SNOQUALMIE

2032

SNOQUALMIE 2032
City of Snoqualmie Comprehensive Plan

Adopted by Snoqualmie City Council
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ACKNOWLEDGEMENTS

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Vision & Policy Plan
Table of Contents

A. INTRODUCTION

The 2013 Snoqualmie Comprehensive Plan provides authority and a policy framework for development and conservation in the City and its urban growth area for the next twenty years. The different elements in this Plan are intended to guide the City's decision-making on community character, land use, housing, transportation, sensitive areas and the natural environment, capital facilities and utilities. Plan goals, objectives and policies express how the community manages change, and articulate the community's future vision - how residents want Snoqualmie to look and function come 2032. This element describes state law on comprehensive plans, provides background on plan development, and reviews how the plan is organized, managed and updated.

"The biggest determinant in our lives is culture, where we are born, what the environment looks like. But the second biggest determinant is probably governance, good governance or a certain kind of governance makes a huge difference in our lives."

-- Nicolas Berggruen

B. SNOQUALMIE 2032: VISION

The Snoqualmie 2032 Vision has been developed to support unified planning for the future of Snoqualmie.

Vision work was shaped by extensive citizen input gathered through various means over a two year period, including input from the Planning Commission; Sustainability Speaker Series; Economic Development Commission; Park Board; Arts Commission; the 2010 Snoqualmie Citizens Survey; and comprehensive plan update workshops. This work distilled the most prominent aspects of the long range vision to guide comprehensive plan goals, objectives, and policy development.

Vision Central Theme

Complete Community: Residents may live, work, play in the city – which is a complete community with housing, jobs, shopping and services, schools/education, open space, parks and recreation, and arts, culture and entertainment for residents of all ages and income levels.

Sustainable Development: The City supports a pattern of resource use that meets human needs, while preserving the environment for present and future generations. As discussed in the Snoqualmie Sustainability Strategy, this concept addresses economic and social considerations in meeting human needs, while maintaining the health of natural systems.

Prosperity: The City experiences economic growth, along with the qualitative gains of added social and environmental value by community development that supports and improves education, health and well-being, community services, recreation, employment, and other features integral to a prosperous community.

Snoqualmie Is:
(Vision Core Components)

A **Unified City** with **Strong Leadership** that cultivates community, incorporates equity and sustainability in decision-making, fosters partnerships to further local and regional goals, and thrives through active citizen engagement.

A **Healthy, Diverse Economy,** with stable businesses and employment opportunities that benefit our citizens, the surrounding rural area, and the region as a whole.

A **Distinctive Sense of Place** based on the quality and beauty of our natural and built environment, valued historic and cultural assets, unique local character, and a commitment to quality design and construction.

A **Livable and Complete Community** where our citizens can live, work, socialize, and recreate in a safe, attractive, and healthy environment.

The Snoqualmie 2032 Vision is comprised of the above main theme and 4 core components, each defined by specific ideas that more fully articulate the community's vision for 2032. Rather than state the vision in the future tense, it is stated in the present tense to signify a future where the vision has been achieved.

Now and going forward, the goals, objectives and policies of the Snoqualmie Comprehensive Plan are and will be directed by the Snoqualmie 2032 Vision.

SNOQUALMIE 2032 VISION

(To be read prefaced as "we have" or "we are.")

Snoqualmie is a complete, sustainable, and prosperous small city that provides a high quality of life and maintains long-term value to the benefit of our citizens and the region.

Unified Community with Strong Leadership

- A collection of physically connected neighborhoods that promote identification with the total Snoqualmie community.
- A shared appreciation for this small city's unique character and distinctive local feel – a place where residents, businesses, and visitors want to be.
- Consistency, year-in and year-out, in setting priorities according to their importance over the long-term, rather than focusing only on short-term gains.
- An ongoing commitment to maintaining balance among competing priorities, as evidenced by the way we allocate public resources and funds.
- A commitment to coordinated implementation of the Snoqualmie 2032 Vision by all city departments.
- Strong local governance that uses best practices in conducting city business to ensure efficient and effective use of public resources in maintaining the community's desired quality of life.
- Effective partnerships with neighboring governments, public agencies, non-profit organizations, and private entities to support mutual interests and achieve our vision.

Healthy, Diverse Economy

- A diverse economic base that generates sufficient revenue to provide and maintain the facilities and services needed and expected by our citizens.
- Mature and highly productive business and light-industry centers integral to the success of both the local and regional economy and that provide family-wage jobs for residents of Snoqualmie and the surrounding rural area.
- Conveniently-located retail shops and services that meet the needs and interests of Snoqualmie area citizens and visitors.
- A vital local hospital and wellness industry that meets the preventative and emergency health needs of our local population, provides employment, supports tourism, and promotes livability.
- A continued economic development focus on individual businesses and commercial and mixed-use developments that set new regional standards for use of green and clean technologies in sustainable and integrated land use, site planning, building design, and operation.
- A beautiful and healthy natural environment and a distinctive sense of place, which provides a high quality of life and continues to attract talented individuals and business investment.
- A recognized tourism destination supported by:
    - A revitalized and expanded historic downtown commercial area that provides a unique visitor and community retail center.
    - A world-class railroad history facility that is an historic downtown focal point that serves both the place-making and economic interests of Snoqualmie.
    - A unique urban separator and open space resource at Meadowbrook Farm, which provides a diverse range of educational and recreational facilities, programs and activities showcasing the natural and cultural history of the upper Snoqualmie Valley.
    - A range of lodging accommodations and conference facilities that support both tourism and local business needs.
    - A regional destination for public and private active and passive recreation activities and tourism venues, with a variety of access sites to exceptional riverfront or mountain views enhancing the outdoor experience.

Distinctive Sense of Place

- A protected, restored, and valued system of wetlands, streams, and natural areas that define neighborhoods, protect wildlife habitat and ecosystem services, provide for an extensive and easily accessible trail network, and maintain a predominantly green community setting.
- A "Tree City USA" community that appreciates the beauty and benefits of the urban forest and supports a citywide network of healthy and mature street, park, and open space trees.
- A destination "Riverwalk" trail loop along both sides of the Snoqualmie River that connects multiple areas of the city; links with the Snoqualmie Valley Trail and Preston-Snoqualmie Trail; showcases our natural beauty; and is widely enjoyed by residents and visitors alike.
- Vibrant pedestrian-oriented retail districts with a recognized character distinctive to Snoqualmie rather than "anywhere USA."
- A revitalized downtown core comprised of rehabilitated historic buildings, storefronts, and compatible infill buildings that enhance the district's unique history, character, and continued economic success, particularly for tourism.
- A built environment of superior design, energy efficiency, construction quality, and durability achieved through careful attention to detail at every scale, including public and private spaces and structures.
- Well-maintained public and private properties and infrastructure conveying a unified sense of community pride.
- A multifaceted and vibrant local arts community that provides a variety of cultural events, arts activities, and education programs; supports an annual summer festival; and is supported by diverse public artworks throughout Snoqualmie that activate public spaces and enrich the lives of our citizens and visitors.

Livable and Complete Community

- Diverse neighborhoods that offer a variety of housing and lifestyle choices for all incomes and life stages with convenient access to shopping, employment areas, schools, recreation and cultural facilities, parks, and natural open spaces.
- An older housing stock within the floodplain that remains a vital part of the community's overall housing diversity and historic neighborhood appeal.
- Levels of public safety and emergency response that maintain a sense of security throughout the city and establish Snoqualmie as a safe place to live, visit, or locate a business.
- Flourishing mixed-use centers that provide vibrant living, working, shopping, and entertainment opportunities for residents and visitors.
- Employment opportunities matching the community's diverse households.
- An outstanding public and private education system that enables quality education for youth and provides opportunities for life-long learning.
- A robust and well-integrated system of parks, open spaces, trails, activity venues, and programs, along with land use and community design strategies that encourage residents to maintain active, healthy lifestyles, enjoy the outdoors, and serve as worthy stewards of our natural environment.
- An efficient multi-modal transportation system that promotes accessibility and facilitates choice in traveling to, from, and within Snoqualmie, including convenient local and regional bike and transit routes connected to key destination points and amenities, such as neighborhoods, schools, parks, community centers, employment centers, shopping, tourist attractions and cultural facilities.
- A local community center that helps to serve the physical, recreational, and social needs of Snoqualmie Valley residents.
- A sustainable city that continues to reduce its ecological footprint and greenhouse gas emissions by implementing best practices for energy and water conservation; low-impact storm water management; recycling; green building practices; promotion of locally grown food; and urban forestry.

C. SNOQUALMIE & THE REGIONAL VISION

The 2013 Snoqualmie Comprehensive Plan advances a sustainable approach to planning the city's future growth and development. The plan commits to restoring ecosystems, conserving key habitats, cleaning up polluted waterways, and reducing the greenhouse gas emissions of the city as well as the community at-large. The plan elements utilize updated residential and employment targets aligned with the VISION 2040 Regional Growth Strategy, shows the ability to meet those targets, and establishes an affordable housing goal for this planning period as required.

VISION 2040

VISION 2040 is the Puget Sound Regional Council (PSRC) multicounty plan, which guides regional plans and with which local plans must be consistent. PSRC is designated by Washington State, under federal and state law, as the central Puget Sound Metropolitan Planning Organization (MPO) & Regional Transportation Planning Organization (RTPO); this area includes King, Kitsap, Pierce & Snohomish counties.

See www.psrc.org/growth/vision2040

The 2013 Snoqualmie Comprehensive Plan addresses each of the policy areas in VISION 2040, including policies on habitat protection, water conservation, air quality and climate change. The plan calls for urban development, advances environmentally friendly development techniques, and commits to conservation methods in the provision of public services. The housing element supports expanded housing production at all income levels to meet the diverse needs of both current and future residents. The economic development element supports creating jobs, investing in all people, creating great communities and maintaining a high quality of life. The transportation element advances cleaner and more sustainable mobility, with provisions for complete streets, green streets and context-sensitive design, and supports alternatives to driving alone. The City coordinates transportation planning with neighboring jurisdictions, including level-of-service standards and concurrency provisions. The plan includes provisions ensuring that a walkable, healthy environment remains available for future generations to come.

Defined as a Free-Standing City in VISION 2040, the Plan identifies local, small city centers in Snoqualmie, and prioritizes capital facility improvements per comprehensive plan guidance. Finally, the comprehensive plan addresses local implementation actions consistent with VISION 2040, in Element 2, Implementation.

D. CIVIC ENGAGEMENT

Public participation is a valued part of the planning process. It is important that citizens are actively engaged throughout the process because changes in policy and land use directly affect the community. It is required by the Growth Management Act to develop and broadly disseminate to the public a public participation program identifying the procedures providing for early and continuous participation in the amendment process. Various methods are used to involve the public, including public hearings, public notices, workshops and surveys.

Achieving civic engagement goes beyond providing the passive opportunity for involvement, but actively applying best practices to elicit and continue citizen interaction in the public process. Snoqualmie defines the primary purpose of civic engagement as the involvement of residents to guide local government decisions, which in turn shape the lives of citizens and the community itself. City leadership connects with residents in many ways for the planning and implementation of policies, programs, resources and services; as such, community building, outreach, public trust, strategic communication, partnerships, public awareness, and educational activities are all important to the City.

The City strives to work collaboratively with the community to address issues affecting daily life, affirming and supporting the right of residents to have a say, and to get involved in the business of local government. Leadership within the City of Snoqualmie recognizes that community members are a valuable source of expertise that influence local governmental decisions and improve the ultimate quality of its services, programs and resources. Multiple forums can help track the successes of, or areas for improving, civic engagement. Some examples include the Citizen's Academy; the number of city listserv email addresses; number of events held within the city; and interactions with other primary community bodies, such as the Snoqualmie Valley Chamber of Commerce and Snoqualmie Valley School District. Even tracking city compliments and complaints can be useful, showing that citizens are interested and engaged in local events.

City Leadership is committed to engaging the community, recognizing that an engaged community offers:

- Discussions to help decide on comprehensive and sustainable outcomes
- A range of differing views and opportunity to broaden understanding of what comprises the community
- Collaborative learning experiences, including those between residents and local government leadership
- Identifying unknown or under expressed needs, opportunities, and challenges
- Improving relationships within the community
- Promoting mutual respect among stakeholders and community members

In order to promote and facilitate Civic Engagement, the City is committed to:

- Building personal relationships with the community
- Establishing a welcoming, collaborative and professional atmosphere
- Enhancing accessibility with community members, demonstrating responsiveness to needs and concerns
- Continuously developing new and alternative means for Civic Engagement
- Partnering with public, private and nonprofit organizations
- Continuing to enhance a community presence

D.1 PLAN HISTORY & DEVELOPMENT

As stated before, visioning and plan development has been shaped by citizen input gathered through various means over a three year period, in meetings and workshops with citizens as well as City boards, commissions and council committees, including as the Planning Commission, Economic Development Commission, Park Board, and Arts Commission. The Comprehensive Plan update process began with a Sustainability Speaker Series and visioning workshop starting in February, 2010.

The following outlines public involvement throughout the original development of the plan:

- 02/10 – 06/10 — Sustainability Speakers Series
  Held during Planning Commission meetings
- 06/10 — Open House: Snoqualmie 2030: The Next Generation
  Visioning Workshop
- 10/9/10 — Economic Development Retreat
  Visioning; with the Economic Development Commission
- 07/10 – 2/11 — Planning Commission Meetings
  Vision & Element Goals
- 1/11– 2/12 — Open Space, Parks & Recreation Plan
  (Developed as a separate plan via regular Parks Board meetings)
- 3/11– 10/12 — Planning Commission Meetings
  Draft Land Use, Housing, Transportation, Economic Development Policies; Draft Land Use, Housing, Transportation analysis.
- 10/15/12 — PUBLIC HEARING & Open House – Planning Commission
  Vision; Draft Policies for Land Use, Housing, Transportation, Economic Development
- 1/13 — City Council Retreat
  Draft Comprehensive Plan Materials Review
- 10/12– 4/14 — Planning Commission Meetings
  Draft Comprehensive Plan Elements
- 3/13– 7/14 — City Council Meetings
  Draft Comprehensive Plan Elements
- 2/13 – 9/13 — Economic Development Commission Meetings
  Draft Economic Development Element Policies
- 9/30/13 — Economic Development Workshop

With the Economic Development Commission

- 04/21/14 PUBLIC HEARING – *Planning Commission*
  Planning Commission Recommended Draft

The plan evolved over several years of work involving professional staff and consultants, continuous planning commission review and deliberation, and participation and response by concerned citizens. The comprehensive plan will be monitored and updated over the coming years to ensure that it responds to changing conditions and continues to reflect community interests.

E. GROWTH MANAGEMENT ACT

The 2013 Snoqualmie Comprehensive Plan is intended to meet the requirements of the State Growth Management Act (GMA), which was adopted by the Washington State Legislature on March 9, 1990 (SHB 2929, Chapter 17, 1990 Laws of Washington). GMA requires that the State's fastest growing counties, and the cities within them, to prepare comprehensive plans guiding conservation and development for a twenty-year period. GMA makes the comprehensive plan the legal foundation and guide for all subsequent planning and zoning in a city, which in turn must be consistent with, and implement, the Plan. According to GMA, plans must also be consist and concurrent: this means the plan must be both internally consistent and consistent with the plans of other jurisdictions sharing a common boundary; and, appropriate public facilities and services must be in place, or funds committed for their provision, within six years to concurrently serve new development.

Planning Enabling Act

The 2012 Snoqualmie Comprehensive Plan has also been prepared under the State Planning Enabling Act, RCW 35A.63. Under this Act, cities must prepare comprehensive plans with elements on land use, capital facilities, transportation, utilities and affordable housing. Plans may include optional elements such as environment, urban design, economic development, and others as desired by local legislative bodies. Upon comprehensive plan adoption, the Act authorizes cities to adopt official maps and development and subdivision regulations, zoning codes, public improvement schedules, and other actions as necessary for plan implementation.

The Growth Management Act requires counties, in cooperation with cities, to designate urban growth areas (UGA). All cities must be within an urban growth area, which must include areas and densities sufficient to accommodate the 20-year urban growth expected in the City. The GMA also establishes mandatory elements for local comprehensive plans, including land use, housing, capital facilities, utilities, and transportation. Optional elements are allowed, such as solar energy, conservation, recreation, economic development and sub-area plans. Although they are not cited by the Act as mandatory plan elements, the GMA also requires counties and cities to designate, and adopt regulations to protect, sensitive (critical) areas and resource lands. These regulations were to be adopted by September 1, 1991; to comply, Snoqualmie adopted the Sensitive Areas Ordinance (SAO - SMC 19.12, Ordinance 663) on August 12, 1991, and then amended the SAO to add Fish and Wildlife Conservation Areas and Critical Recharge Areas provisions in May, 1992.

Local governments were to adopt their initial comprehensive plans by July 1, 1994. According to updates to RCW 36.70A.130 (5), King County cities must update both comprehensive plans and development regulations on or before June 30, 2015, and every eight years thereafter. Development regulations must be consistent with and implement the comprehensive plan.

E.1 CONSISTENCY: CPPS, CITY DOCUMENTS & INTERNAL CONSISTENCY

The GMA directed counties, in conjunction with their cities, to prepare and adopt framework policies to guide the development of comprehensive plans specific to jurisdictions. The development of the goals, objectives and policies contained in the Comprehensive Plan considered the direction provided by the 2012 King County Countywide Planning Policies (CPPs), adopted November 2012 and amended December 3, 2012, as well as Department of Commerce 2013-2015 GMA update guidance and the Puget Sound Regional Council regional strategy, *Vision 2040.*

The Comprehensive Plan is a broad and general plan that lays out overall goals of the city. The Plan is intended to be internally consistent; the elements of this plan are consistent with one-another. There is also consistency between the Comprehensive Plan and additional plans that tackle specific issues necessary to implement plan goals. The Comprehensive Plan references and incorporates other cited city planning documents such as the Sewer System Comprehensive Plan, City of Snoqualmie Water System Comprehensive Plan, and the City of Snoqualmie Hazard Mitigation Plan.

F. PLAN ORGANIZATION

The Comprehensive Plan includes the five required elements and additional optional elements to address city growth and development issues. Each element contains an introduction and element goal, background discussion and sub-sections pertaining to specific issues and Growth Management Act (GMA) requirements. GMA also requires the plan to include descriptive text covering objectives, principles as well as maps and standards used for plan development. Comprehensive Plan policies are contained together, in their element order, at the beginning of the Plan for easier reference and implementation.

Snoqualmie 2032
Element Order

Element 1: Vision & Policy Plan
Element 2: Implementation
Element 3: Economic Development
Element 4: Housing
Element 5: Community Character & Design
Element 6: Environment
Element 7: Land Use
Element 8: Transportation
Element 9: Capital Facilities & Utilities

Updates & Amendments

The comprehensive plan is intended to serve as a long range guide for City growth and development. To effectively plan for the future, the comprehensive plan must remain current and responsive to changing local or regional circumstances. Review of the comprehensive plan provides an opportunity to evaluate policy effectiveness in achieving community goals and objectives, and to monitor how well actual development matches growth assumptions and targets.

Plan amendments can include modifications, additions or deletions of plan sections or policies. As the comprehensive plan evolves, supporting documents, plans and the municipal code may need to be updated as we. The schedule to review and amend the Comprehensive Plan must be consistent with the requirements of the GMA and county regulations. GMA states that Comprehensive Plan amendments can occur no more than once a year. The City can amend the Comprehensive Plan annually if needed, and usually are done for technical updates or revisions that do not require substantial policy changes. Amendments can be initiated by any citizen, neighborhood group, or by the Planning Commission or the City Council.

The Planning Commission is the primary citizen advisory board to the Snoqualmie City Council on land use and development matters. The Commission works with city staff to prepare development regulations which include zoning, platting, shoreline and environmental regulations. One of the primary responsibilities of the Planning Commission is to prepare and maintain the Comprehensive Plan. City Council makes final decisions and is responsible for considering the Planning Commission recommendations for adopting the Comprehensive Plan. City Council also adopts ordinances, programs the City's budget and levies taxes used to implement the plan.

POLICY PLAN

This contains the aggregated policies for all comprehensive plan elements. Comprehensive Plan policies may apply to multiple planning subjects. Policies are located in the sections where they are believed to be most pertinent, but are intended to build on each-other, working holistically across topic areas to achieve the vision for the City over the next twenty years.

IMPLEMENTATION

Goal 2: ***A comprehensive plan and development regulations that are kept current, implemented, embody the community vision for the future and meet the requirements of the State Growth Management Act.***

Objective:

2.2 **The City's planning activities are performed and capital budget decisions are made in conformity with the comprehensive plan.**

Policies:

2.1.1 Provide, manage and publicize a regular comprehensive plan docketing and amendment schedule.

2.1.2 Manage the State-mandated periodic update of the comprehensive plan to provide sufficient time and public involvement for reconsideration of the vision, land use plan and element policies.

2.1.3 Update development regulations as necessary to implement comprehensive plan revisions and stay current with State and Federal requirements.

2.1.4 Department programs and work plans shall be in conformance with and implement the Comprehensive Plan.

2.1.5 The Six-Year Capital Improvement Plan (CIP) should support the long term vision, implement the comprehensive plan, and be updated annually in conjunction with the biennial budget adoption or review process.

2.1.6 Develop and implement a robust civic engagement plan to more effectively engage the public in achieving the vision of the City Comprehensive Plan.

ECONOMIC DEVELOPMENT

A vibrant, local economy is essential to Snoqualmie's long term community vitality and fiscal health. The City strives to create, maintain and grow value for its citizens - the residents, property owners and businesses who have invested, or will invest, in Snoqualmie. Value should always be considered in terms of both financial and qualitative returns, including opportunities for business growth, added jobs and increased City revenues, along with qualitative assets such as a healthy and attractive environment, a sense of safety, and local cultural amenities. A strong local economy with a balance of jobs and housing is central to our vision of growing as a "complete community" where one can live, work, shop and enjoy life.

Goal 3: ***A vibrant and thriving small city economy that offers jobs providing salaries that match local housing costs; offers goods and services to meet the needs and wants of our citizens, visitors and employers; generates revenue to support City services; and supports Snoqualmie's distinctive character and quality of life.***

1. INFLUENCE AND SUPPORT FOR ECONOMIC VITALITY

Objective:

3.1 An environment that attracts quality, well-capitalized businesses and offers a compelling reason to justify investment in Snoqualmie.

Policies:

3.1.1 Advocate for Snoqualmie's economic interests at the county, state and federal level to influence decisions that impact the City.

3.1.2 Ensure public investments are targeted and equitable, to promote the vitality of all City commercial areas and businesses.

3.1.3 Acknowledge the economic context created by Snoqualmie Nation development and pursue opportunities for beneficial connections and coordination.

3.1.4 Communicate and coordinate regularly with the business community regarding citywide economic development goals, objectives and policies, and seek input on new directions.

3.1.5 Develop and annually review with the Economic Development Commission a Six-Year Strategic Plan for Economic Development.

3.1.6 Participate in marketing and promotional activities that create awareness of the City's business climate and specific attributes and promote opportunities for business development.

3.1.7 Work with the Snoqualmie Valley Chamber of Commerce to encourage and assist local businesses to have a more robust website and social media presence, and to utilize evolving technologies for business promotion.

3.1.8 Consider the impacts on local business from new policies, regulations or programs prior to enacting them.

2. LAND USE & INFRASTRUCTURE

Additional Economic Development policies are in Land Use Section 5.5 *Commercial and Industrial Land Use*.

Objective:

3.2 Land use plans, regulations, review processes and infrastructure improvements support economic growth and vitality.

Policies:

3.2.1 Provide sufficient, appropriately zoned area to support growth of targeted industry clusters, and improve the local jobs/housing balance.

3.2.2 Plan for and maintain sufficient, suitable zoned capacity to accommodate business growth in order to capture two-thirds of local resident spending on retail goods and services.

3.2.3 Provide efficient, high-quality project review services for business development projects, including no-cost pre-application review and expedited permitting.

3.2.4 Support home-based businesses that are compatible with neighborhood character, while managing adverse impacts by such actions as limiting signs, hours of operation, external uses, parking and truck deliveries.

3.2.5 Include a market factor when planning and zoning for commercial and industrial uses.

3.2.6 Pursue transportation improvements and amenities that improve quality of life for City residents and support business growth, specifically:

a. Work with the Washington State Department of Transportation for redesign or removal of the westbound weigh station on I-90 near exit 25 to allow for a dedicated right turn lane onto I-90 from the Snoqualmie Parkway;

b. Plan and provide complete street road connections from the Snoqualmie Parkway and Snoqualmie Ridge Business Park, and from the Snoqualmie Casino through the Snoqualmie Hills planning area, to downtown Snoqualmie;

c. In conjunction with Metro and employers, pursue additional bus service, shared ride options, and park and ride facilities to serve local employers and employees, as well as resident commuters.

3.2.7 Ensure sufficient water capacity and wastewater treatment capacity are available to support planned economic development within the mill site and urban growth area.

3. EMPLOYMENT

Objective:

3.3 The City has jobs providing salaries that match local housing costs, and ensure stable revenues to support City services.

Policies:

3.3.1 Build on local opportunities and competitive advantages by targeting specific business and industry sectors identified by the Puget Sound Regional Council's regional economic development strategy.

3.3.2 Expand the Snoqualmie Ridge Business Park to the east within the West Snoqualmie Hills Planning Area.

3.3.3 Market Snoqualmie's strengths to proactively attract targeted industry sectors through activities such as developing industry relationships, increased presence in trade organizations, coordination with brokers, and targeted advertising.

3.3.4 Apply zoning controls that limit uses with low employment density, lower wage jobs, and/or minimal tax revenue to the City, particularly in the Snoqualmie Hills and Mill Planning Areas, including uses such as warehouse/distribution, server farms and similar uses.

3.3.5 Support and encourage new and expanded business and industry growth that provides higher employment density, jobs with salaries matching local housing costs, and employment opportunities suited to the education level and skills of our current and future population.

3.3.6 Encourage, pursue and promote opportunities for job skill training and higher and continuing education within the City.

4. COMMUNITY RETAIL

Objective:

3.4 The City has thriving community and neighborhood retail and civic centers serving residents, employees and visitors, which are distinguished by their target market, business mix, unique character and civic amenities.

Policies:

3.4.1 Employ business mix, urban design, branding, and marketing strategies that emphasize the strengths, opportunities and economic development objectives of the City's different retail business districts, as shown in Figure 3.1.

3.4.2 Recognize the contribution of existing small business to the Snoqualmie community and work to retain and recruit smaller-scale, locally-based, and independently-owned businesses within the Downtown, Meadowbrook and Snoqualmie Ridge retail areas.

3.4.3 Maintain the City's distinct "main street" retail environment, requiring buildings and storefronts in the Downtown, Meadowbrook, and the Snoqualmie Ridge retail areas to be set to adjacent public street right of way, to maintain pedestrian orientation, storefront visibility and streetscape character.

3.4.4 Maintain limits on retail store size and height appropriate to the existing and desired character of each retail district.

3.4.5 Optimize the use of ground floor spaces for retail uses by directing office, service and other non-retail uses to side streets and upper floors within retail districts.

3.4.6 Expand the Downtown commercial district as directed by the Downtown Master Plan, to allow for a larger critical mass of retail business, strengthen its tourism potential, and maintain its traditional function as a civic center and community gathering place.

3.4.7 Encourage formation of non-profit Downtown and Snoqualmie Ridge merchant organizations dedicated to implementing the National Main Street 4-Point approach to improve retail district vitality and to qualify for a Main Street Program tax incentive.

3.4.8 Promote infill and redevelopment within the Downtown commercial area, consistent with the historic and landmark district purposes and design standards, including provision of infill storefronts oriented to Falls Avenue, as recommended by the Downtown Vision and Downtown Master Plans.

3.4.9 Reserve the vacant City-owned King Street property for a future commercial development with a ground floor, retail, anchor tenant oriented to Railroad Avenue and King Street. Apply appropriate land use and design specifications as directed by the Downtown Master Plan and Economic Development, Marketing and Branding Plan, and in the interim promote temporary uses and events to support Downtown tourism.

5. TOURISM

Objective:

3.5 The City has increased and directed visitor traffic to support tourism as a mainstay of the City's economic vitality.

Policies:

3.5.1 Ensure land use regulations support and promote development of appropriate forms of overnight lodging for the Downtown, Snoqualmie Falls and Snoqualmie Ridge commercial areas.

3.5.2 Maximize the Snoqualmie River as a tourism asset by protecting downtown riverfront properties from erosion and opening the riverfront to visitors by developing a looped "riverwalk" trail with connections to the local Centennial Trail and the regional Snoqualmie Valley and Preston-Snoqualmie trails.

3.5.3 Promote historic and cultural events, activities and urban design elements that build a distinctive sense of place and attract visitors, such as art and music events and public artworks.

3.5.4 Provide attractive and engaging gateway and place-making elements along with effective wayfinding signage for the Downtown, Snoqualmie Ridge and Kimball Creek Village retail centers, as shown in Figure 5.1, to enhance district identity and support tourism.

3.5.5 Improve the retail business mix, complete façade and streetscape improvements, preserve historic properties, apply appropriate design and maintenance standards, and implement Downtown Master Plan directives for public event and community gathering places to enhance the distinctiveness and tourism draw of the downtown.

3.5.6 Promote and market Snoqualmie to outside users, prospective businesses and local residents as a place to engage in numerous outdoor recreation activities, and appreciate the City's unique scenic and natural landscape.

3.5.7 Make optimum use of Meadowbrook Farm, Snoqualmie Point Park, and other large park and open space properties as premier event venues, while also promoting their passive use and enjoyment by visitors and local residents.

3.5.8 Work with the Northwest Railway Museum to enhance the tourism draw of their facilities and collection, as recommended in the Economic Development, Branding and Marketing Plan.

3.5.9 Support resource-based industries in the local economy, such as outdoor recreation oriented business, locally-grown food production and artisan food entrepreneurs.

6. COMMUNITY DISTINCTIVENESS & QUALITY OF LIFE

Additional policies on this topic may be found in Element 5 Community Character.

Objective:

3.6 The City protects and enhances the community's quality of life attributes and distinctive character to promote desired economic development.

Policies:

3.6.1 Balance development with environmental protection and conservation to maintain and enhance the health and beauty of the City's natural setting.

3.6.2 Uphold a high standard of design and property maintenance throughout the City.

3.6.3 Enhance the cultural and social qualities within Snoqualmie that will be attractive to targeted businesses and their workforce.

3.6.4 Build a stronger workforce and community as a whole by supporting programs and initiatives that promote active living and healthy eating.

HOUSING

Housing is one of the fourteen goals of the Growth Management Act (GMA) for City Comprehensive Plans, and aims to encourage the availability of affordable housing to all economic segments of the population, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock. These policies also seek to retain the community's small town qualities, advance a balance of jobs and housing, and guide housing retention and development in Snoqualmie over the next twenty years

GOAL 4: ***A broad range of durable and energy-efficient housing options are available for all income levels to support a complete and sustainable community.***

1. HOUSING PRESERVATION AND IMPROVEMENT

Objective:

4.1 **The integrity of Snoqualmie's existing older neighborhoods has been maintained to provide a range of diverse, affordable housing choices that supports the community's character and distinctiveness.**

Policies:

For additional housing policies see Policy Plan Section 7.4 *Residential Land Use*.

Additional flooding policies are in Policy Plan Section 7.3 *Floodplain Land Use*, and Policy Plan Section 6.5 *Frequently Flooded Areas*.

4.1.1 Maintain zoning and development regulations that support the continued integrity and ongoing residential use of existing older neighborhoods and housing wherever feasible.

4.1.2 As available, seek funding to assist homeowners in the 100 year floodplain with housing elevations.

4.1.3 Make street, storm drainage, sidewalk, streetscape and other infrastructure improvements as appropriate to support revitalization of housing, protect significant capital investments, avoid higher costs from deferred maintenance, and preserve property values.

4.1.4 Work with Residential Owners Associations like the Ridge ROA to implement comprehensive plan policies.

4.1.5 Support the rehabilitation or relocation of existing, structurally sound housing, and provide referrals where appropriate to agencies such as to the King County Home Repair program to facilitate reuse.

4.1.6 Assist in the effort to reach low-income households eligible for free weatherization through existing programs.

2. DIVERSE HOUSING

Objective:

4.2 **A sufficient mix of housing types, sizes, costs and densities enables current and future citizens from a wide range of economic levels, age groups and household make-ups to live within the City and provides housing to meet the needs of local employees.**

Policies:

For a list of housing types, please see Housing Element Section K *Housing Typology*.

4.2.1 Encourage innovative housing that helps promote City goals for affordability, high-quality sustainable design, and housing to meet diverse household sizes, types and age ranges, and consider flexibility in density and design standards to support such projects.

4.2.2 Encourage accessory dwelling units and small-lot housing through appropriate regulation and incentive programs, with regulations that minimize procedural requirements and address neighborhood compatibility.

4.2.3 In residential areas with alley access, encourage and allow for small-lot and cottage housing subject to regulations to address issues of neighborhood compatibility, such as reduced or aggregated parking areas, streetscape orientation, common amenities and open space.

4.2.4 Assure that land use regulations allow for the siting and operating of emergency, transitional and permanent special needs housing, and ensure that sufficient land is zoned to allow their location near shops, services and transit.

4.2.5 To increase opportunities for seniors to live in accessible housing with nearby services, allow and encourage a range of housing types for seniors, such as independent living, various degrees of assisted living, and skilled nursing care facilities, and provide incentives for developing senior housing such as reduced or waived permit fees, density bonuses and reduced parking requirements.

Universal Design attempts to meet the needs of persons of all ages, size and abilities. Please see Housing Element Section G.3 *Demographics & Senior Housing* for further information.

4.2.6 Require some number of living units in Planned Residential zones to be designed with Universal Design principles, so that there is at least one no-step entrance, the master bedroom suite or all bedrooms are on the ground floor and the floor plan is wheelchair-friendly.

4.2.7 Support the development of rental apartments that are appropriate for families with children, including the provision of services, recreation and other amenities as feasible.

3. AFFORDABLE HOUSING

Objective:

4.3 A sufficient amount of quality affordable housing with healthy living environments is available to meet the needs of low and moderate-income residents, and provide the opportunity for our business' lower-wage employees to live within the City.

Policies:

4.3.1 Strive to meet the targets established and defined in the Countywide Planning Policies for low- and moderate-income housing as a percentage of projected overall household inventory.

4.3.2 Work with County, State, Federal and non-profit organizations to create and retain affordable housing, and apply for federal and state housing funds available to assist in the development or improvement of affordable housing.

4.3.3 Evaluate the supply and condition of affordable housing in the City every five years to measure the effectiveness of City housing policies, regulations and incentives and provide assistance to retain low-income units where feasible.

4.3.4 To the maximum extent feasible, require affordable housing to be: provided in new Mixed Use, Planned Residential and Innovative Development district projects; either proximal to services or dispersed throughout new developments; and include an appropriate mix of rental and owner-occupied units that are made available to people with qualifying incomes.

4.3.5 With the cooperation of other government entities, non-profit housing organizations, and housing developers, investigate alternative means for keeping affordable housing affordable, so that units do not immediately appreciate beyond the reach of applicable income levels.

4.3.6 Consider strategies and mechanisms such as density bonuses, expedited permit processes, and where allowed by law, tax waivers and relief from development fees, to encourage very low- and low-income housing development.

4.3.7 Grant priority in the development review process for projects providing 15 percent or more of the proposed residential units as affordable units.

4.3.8 Encourage development and utilization of Community Land Trusts as one tool for addressing the community's affordable housing needs.

4. SUSTAINABLE DESIGN AND CONSTRUCTION

Objective:

4.4 The City supports sustainable housing design through applicable code, programs, partnerships and educational efforts.

Policies:

4.4.1 To reduce housing operation and maintenance costs, energy use and impact on natural resources, encourage the use of high quality, durable, and low-maintenance building materials, high-efficiency energy systems, and environmentally responsible building principles in all new housing and renovation projects.

4.4.2 Provide education to citizens on green housing renovation options and energy conservation.

4.4.3 Require new housing developments to provide streetscape improvements, open space, and recreation amenities to support the City's urban forest goals, establish a sense of neighborhood cohesion and permanence, and promote community distinctiveness.

4.4.4 Utilize floor area ratio and other standards as appropriate to promote housing that is affordable, in-scale with the lot, and has reduced environmental impacts over its lifetime.

4.4.5 Maintain a Housing Inspection and Code Enforcement Program to ensure the continued safety and viability of rental housing, with annual Building Department inspections.

COMMUNITY CHARACTER

Community character refers to the 'flavor' of a place, and includes diverse elements such as the architecture, landscape, community activities and the demographic mix of people. Community character resources include both natural and man-made features that contribute to the City's overall livability and positive sense of place. Local heritage, scenic beauty, a natural atmosphere and traditional design are important aspects of Snoqualmie's character.

Goal 5: ***Snoqualmie's community character is preserved, protected and enhanced, and future growth has been sensitively integrated into the City through design and the protection of character-defining resources.***

1. DESIGN CHARACTER AND QUALITY

Objective:

5.1 **The unique character and attractiveness of Snoqualmie has been maintained, with new development integrating smoothly with the existing built environment, helping it thrive as a rich tourist and commercial center while maintaining the natural and aesthetic quality of the Snoqualmie landscape.**

Policies:

5.1.1 To maintain the natural character and quality of the Snoqualmie landscape, fully implement all policies of the Environment Element and the Parks, Open Space and Recreation Element.

5.1.2 Protect roadside views of the shoreline and other natural features from unnecessary clearing, signage and other visually degrading features or practices, and allow for the maintenance of existing view corridors through vegetation management that minimizes sensitive areas impacts.

5.1.3 Participate with the Mountains to Sound Greenway Trust and other such trusts to protect the scenic nature of the I-90 corridor and the upper Snoqualmie Valley.

5.1.4 Encourage all public and private projects to incorporate neighborhood profile design recommendations from Element 3 Community Character and incorporate pertinent sections of the 2006 Downtown Master Plan.

5.1.5 Employ zoning and development standards for site planning, building design, and landscaping that encourage appropriate infill development and maintain or enhance neighborhood character.

5.1.6 Maintain City historic district and, where eligible, King County landmark district designations for the downtown and Meadowbrook commercial districts and ensure site and building changes are consistent with historic character through appropriate design standards and other regulations.

5.1.7 Use a Design Review Board to oversee commercial and industrial development, including site planning, exterior features, parking, signage, landscaping, sidewalk design, lighting and related elements.

For the more information on the Design Review Board, see Element 7 Land Use.

5.1.8 Maintain exterior lighting standards that promote dark-sky maintenance throughout the City.

2. HISTORIC AND CULTURAL RESOURCES

Objective:

5.2 Buildings, districts and landscape features with historic value, as well as the story of Snoqualmie's history, have been preserved to support sustainable development and provide a focus of civic pride and identity.

Policies:

5.2.1 Work individually and cooperatively to identify and evaluate important aspects of historical and cultural heritage and adopt appropriate regulations or other strategies to protect these resources.

5.2.2 Continue to support the downtown Snoqualmie historic district with urban design, streetscape and park improvements supporting the historic theme.

5.2.3 Support the preservation of Snoqualmie Valley history and culture by working with and supporting the efforts of heritage organizations and facilities such as the Snoqualmie Valley Historical Society and Museum, the Northwest Railway Museum, King County, Native American tribal organizations, and other local, state and national preservation agencies.

To assist with the preservation of local culture and history, and pursuant to State Law, the city requires property owners and developers to immediately stop work and notify the city and affected Indian tribes if anything of possible archaeological interest is uncovered during excavation. Advance permits are also required in areas known to contain archeological artifacts, requiring an archaeologist to perform an inspection or site evaluation in coordination with affected Native American tribes.

5.2.4 Consider local heritage when naming City streets and facilities.

5.2.5 Maintain an inter-local agreement with King County for historic preservation assistance and landmark designation purposes.

5.2.6 Maintain and update an inventory of historic sites, districts and buildings within the City.

5.2.7 Work with property owners and developers to implement best management practices and/or adaptive reuse strategies that will preserve the character and viability of our historic sites, buildings, districts, landscape features and neighborhoods.

5.2.8 Pursue grants and technical assistance as available to assist property owners with the preservation and rehabilitation of storefronts and buildings in the Downtown and Meadowbrook historic districts to preserve and restore their historic appearance and economic viability.

ENVIRONMENT

Snoqualmie is known for its stunning landscapes, which contribute to the City's economic prosperity and quality of life. The natural feel of Snoqualmie is interwoven throughout the City and its neighborhoods, attracting tourists to enjoy local recreational activities and making this natural quality one of the City's most striking, and therefore most precious, assets. Policies address topics such as flooding, climate change, quality open space and clean storm water.

Goal 6: ***The health, beauty and ecosystem services provided by the City's natural environment are protected and enhanced, and potential hazards to citizen health, welfare and property are minimized.***

1. ENVIRONMENTAL PROTECTION, GENERAL

Objective:

6.1 **Ecosystem health and natural beauty are preserved.**

Policies:

6.1.1 Maintain and implement City Sensitive Areas Regulations that are consistent with the Best Available Science, as required by WAC 365-195-900 through WAC 365-195-925, and WAC 365-190-080.

6.1.2 In protecting and enhancing sensitive areas, incorporate the full spectrum of planning and regulatory measures including the comprehensive plan, shoreline master program, development regulations, stormwater management plans, project mitigation, and state and federal programs.

6.1.3 Strive to increase the number, size, diversity and value of wildlife habitat areas and promote, where appropriate, the coexistence of native plant communities and wildlife alongside other land uses.

6.1.4 Coordinate with other governmental agencies, adjacent communities, non-profit organizations and federally recognized Tribes to protect and enhance the environment through land use planning, fish and wildlife resource management, and by identifying and protecting habitat networks across jurisdictional boundaries.

6.1.5 Locate open space areas to protect critical areas such as wetlands, landslide hazard and erosion-prone areas, and maintain such areas in their natural condition, including native vegetation preservation.

6.1.6 Inventory and remove noxious weeds such as Scotchbroom, English Ivy, English Holly, knotweed, Himalayan Blackberry and other noxious weeds as identified by King County Noxious Weed Control Board from public properties and educate citizens on the importance of their removal on private property.

2. CLIMATE PROTECTION & SUSTAINABLE DEVELOPMENT

Objective:

6.2 **Energy conservation and improved air quality are promoted through land use, transportation, and technological solutions, including increased energy efficiency and a transition to renewable energy sources.**

Additional policies affecting greenhouse gas emissions are in Policy Plan Section 8.4 *Bicycle and Pedestrian System* and Section 8.5 *Travel Demand Management and Environmental Stewardship*

Policies:

6.2.1 Against a projected 2007 baseline, strive to reduce community greenhouse gas emissions 25% by 2020, 50% by 2030, and 80% by 2050.

6.2.2 Develop and implement a Climate Action Plan that includes greenhouse gas emission programs such as incorporating GHG assessments in SEPA review; carbon storage in the urban forest; and the impacts of climate change on the City's hydrological systems.

6.2.3 Encourage lot layout and site design that allows for houses and other buildings to be oriented to optimize passive and active solar access and minimize shade on adjoining properties.

6.2.4 Promote energy efficiency and renewable energy sources by such actions as demonstrating renewable energy at municipal buildings, supporting Northwest Energy Code energy efficiency improvements, and participating in energy-efficiency and conservation awareness programs.

6.2.5 Support and implement the Mayor's Climate Protection Agreement, the King-County Cities Climate Collaboration (K4C), and other multijurisdictional efforts to address climate change, sea-level rise, ocean acidification and other impacts from changing global conditions.

6.2.6 Implement Best Management Practices to reduce the amount of air-borne particulates.

6.2.7 Operate and maintain the City's vehicle fleet to improve fuel efficiency and reduce costs, and whenever possible purchase alternative-fuel, lower-emission or net-zero emission fleet vehicles.

6.2.8 In future development agreements emphasize pursuit of higher standards for durable, energy-efficient developments.

6.2.9 Remove regulatory barriers and create incentives, such as expedited permitted and/or density bonuses, to encourage the use of energy-efficient and sustainable building methods and materials, such as those specified under certification systems like *Leadership in Energy & Environmental Design (LEED), Built Green, Salmon-Safe*, and the *Living Building Challenge (LBC)*.

6.2.10 Reduce landfilled solid waste tonnages through such actions as promoting the use of recyclable and compostable packaging, commercial composting, and the recycling of construction and demolition debris.

3. WATER RESOURCES, AQUIFERS & CRITICAL RECHARGE AREAS

Objective:

6.3 Rivers, streams, floodplains, wetlands, and other water resources within the City are managed for multiple beneficial uses.

Additional water stewardship policies may be found in the Land Use and Transportation Element Policies 7.7.3 & 8.6.6.

Policies:

6.3.1 Coordinate the management and restoration of rivers, streams, wetlands and other water resources within the Snoqualmie watershed through participation in the Snoqualmie Watershed Forum and implementation of the Puget Sound Action Plan.

6.3.2 Ensure that local regulations for surface and stormwater management allow for and encourage Low-Impact Development (LID) practices.

6.3.3 Encourage building construction that uses alternative techniques to minimize impervious surfaces, such as using underground parking where feasible, cooperative parking such as shared and coordinated parking lots, and using "green roofs."

6.3.4 Implement water conservation strategies to increase the capacity for potable water use, and reduce the amount of wastewater to be treated, through such measures as rotating irrigation schedules, and by minimizing or encouraging alternatives to grass lawn in future subdivisions.

6.3.5 Work with the State Department of Ecology, King County and other stakeholders to implement the 1998 East King County Ground Water Management Plan, and develop short and long-term strategies to reduce or eliminate pollution sources and protect public health.

6.3.6 Work in conjunction with King County to take corrective action to remove contaminant loading due to failing septic systems and stormwater runoff in susceptible recharge areas, and consider the issue of mandatory septic tank testing or enforcing sewer line connection as an aquifer protection technique.

Under the State Shoreline Management Act, Shorelines of the State are managed by the City's Shoreline Master Program, including SMC 19.08 and other applicable sections of the Snoqualmie Municipal Code. The Shoreline Master Program is incorporated by reference into this Comprehensive Plan.

4. SNOQUALMIE RIVER, STREAM CORRIDORS & WETLANDS

Objective:

6.4 Natural hydraulic, hydrologic and habitat functions, and scenic and recreational values, of rivers, streams, wetlands and natural drainage courses, are protected.

Policies:

6.4.1 Minimize stream crossings, utilizing bridges rather than culverts whenever feasible, and minimize new utility crossing impacts when possible by using techniques such as bridges, tunneling, or other innovative methods.

6.4.2 Maintain infrastructure located within stream corridors in accordance with Best Management Practices that minimize water quality impacts, and pursue design modifications or alternative siting options for when significant alterations are undertaken.

6.4.3 Encourage no net loss of remaining wetlands acreage, functions and values within the City and urban growth area, and the creation of wetlands where feasible

6.4.4 Restore previously disturbed wetland and stream buffers where feasible, and maintain restored buffers to limit the reintroduction of invasive species.

6.4.5 Ensure wetland regulation and mitigation implementation is flexible enough to allow for protection of systems or corridors of connected wetlands, encourage incentives such as property tax reductions, conservation easements and other techniques to preserve wetlands.

A tradeoff of small, isolated wetlands in exchange for a larger connected system can achieve greater resource protection, reducing wetland habitat fragmentation.

5. GEOLOGICAL AND FLOOD HAZARD AREAS

Objective:

6.5 Public health and property damage risk associated with flood and geologic hazard areas have been reduced, while preventing irreparable harm to regionally significant ecological resources.

Additional flooding policies are in Policy Plan Section 7.3 *Floodplain Land Use* and Policy 4.1.2.

Policies:

6.5.1 Meet, and attempt to exceed, the federal minimum standards of the National Flood Insurance Program, and strictly enforce Flood Hazard Regulations that meet and exceed the minimum requirements established by FEMA and the Department of Ecology.

6.5.2 Require the use of Best Management Practices to reduce accelerated erosion and sedimentation due to construction and construction-related activities.

6.5.3 Limit the scale and density of development in areas with severe geologic hazard potential, requiring development to minimize grading and restore native vegetation to the greatest extent possible.

6.5.4 Where possible, seek to restore natural vegetative cover and natural drainage features on degraded sites which contribute to accelerated erosion and sedimentation.

LAND USE

The Land Use Element is a long range guide to the physical development of the City and its urban growth area. It translates the City vision into a physical plan describing where and how to develop, redevelop and preserve the City through general land use designations. The Land Use element is fundamental to almost all Comprehensive Plan goals, including jobs-housing balance, economic vitality, community character and environmental quality.

Goal 7: ***A balanced mix and arrangement of land-uses that advances the City's vision and goals for economic development, sustainability, community distinctiveness and active, healthy living.***

1. URBAN GROWTH AREA

Objective:

7.1 **Snoqualmie's urban growth area is sufficiently sized and configured to accommodate projected growth, and maintains long term compatibility between a range of land uses.**

Policies:

7.1.1 Maintain a sufficient supply of suitable land in the applicable land use designations within the City and urban growth area to ensure residential development capacity meets or exceeds the City's twenty-year housing projections.

For additional policies on the urban growth area see Policy Plan Section 8 *Annexation Proposals* and Section 9 *Annexation Implementation Plans*.

7.1.2 Regularly evaluate the supply and suitability of vacant and re-developable land in the City's Urban Growth Area for capacity to accommodate the full range of urban land uses needed to support projected growth in the City and surrounding rural area, including medical, governmental, institutional, commercial, service, retail and other non-residential uses as appropriate.

7.1.3 Assess the adequacy of the designated Urban Growth Area for non-residential uses through policies addressing topics including but not limited to: community vision for a self-contained community meeting most resident needs locally; a diverse tax base not excessively dependent on property tax revenue; the ability to provide public services at adopted levels of service; and the impact of sales taxes lost to other communities due to the lack of an adequate land base.

7.1.4 Consider accessibility to major transportation corridors in determining the location of proposed additions to the Urban Growth Area, or the feasibility of providing such access through new publicly or privately constructed transportation facilities.

7.1.5 Present docket items for the King County Comprehensive Plan update cycles addressing Urban Growth Area adjustments based on the existing designated Urban Growth Area capacity to accommodate the full range of urban uses needed to serve the community, in accordance with the City Comprehensive Plan.

2. BALANCED, HEALTHY DEVELOPMENT PATTERN

Objective:

7.2 **A generally compact development pattern of physically connected, distinct, complete neighborhoods that provide for a balanced mix of land uses essential to the daily life of Snoqualmie citizens, employees and surrounding rural area residents.**

Policies:

7.2.1 Zone to allow and encourage mixed-use areas that integrate residential, commercial, office and public uses so that housing, jobs, daily needs and other activities are within easy walking distance of each-other.

7.2.2 Direct development of higher-density housing to areas in close proximity to shops, public facilities and transit stops to help create place and identity, reduce commuting expenses, reduce greenhouse gas emissions and encourage physical activity.

7.2.3 Encourage land assembly allowing for feasible and attractive housing or mixed housing/commercial developments, and facilitate matching compatible owners that can work jointly to consolidate and sell or develop such land.

7.2.4 Maintain a town and neighborhood center focus for the Historic Snoqualmie and Snoqualmie Ridge neighborhoods that combines commercial, civic, cultural, residential and recreational uses.

7.2.5 Ensure land use and zoning changes do not result in significant adverse impacts to adjacent properties and require appropriate landscape buffers or mitigation to minimize the potential for incompatibility between existing and proposed uses.

7.2.6 Limit the siting and operation of adult entertainment businesses to the maximum degree constitutionally permissible to ensure such uses have a minimal impact on schools, churches, parks, public buildings, residential districts, and businesses.

7.2.7 Provide an ample supply of specialized open space in the form of squares, greens and parks whose frequent use is encouraged through placement and design.

7.2.8 Restrict the allowance of drive-through and formula fast food restaurants in retail business districts in close proximity to schools.

7.2.9 Encourage site design and parking standards that support other Comprehensive Plan objectives, such as impervious surface reductions, increased landscaping, better transit linkages and greater pedestrian and bicycle orientation.

7.2.10 Once initial development under an approved Mixed Use Final Plan is complete, revise Mixed Use zoning to district classifications consistent with the existing use, to regulate future use and development.

3. FLOODPLAIN LAND USE

Additional flooding policies are in Policy Plan Section *6.5 Frequently Flooded Areas* and Policy 4.1.2.

Objective:

7.3 Development and conservation within the 100-year floodplain is managed to protect existing and new development from flood hazards and to promote enjoyment of the natural and scenic character of the Snoqualmie River shoreline.

Policies:

7.3.1 Limit creation of new single family residential lots in the floodplain to low density where roads and services are adjacent, but allow for small lot infill and redevelopment with attached townhomes and residential units above commercial uses in the floodplain where such uses can be served by alleys and are within walking distance of the historic downtown commercial core.

7.3.2 Encourage a range of housing options and settings by allowing for creation of new lots in the floodplain through subdivisions with various low density lot sizes as appropriate, depending on existing infrastructure, development pattern and proximity to the downtown core.

7.3.3 Help protect development from flood hazards through residential lot coverage standards and impervious surface standards for different land use designations.

7.3.4 Use the Floodway Overlay District (SMC 17.40) for residentially-zoned districts within the 100-year floodway to provide opportunity for commercial uses compatible in scale, character and impacts to existing single-family uses.

Example critical facilities include hospitals, police, fire, emergency response, and installations which produce, use or store hazardous materials or hazardous waste.

7.3.5 Work with the King County Flood Control District to target high risk, chronically affected and repetitive loss riverfront properties within the floodway for eventual acquisition.

7.3.6 Do not permit the construction of critical facilities or heavy industrial uses within the floodplain unless there is no feasible alternative. Require critical facilities permitted within the floodplain to be elevated or floodproofed consistent with FEMA technical guidance.

7.3.7 Continue to participate in the FEMA Flood Insurance Program and Community Rating System, and implement measures to improve the City's flood insurance rating to benefit floodplain property owners.

7.3.8 Require the first floor of new residential construction and construction involving substantial improvements to existing residential structures to be elevated to at least three feet above the base flood elevation.

4. RESIDENTIAL LAND USE

Objective:

7.4 High quality residential areas that provide dwelling units of various type, density, and costs to meet the needs and interests of a diverse population.

For additional residential policies see Element 4 Housing.

Policies:

7.4.1 Maintain land use designations and zoning to allow and encourage a spectrum of housing types and price ranges that match the jobs in the City and make it possible for people to live and work in Snoqualmie.

7.4.2 Define residential density according to Table 1.1, and maintain zoning that promotes new residential subdivisions containing an integrated mix of lot sizes to promote housing diversity and avoid streetscape monotony.

7.4.3 Limit the height and scale of multifamily buildings to three stories, but consider additional height for special needs or affordable housing, where viewshed impacts can be mitigated.

7.4.4 Use multiple family housing as a transition between uses so that higher density apartment and townhouse projects are located closer to commercial and industrial land uses, and lower density duplex, triplex, garden apartments and townhouses are located closer to single family areas.

7.4.5 Provide for residential streets that maintain property values and encourage walking by supporting pedestrian safety and comfort, through standards that require on-street parking and sidewalks separated by planter strips with street trees.

7.4.6 Allow day care homes in all residential zones and allow day care centers in single family zones through the conditional use process, subject to state licensing and other requirements.

Day care homes house up to 12 children in the provider's home; day care centers accommodate more than 12 children outside of the provider's home.

Table 1.1
RESIDENTIAL DENSITY DEFINITIONS

Residential Density Categories	Housing Type & Dwelling Units per Acre
High Density Residential	Multi-family, 12 - 24 DUs per acre.
Medium Density Residential	Single- and Multi-family, 6 to 12 DUs per acre.
Low Density Residential	Single family, up to 5 DUs per acre.

5. COMMERCIAL AND INDUSTRIAL LAND USE

Objective:

7.5 **A local economy that meets our citizens' everyday commercial needs, supports a vibrant tourism industry, provides living-wage jobs, enhances community distinctiveness, and maintains a sufficient and sustainable tax base for the City.**

Policies:

7.5.1 Provide sufficient areas with appropriate zoning to provide the full continuum of goods and services needed to serve the local population.

7.5.2 Concentrate retail uses in the historic downtown and the Snoqualmie Ridge neighborhood center, while also allowing for service, hospitality and office uses.

7.5.3 Allow and encourage neighborhood scale retail and service business uses within large-scale master-planned residential and mixed-use developments.

7.5.4 Require industrial development be designed to minimize environmental impacts, complement viewscapes, retain significant trees, and buffer impact-generating activities from other less intense uses.

7.5.5 Locate commercial areas along major arterials to ensure adequate visibility and convenient access, but prohibit individual driveway access for separate commercial uses along SR 202 and the Snoqualmie Parkway.

7.5.6 Support the transformation of underutilized lands such as brownfields and greyfields to viable mixed-use or commercial/industrial employment areas as appropriate.

Brownfields are abandoned, idled, or underused properties where redevelopment is complicated by the presence or *potential presence* of environmental contamination. Development requires environmental assessment, and foregoing cleanup present potential liability issues. However, regulation, rising transportation costs, and escalating real estate prices are making brownfield properties a more attractive option.

Greyfields are underdeveloped or idling locations, often referring to parking lots, declining shopping centers, old motels, decaying industrial districts, and other low-intensity commercial land uses along arterial strips.

For more information please see www.mrsc.org/subjects/environment/brownfields.aspx#Intro

6. INSTITUTIONAL & UTILITIES LAND USE

Objective:

7.6 **Needed institutional and utility land uses are accommodated within the community with minimal land use conflicts.**

Essential Public Facilities (EPFs) are a distinct facility type. See Capital Facilities Element Section 9.G. *GMA Essential Public Facilities*, Appendix 9-1 *Definitions: Capital Facilities & Utilities*, and Policies 9.2.2, 9.2.3 & 9.3.3 for more information.

Policies:

7.6.1 Allow public and private elementary, middle, and high schools as a conditional use in all zoning districts, except the Parks and Open Space and Utility Park districts.

7.6.2 Allow for institutional uses in Mixed Use and Planned Commercial/Industrial districts, and specify certain institutional uses, such as museums, interpretive centers, and community recreation centers as appropriate for designated Parks and Open Space areas.

7.6.3 Allow the siting of Essential Public Facilities through the issuance of an Unclassified Use Permit, and ensure that they appropriately mitigate potential impacts on adjoining properties and neighborhoods.

7.6.4 Allow power generation facilities and accessory uses, sewage and water treatment plants, other public or private utilities and parks and open space uses in areas designated Utility Park, as well as visitor-related commercial services as a conditional use.

7.6.5 Ensure that the existing rural, undeveloped character of the Snoqualmie Falls viewshed is adequately protected with any future development in the Puget Western - Snoqualmie Falls Utility Park area.

7.6.6 Require major communication utility development to provide setbacks, screening and landscaping to minimize visual impacts on adjacent properties, and provide an appearance as compatible as possible with the uses permitted in the zone.

Provisions on protecting groundwater used for public water, and critical areas, are located in Element 6, Environment (addresses RCW 36.70A.070 (1); RCW 36.70A.030 (5) & 36.70A.172).

7. ANNEXATION PROPOSALS

Objective:

7.7 Annexations support phasing of growth to meet 20-year targets and further the goals, objectives and policies of the City's Comprehensive Plan.

Policies:

7.7.1 Require annexation proposals to be consistent with the Comprehensive Plan, and to meet all of the following criteria:

a. The annexation will logically extend City boundaries for more unified area-wide planning, or make existing City boundaries more uniform by eliminating irregular boundary lines and unincorporated islands of land;

b. Adequate municipal services exist to serve the area, or a reasonable service plan, including funding, is in place;

c. The proposed annexation boundaries make providing public services geographically and economically feasible;

d. The proposal includes a proposed land use plan and transportation study;

e. The proposal includes a legally binding commitment to provide as part of development, or to fairly and equitably share on a pro-rata basis, the cost of future public and institutional needs such as: parks and open space, schools, fire protection services, roads, utilities and public facilities.

7.7.2 When in the public interest, consider annexation proposals when required for municipal facilities or public utilities, they will provide municipal services necessary for public health and safety, or to include property in common ownership that is partially within corporate limits and annexation is desired by the owner.

7.7.3 Consider annexation proposals when it would benefit the City, such as allowing for development of employment uses providing family wage jobs; improving circulation through new road connections; providing for increased housing choices; or offering unique park or open space opportunities.

7.7.4 Prior to annexation, require the preparation and approval by City Council of an Annexation Implementation Plan for all, or an appropriate portion, of the applicable planning subarea to serve as a general land use and policy guide for annexation area development.

7.7.5 Prior to annexation, require the preparation of a pre-annexation zoning regulation, pursuant to the provisions of RCW 35A.14.330 and 340 that is consistent with the comprehensive plan land use designation for the property.

7.7.6 Ensure annexation of individual properties conform substantially to the policies of the approved annexation implementation plan, and the applicable policies of the comprehensive plan.

8. ANNEXATION IMPLEMENTATION PLANS

Objective:

7.8 Sub-area planning prior to annexation effectively manages growth and development within the urban growth area, and assures consistency with comprehensive plan goals, objectives and policies.

Policies:

7.8.1 Require an annexation implementation plan to portray, at a minimum, proposed land uses; primary road network and connections; and primary utility systems, including locations for sewer mains and lift stations, major storm water facilities, water mains, pump stations and reservoirs.

7.8.2 Require the annexation implementation plan include a review of the City's current Comprehensive Water, Sanitary Sewer, and Storm Drainage Plans, and include provision for any required updates to those plans.

7.8.3 Allow that annexation implementation plans may be amended in the review process of more specific final plans based on environmental review, in response to changes over time in housing and employment needs, neighboring land uses and evolving City and King County policies.

7.8.4 Require all development approvals to conform substantially to the annexation implementation plan. An approved mixed use final plan will be the controlling document for subsequent property development approvals in the Mixed Use Zone.

7.8.5 Where the area proposed for annexation abuts designated King County rural or resource areas, require the land use plan to include buffers to adjacent rural and resource areas from more intensive land uses.

7.8.6 When the proposed annexation area contains sensitive areas, require the annexation implementation plan to include a study of all applicable sensitive areas.

7.8.7 Consider granting exceptions to annexation implementation plan requirements for annexations of a public health and safety nature, or providing facilities to serve residents of the City and its urban growth area.

7.8.8 When a proposed annexation is not accompanied by a development proposal allowing for meaningful consideration of required Annexation Implementation Plan topics, consider deferring Annexation Implementation Plan preparation until after annexation, provided that the terms associated with such deferral are established in a pre-annexation agreement approved by City Council and executed by all affected parties.

7.8.9 Require Mill, Snoqualmie Hills, and Snoqualmie Falls Planning Area annexation implementation plans to implement the requirements of specific Planning Areas as articulated in Table 1.3.

TRANSPORTATION

This Element guides transportation system improvements to meet Snoqualmie's existing and future travel needs, helping the City develop a comprehensive, multi-modal transportation system to serve planning areas, while supporting the broader long-range goals of community development.

Goal 8: ***A local transportation system that provides for a full spectrum of safe, efficient and convenient travel within and through the City and that supports the City's vision for a unified, prosperous and complete community.***

1. LAND USE AND TRANSPORTATION COORDINATION

Objective:

8.1 A multi-modal transportation system that supports the City's planned land use pattern.

Policies:

8.1.1 Plan and preserve transportation system routes and capacity to support planned growth based on projected travel demands.

8.1.2 Require infrastructure to be aesthetically pleasing and in context with the existing or desired community character of individual City areas, particularly in regard to streets, which are the largest segment of the public realm.

8.1.3 Ensure transportation improvements or strategies accommodate development impacts concurrent with that development, and prohibit development if it causes the levels of service for transportation facilities to decline below adopted standards, as required by the GMA.

8.1.4 Connect streets, sidewalks, trails, bicycle facilities, and transit routes and facilities whenever feasible with existing rights of way to form an integrated, balanced and convenient multi-modal system.

8.1.5 Maintain a transportation capital improvement plan that balances and coordinates system improvements for all modes and supports economic development.

8.1.6 Ensure multiple connections between new and historic parts of the City are planned and required in conjunction with future annexation and development of the Snoqualmie Hills Urban Growth Area.

8.1.7 Pursue an additional southerly exit from the Snoqualmie Hills Planning area to North Bend Way and Interstate-90.

2. INTERGOVERNMENTAL TRANSPORTATION PLANNING

Objective:

8.2 The City's transportation element is coordinated and consistent with the State, King County and North Bend transportation plans.

Policies:

8.2.1 Coordinate with the Washington State Department of Transportation regarding planning for SR202/Railroad Avenue within the City and for the I-90-SR-18/Snoqualmie Parkway interchange.

8.2.2 Coordinate with King County and North Bend for consistent local planning on roadways and trail connections, and where traffic generated outside Snoqualmie could impact City levels of service and improvements.

8.2.3 Participate in regional transportation planning processes to assure that City interests are reflected in regional transportation plans.

3. STREET SYSTEM

Objective:

8.3 The street system provides for safe, pleasant and efficient vehicle, pedestrian, bicycle and transit travel within the City.

Policies:

8.3.1 Classify streets by function as shown in Table 8.13 of the Transportation Element, so that needed traffic capacity may be preserved and planned street improvements will be consistent with those functions.

8.3.2 Designate Principal Arterials as truck routes, and ensure those roadways are constructed with appropriate pavement materials and adequate geometry for heavy vehicle traffic.

8.3.3 For vehicular transportation planning and development review, use level of service (LOS) measures to evaluate system performance and needs, and apply a peak-hour LOS D standard for arterial intersections, with LOS E at side-street stop locations acceptable unless a signal is warranted or required by the City Traffic Engineer.

8.3.4 For street development and redevelopment projects, plan for complete streets, which meet the needs of pedestrian, bicycle and transit users within the street right of way wherever feasible, consistent with street classification and projected travel volumes.

8.3.5 Consult the recommendations of the neighborhood profiles in Community Character Element 3, and the 2006 Downtown Master Plan for transportation project planning and implementation.

8.3.6 Annually adopt a Six-Year Transportation Improvement Plan that implements the Comprehensive Plan.

4. BICYCLE AND PEDESTRIAN SYSTEM

Other policies related to bicycle & pedestrian planning include 3.4.3, 7.2.1, 7.2.9, 7.3.1, 7.4.5, 8.1.4, 8.3.4 & 8.6.3.

Objective:

8.4 A system of trails and corridors that encourages and facilitates bicycling and walking for commuting, local travel trips and healthy physical activity.

Policies:

8.4.1 Provide, and require new development to provide pedestrian and bicycle pathways that safely connect residential neighborhoods, commercial areas, schools, transit routes, parks, regional trails and other destinations within the City.

8.4.2 Use the 2012 Pedestrian and Bicycle Network Recommendations Report, and subsequent updated Plans and reports, to prioritize pedestrian and bicycle improvements.

8.4.3 Provide multi-use trails separated from vehicle lanes on principal and minor arterial corridors, and shared bicycle facilities on select collector arterials.

8.4.4 Work with the School District to identify needed pedestrian facility improvements on school walk routes to increase pedestrian safety.

8.4.5 Provide sufficient bicycle parking in the Historic Downtown, Snoqualmie Ridge Neighborhood Center and public parks to meet demand and encourage bicycle travel.

8.4.6 Require large office and industrial development to provide facilities to support employee bicycle commuting.

5. TRAVEL DEMAND MANAGEMENT AND ENVIRONMENTAL STEWARDSHIP

Objective:

8.5 Sufficient and convenient opportunities exist to use transit, carpools, vanpools and electric vehicles, supporting improved air quality, reduced vehicular greenhouse gas emissions, and alternative options to single-occupant vehicle travel.

Policies:

8.5.1 Work with Metro and other organizations to improve service and increase transit ridership within the City and between Snoqualmie, regional destinations and adjacent communities.

See Policy Plan Section 8.4 *Bicycle and Pedestrian System* for additional policies on Transportation Demand Management.

8.5.2 Work with and support the Snoqualmie Valley School District to develop and implement demand management strategies to reduce traffic and parking problems around schools.

8.5.3 Provide opportunities for electric vehicle recharge and alternate fuel refueling stations to encourage and promote the use of electric and alternatively-fueled vehicles.

8.5.4 Support public awareness education on the social and environmental impacts of travel choices to encourage the use of travel alternatives to single-occupancy travel.

8.5.5 Follow Evergreen Fleets policies and actively participate in Clean Cities Coalition and other leading regional green vehicle groups.

8.5.6 Actively pursue a park and ride near the Interstate-90 interchange, or at some other suitable location in the City, to facilitate use of mass transit and carpooling.

8.5.7 To improve air quality and reduce greenhouse gas emissions, employ and encourage strategies to reduce vehicle use, promote single occupant vehicle alternatives, and improve the transportation system's operating efficiency.

8.5.8 Encourage voluntary compliance with the Commute Trip Reduction Efficiency Act for those that are not otherwise subject to it.

8.5.9 Encourage the use of single occupant vehicle alternatives, and more energy efficient automobiles, by allowing parking requirement reductions for green vehicles, car-sharing, carpool parking, vanpools, transit passes and extra bicycle employee parking, where supported by a parking demand management program.

Commute Trip Reduction

The Commute Trip Reduction (CTR) Program is a state-wide, employer-based, transportation demand management program oriented towards improving transportation efficiency, air quality and energy conservation. The commute trip reduction law was modified in 2006 to apply to employers, in state urban growth areas with the greatest levels of traffic congestion, with 100 or more full time employees who work at a single worksite and begin work between 6 and 9 a.m. on two or more weekdays for at least 12 continuous months. The CTR requires that local jurisdictions in some counties adopt a CTR ordinance to implement CTR goals and requirements. Although the City of Snoqualmie is not required to comply with the law as an employer, some in-city employers are still affected. To support demands on the local transportation system, the City is considering programs to assist with voluntary compliance. *For more information please see www.mrsc.org/subjects/transpo/tdm.aspx.*

6. PLANNING, DESIGN AND MAINTENANCE

Objective:

8.6 **The City's transportation system supports local prosperity and community distinctiveness and enhances the public realm by providing pleasant and convenient access to homes, businesses, schools and other key destinations in the City.**

Policies:

8.6.1 Ensure consistent and equitable system improvements throughout the City, we employ street design standards guiding driveway access, sidewalks, lighting, on-street parking, landscaping, street trees, and the widths of lanes, right-of-ways, planting strips and medians.

See Policy 7.4.6 and the *2012 Open Space, Parks & Recreation Plan* for additional policies on street trees.

8.6.2 Limit the use of cul-de-sacs and dead-end streets in new subdivisions and street improvement proposals wherever feasible to optimize circulation options within and between neighborhoods, and to assist with long-term emergency management needs.

8.6.3 Limit driveway access on principal, minor and collector arterials to minimize curb cuts, maximize vehicle carrying capacity, reduce potential vehicle conflicts, and enhance pedestrian safety and comfort.

8.6.4 Maintain and improve alley rights-of-way for public use, require vehicle access by alleys where available, and prevent encroachment from adjacent private property onto public property.

8.6.5 Maintain streets in accordance with our Pavement Management Plan, which systematically and objectively prioritizes projects, and balance the maintenance of newer streets with the needed reconstruction of failed streets.

8.6.6 Employ Best Management Practices (BMPs) for storm water management, including low-impact development (LID) strategies, effective street cleaning, and other measures to alleviate major pollution sources from roadway uses.

See Environment Element 6 for additional policies on water quality.

8.6.7 Support local transit partnerships for better intravalley connections and to support tourism within Snoqualmie.

CAPITAL FACILITIES & UTILITIES

A Capital Facilities and Utilities Element is used to identify essential public capital facilities along with private infrastructure facilities, establish acceptable levels of service, and ensure that these facilities and services are provided in a timely manner to support existing and future residents. It is the mechanism the City can use to coordinate its physical and fiscal planning. Utility policies address the quality, reliability and safety of services provided; environmental impacts; aesthetics; and facility construction.

Goal 9: The City provides, and encourages other public and private entities to provide, high quality public services and infrastructure facilities to Snoqualmie's current and future residents.

1. CITY CAPITAL FACILITIES

Objective:

9.1 Municipal public facilities are provided in a cost effective manner to support growth and meet community service expectations.

Policies:

9.1.1 Prioritize capital facility improvements per comprehensive plan policy guidance and Implementation Element priorities.

9.1.2 Require the provision of essential capital facilities and services to meet adopted level of service standards and accommodate growth concurrent with development.

9.1.3 Require future development to bear a fair share of costs for planned capital improvements, concurrent with development, to achieve and maintain the adopted level of service.

9.1.4 Apply for grants to fund capital improvements whenever feasible, and ensure that funds are available for the City's share of planned improvements.

9.1.5 Manage City debt in a way that ensures effective use for capital facilities while preserving at least part of non-voted general obligation debt for emergencies.

9.1.6 Allocate City sewer and water connection fees primarily for capital improvements related to facility expansion.

9.1.7 Size essential capital facilities to meet the long-term demands of the community, and when feasible, phase facility development to match capital investments with actual community needs.

9.1.8 To the extent possible, match one-time General Fund revenues such as sales tax and B&O tax on construction with capital expenditure needs.

9.1.9 Ensure parks facility users are paying a reasonable share of the costs of operating and maintenance expenses through reasonable fees and charges assessment.

2. OTHER PUBLIC AGENCY CAPITAL FACILITIES

Objective:

9.2 The City cooperates with other agencies that provide public services to help them accomplish their capital improvement objectives.

Policies:

9.2.1 Annually adopt by reference the Snoqualmie Valley School District Six-Year Capital Facility Plan and update school impact fees on new residential units to ensure that school facilities will be provided to meet projected growth.

9.2.2 Participate in inter-jurisdictional processes to prioritize, coordinate, plan and site capital facilities of a countywide or statewide nature.

9.2.3 If the City is selected as a state or regional capital facility site, or is otherwise impacted by such a facility, ensure appropriate mitigation for local impacts is provided as part of the facility's development and operation.

Inter-jurisdictional Essential Public Facilities (EPFs) are a distinct facility type. See Policy 7.6.3, Capital Facilities Element Section 9.G *GMA Essential Public Facilities*, and Appendix 9-1 *Definitions: Capital Facilities & Utilities* for more information.

3. UTILITIES

Objective:

9.3 Adequate and reliable utility facilities and services are provided to meet the demands of existing customers and future public and private development.

Policies:

9.3.1 Plan for the general locations for major or "trunk" utility facility locations and consider designating routes and locations suitable for facility improvements, subject to development regulations.

An example electric trunk facility would be suitable for 55,000 or more volts.

9.3.2 Coordinate with other jurisdictions to implement multi-jurisdictional facility improvements, and attempt to coordinate land use procedures for consistent decision requirements and timing.

9.3.3 Ensure that utility improvements minimize neighborhood impact, are environmentally sensitive, aesthetically pleasing, safe and provided in a timely manner to serve planned growth.

9.3.4 Require the undergrounding of all new electrical and communication lines and, to the maximum extent feasible, the undergrounding of existing lines during road and utility improvements, and the reasonable screening and/or architectural compatibility of all new above-ground facilities.

9.3.5 Encourage the joint use of utility corridors for agriculture or passive recreation uses, provided that such uses are consistent with prudent legal and utility practice.

9.3.6 Require the joint use or co-location of utility trenches, conduits and poles to minimize poles and aboveground structures, and to provide for the expansion, maintenance and upgrading facilities with the least amount of service disruption.

The primary jurisdiction to determine whether Non-City-Managed Utilities are meeting their public service obligations rests with the Washington Utilities and Transportation Commission (WUTC).

4. LEVEL OF SERVICE

Objective:

9.4 Adequate and reliable capital facilities and services are provided to meet the demands of existing customers and future public and private development.

Policies:

9.4.1. Maintain level of service standards that can be achieved through probable funding sources, and reevaluate level of service standards or the land use plan if probable funding falls short of meeting identified needs.

9.4.2. The City of Snoqualmie establishes the level of service standards and staffing guidelines in Table 1.2 to guide the future delivery of community services and facilities, and to provide a measure to evaluate the adequacy of actual services.

Table 1.2
STAFFING GUIDELINES AND INFRASTRUCTURE & FACILITIES LOS

Type of Capital Facility or Service	Staffing Level of Service Guidelines
Fire	• Staffing and equipment sufficient to maintain a minimum of 3 fire-suppression trained individuals on-duty at all times within the City. • Staffing and equipment sufficient to help meet Fire Department performance objectives per RCW 35.103 as articulated in the Capital Facilities Element.
Police	• Staffing and equipment sufficient to a minimum of maintain 2 officers on-duty at all times within the City. • Staffing and equipment sufficient to respond to priority calls within five minutes 90 percent of the time.
Parks	• An average of 1 maintenance staff per every 13 park acres.
Public Works	• Stormwater: Staffing sufficient to maintain facilities according to NPDES II permit requirements. • Water: Staffing sufficient to maintain facilities according to Department of Health requirements. • Wastewater: Staffing sufficient to maintain facilities according to Department of Ecology requirements.
General Administration	Staffing levels sufficient to respond to state-mandated requirements, and to provide efficient, effective governance to meet reasonable levels of demand.

Type of Capital Facility or Service	Level of Service: Infrastructure & Facilities
Park Facilities	The adopted 2012 Open Space, Parks and Recreation Plan park facility Levels of Service by classification and service area.
Transportation	Levels of service as established by the Transportation Element.
Stormwater	Stormwater and surface water facilities: • Performing at a level that permits adequate drainage for the appropriate rainfall duration and intensity to ensure the safety, welfare and convenience of people in the developed areas. • Performing at a level of stormwater treatment that adequately protects surface and groundwater quality and aquatic life. • A stormwater system that is maintained per NPDES permit requirements.
Water	A flow volume that meets instantaneous demand together with projected fire flows.
Wastewater	A level that allows collection of peak wastewater discharge plus infiltration and inflow.
General Government Facilities	Facilities that are properly sized, designed for their intended purpose, and evolve to meet future demands, such as population growth, expanded infrastructure, and changes in regulatory requirements.

Type of Capital Facility or Service	Level of Service: Non-City Managed Capital Facilities and Services
Libraries	The City neither sets nor controls the level of service standards for area Library. The King County Library District provides and maintains facilities, collections, services to meet community needs and interests.
Schools	The City neither sets nor controls the level of service standards for area schools. The Snoqualmie Valley School District is charged with ensuring there is adequate facility space and equipment to accommodate existing and projected student populations. The City coordinates land use planning with the school district to ensure there is adequate capacity in place or planned.

Table 1.3
PLANNING AREA REQUIREMENTS FOR ANNEXATION IMPLEMENTATION PLANS

Planning Area	Annexation Implementation Plans Must Address the Following
Mill	a. Flood hazard considerations for the sub-areas detailed in the King County Flood Hazard Reduction Plan and the City's Hazard Mitigation Plan, including an independent survey to compare the initial topographic elevations used as the community's base flood elevation in the City's 1984 Flood Insurance Study to the current floodplain elevations created by the mill site berm and sort-yard fill; b. Preservation of the flood storage and conveyance functions of the floodway; c. Protection and preservation of unique natural features and viewsheds of the sub-area; d. Assessment of toxic contamination and remaining clean-up necessary to support proposed land uses, prevent further environmental impacts and protect public health as may be required by applicable State or Federal regulations; e. Visual and aural buffers to any future residential or open space uses from the gravel quarry site and sewage treatment plant; f. A comprehensive transportation analysis to assess City street and intersection impacts, and identify necessary upgrades to these facilities to serve new uses and development. Ensure upgrading of transportation facilities does not result in the use of Meadowbrook Way as a truck route; g. A plan for, and commitment to provide, trail right-of-way to connect local and regional trails as identified in the comprehensive plan transportation element, Snoqualmie Open Spaces, Parks and Recreation Plan and the King County regional trails plan; and h. Assurances that future land uses and development activities will protect the City's north well field area from potential contamination.
Snoqualmie Hills (East and West)	a. Assure that land uses are compatible with established residential neighborhoods; b. Provide for the maintenance of steep slopes through retention of native growth and prohibition of urban development on those slopes; c. Address the cost and timing of bringing existing development up to City standards for water, sewer and storm water services; d. Adequately plan and provide for construction within the annexation area of the collector road connections to the Snoqualmie Parkway and the historic Snoqualmie area depicted in the Transportation Element; and e. Address and provide for protection of the scenic resources and viewsheds of this planning area, such as the I-90 and West North Bend corridors, which serve as both the Mountains to Sound Greenway corridor and as a gateway to the City.
Snoqualmie Falls	a. Assure that development within the Snoqualmie Falls scenic viewshed is adequately buffered; and b. Include a plan for and commitment to provide trail right-of-way to connect local and regional trails as identified in the City comprehensive plan and the King County regional trails plan.

Implementation Element
Table of Contents

LIST OF TABLES

A. INTRODUCTION

The *Implementation Element* consists of City Council Short Term Goals and Objectives; project and program initiatives to be implemented over the course of six years; and the Snoqualmie Six-Year Capital Improvements Plan (CIP). The Council Goals, Action Plan and CIP are guided by the long-term goals, objectives, policies and land use plan set forth in the Snoqualmie 2032 Comprehensive Plan. Figure 2.1 illustrates the relationship between the Comprehensive Plan and the day to day practice of our city governance and operations.

Goal 2: ***A comprehensive plan and development regulations that are kept current, implemented, embody the community vision for the future and meet the requirements of the State Growth Management Act.***

This element will be updated annually along with the CIP and Council Goals.

"I never worry about action, but only inaction."
–Winston Churchill

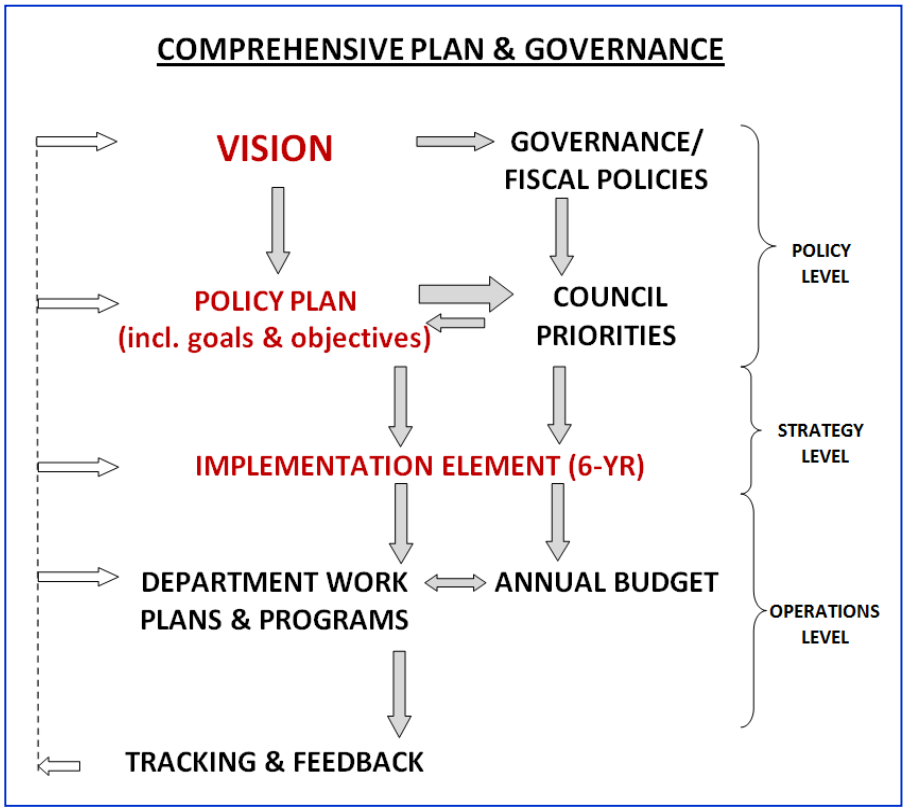


Figure 2.1 *Comprehensive Plan Relationship with Government Practice; modeled after City of Ontario Plan*

B. LAND USE

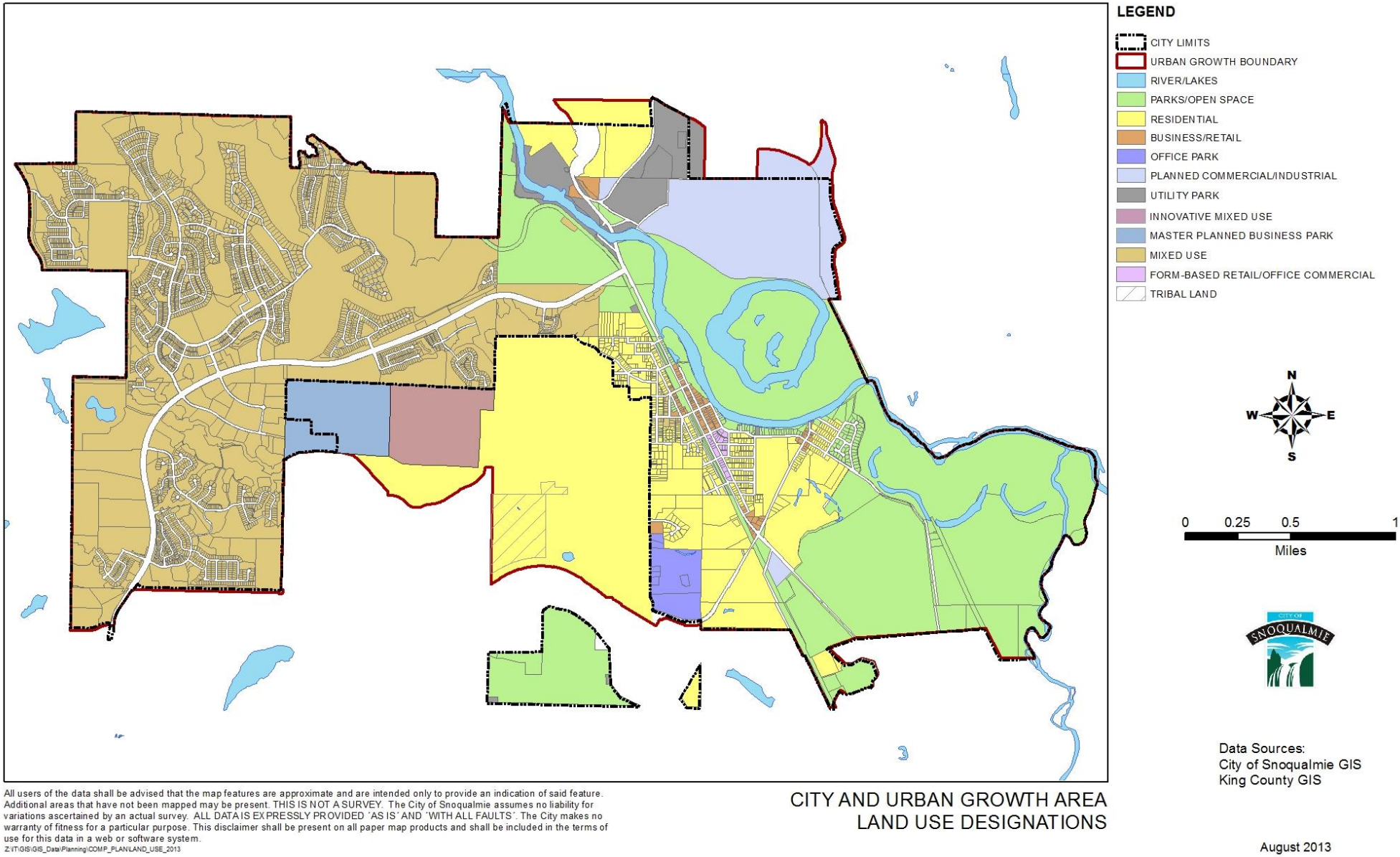


Figure 2.1 Land Use Designations

Table 2.1

C. ACTION PLAN

Action Item	Corresponding Comprehensive Plan Policy or Section	Assigned	Timeline	Council Goals Overlap	Economy	Housing	Character	Environment	Land Use	Transportation	Capital	Parks & Rec.
IMPLEMENTATION												
1. Update City Codes to reflect Policy Changes of the City Comprehensive Plan and other docketed items	2.1.3	Planning Department	2014									
2. Develop criteria to prioritize Capital Facility projects.	2.1.5 & 9.1.1	Planning & Public Works	2014									
3. Develop web application to encourage citizen familiarity and engagement with the Comprehensive Plan.	2.1.6	Planning & IT	2014									
4. Develop & implement a robust civic engagement strategy.	2.1.6	Planning	2015									
ECONOMY												
5. Aggressively pursue and facilitate provision of higher-education facilities and services in the City, including a 2-/4-year public or private college.	3.3.6	City Admin.; EDC; SVCC	2014-2016									
6. Complete a master plan and additional acquisitions for the "Riverwalk" trail, and seek funding for a Phase I Riverwalk construction project in the Downtown core.	3.5.2	Planning; Parks; City Boards & Commissions	2014-2016	CG Econ 1/ EDP 18								
7. Implement City of Snoqualmie 2013 Employment Industry Recruitment Plan recommendations prepared by the Economic Development Council of Seattle/King County.	3.3.1	SVCC (contract); EDC	2014-2015	CG Econ 1/ EDP 1,3								
8. Identify the environmental, recreational, cultural and social attributes and facilities that would aid in attraction of potential businesses and their employees.	3.5.6 & 3.6.3	City Admin., Planning w/ SVCC (contract)	2016									
9. Continue to seek grant funding for an elk pull-out/observation area along SR202 on Meadowbrook Farm.	6.1.3	Planning Department	2015									
10. Encourage and assist Downtown and Ridge Marketplace businesses in using the Main Street 4-Point approach and explore the feasibility of establishing a formal Downtown Main Street organization.	3.4.7	SVCC (contract) Planning Dept.	2014	EDP								
11. Develop and implement interim tourism and retail use strategies for the King Street property in concert with the Downtown merchants.	3.4.9	SVCC (contract) w/ EDC, Planning	2014-2016									

Action Item	Corresponding Comprehensive Plan Policy or Section	Assigned	Timeline	Council Goals Overlap	Economy	Housing	Character	Environment	Land Use	Transportatio	Capital	Parks & Rec.
12. Complete customer profiles for City residents, surrounding rural area residents, employees, and tourists (if possible) to inform City retail districts' target business recruiting mix.	3.3.3 & 3.4.1	Consultant	2016									
13. Develop specific and separate employment industry, retail district, and tourism brands through a consultant or small group process. Build the brands on feasibility rather than public consent. a) Focus branding on unique city assets and the types of businesses targeted for retention and recruitment. b) Work with business park owner and brokers to develop a business park brand to promote both infill and expansion of the business park c) Develop a tourism brand that can also support the overall economic development brand.	3.4.1	Planning w/ EDC, SVCC (contract)	2016	EDP 26								
14. Develop a welcome packet for new and renewing business licenses with links on how to use websites, social media and other technologies for greater exposure and promotion.	3.1.7	Communications w/SVCC	2015									
15. Recruit and secure additional overnight lodging venues within the City.	3.5.1	Admin; SVCC; Plan.	2014-2016									
16. Market the City at the regional, state, national and international level as a destination for specific tourist attractions and experiences, such as Snoqualmie Falls, NW Railway Museum and Conservation Resource Center, Dirtfish, recreational activities, and unique special events.	3.5.7	City Admin; EDC; SVCC	2014-2016	EDP 30								
17. Encourage and assist the City merchants' associations to have a greater presence with visitors at Snoqualmie Falls.	3.4.1	Communications SVCC	2015									
18. Provide additional events to grow tourism and drive visitor traffic, consistent with the tourism brand.	3.5.3	EDC, AC, PB w/merchants & SVCC	*Ongoing*									
19. Work with WSDOT to incorporate freeway signage to direct traffic to the Downtown historic/business district and Snoqualmie Falls via exit 27 as well as exit 25 as a scenic business loop route.	3.1.6	Planning; EDC	2015									
HOUSING												
20. Revise zoning provide for higher density attached housing for residential properties near the downtown core with alley access.	Figure 7.3	Planning	2014									
21. Evaluate the supply and condition of affordable housing in the City every five years to measure the effectiveness of housing policies, regulations and incentives and assist in retention of low-income units as feasible.	4.3.3	Planning	2017									

Action Item	Corresponding Comprehensive Plan Policy or Section	Assigned	Timeline	Council Goals Overlap	Economy	Housing	Character	Environment	Land Use	Transportatio	Capital	Parks & Rec.
COMMUNITY CHARACTER												
22. Install an additional artwork within the City per SAC recommendation.	3.5.3	SAC; Planning	2014	EDP 12								
23. Work with Meadowbrook Neighborhood residents to address concerns on speeding, pests, and litter.	Section 5.E.5	Planning; Police	2015									
24. Work with various stakeholders to help preserve what remains of Swing Rock.	5.1.6	City Admin.; Planning	2014									
25. Work with business owners to improve building facades and storefronts in the Downtown Historic District	5.2.7 & 5.2.8	Planning	*Ongoing*	CG Econ 1/ EDP 14								
ENVIRONMENT												
26. Create NPDES II management system & outreach plan.	6.3.5	Public Works/Planning	2014									
27. Develop programs to redress indentified Kimball Creek water quality, including possibly requiring septics maintenance or encouraging sewer system connection where feasible.	6.3.6	Public Works/Planning	*Ongoing*									
28. Develop an example Low-Impact-Development Road design within the City.	6.3.2	Public Works; Planning	2014									
29. Review & adopt a Snoqualmie Greenhouse Gas (GHG) Inventory, GHG Reduction Targets, and Climate Action Plan that meet or exceed Washington State greenhouse gas reduction targets.	6.2.1	Planning	2014-2015	CG Green 1								
30. Evaluate Floodplain Land Use policies, as directed in the Land Use element.	Section **7.**F	Planning	2017									
LAND USE												
31. Secure additional water rights needed to support development within the mill site and UGA.	3.2.7	City Admin.; Public Works	*Ongoing*									
32. Continue to pursue expansion of the City's urban growth area to include the properties north of I-90 adjacent the Snoqualmie Parkway.	7.1.2 – 7.1.5	City Admin.; Planning	*Ongoing*	CG Econ 3								
33. Work with property owners to complete advance planning and environmental review for economic development within the Mill Planning area.	3.1.4 & 7.8.9	City Admin.; Planning	*Ongoing*	CG Econ 2								

Action Item	Corresponding Comprehensive Plan Policy or Section	Assigned	Timeline	Council Goals Overlap	Economy	Housing	Character	Environment	Land Use	Transportati	Capital	Parks & Rec.
34. Coordinate with property owners to plan for Snoqualmie Hills West Planning Area annexation and development, including Snoqualmie Ridge Business Park expansion. Identify measures the Property Owners/ Developer and the City could take to make available land more easily developed with the targeted sector uses (sub-area planning w/ project level, planned-action SEPA, BSIP with major infrastructure improvements).	3.3.2	Planning	2016-2020									
35. Complete zoning code revisions for a new mixed-use commercial/residential district on Olmstead Avenue between King and River streets.	5.1.4	Planning	2014									
36. Acquire additional land needed to complete the community green space between Maple and Olmstead streets adjacent City Hall, as called for in the Downtown Master Plan.	5.1.4	City Admin.; Planning	2014-2020									
TRANSPORTATION												
37. Update SMC 12.16 Street Design Standards to be consistent with SRII standards and clarify access and driveway requirements.	8.1.2, 8.3.4 & 8.6.1	Public Works; Planning	2015									
38. Continue to seek and implement solutions to address traffic issues associated with the I-90/Highway 18 interchange.	8.2.1	Public Works; Planning	*Ongoing*									
PARKS & RECREATION												
39. Work with King County and Mill site owners for completion the Preston-Snoqualmie and Snoqualmie Valley missing trails links near Snoqualmie Falls, and to complete appropriate connections between these County trails and City trails.	8.1.4	City Admin; Planning; parks	*Ongoing*	EDP 21								
40. Implement trail recommendations of the 2012 Pedestrian and Bicycle Network Recommendations Report.	8.4.2	Public Works; Planning	*Ongoing*	EDP 21								
41. Implement recommendations in the 2014 Snoqualmie Urban Forest Strategic Management Plan.	OSPR Plan 9.B.8.1 & 9.B.8.2	Parks	2014-2020									

Economic Development
Table of Contents

LIST OF TABLES

LIST OF FIGURES

A. INTRODUCTION

A vibrant, local economy is essential to Snoqualmie's long term fiscal and community health and vitality. The City strives to provide a range of employment, retail, service and recreational opportunities for its residents. The City's role in Economic Development is to create, maintain and grow value for its citizens - the residents, property owners and businesses who have invested, or will invest, in Snoqualmie. Value should always be considered in terms of both financial and qualitative returns, including opportunities for business growth, added jobs and increased City revenues, along with quality of life assets such as a healthy and attractive environment, a sense of safety, and local cultural amenities. A strong local economy with a balance of jobs and housing is central to our vision of growing as a "complete community" where one can live, work shop and enjoy life.

Goal 3: A vibrant and thriving small city economy that offers jobs providing salaries that match local housing costs; offers goods and services to meet the needs and wants of our citizens, visitors and employers; generates revenue to support City services; and supports Snoqualmie's distinctive character and quality of life.

Ridge Marketplace, Photo Courtesy of Jim Reitz. Used with Permission.

B. DRIVING FACTORS: ECONOMIC DEVELOPMENT

Economic development involves multiple, coordinated efforts working together holistically to attract investment and entrepreneurs, support business retention and expansion, recruit desired new business, and create jobs in a way that benefits the local economy and the community's quality of life. Existing businesses provide goods and services to the community, support a local employment base, and offer shopping, dining, lodging and recreational activities for both locals and tourists. New businesses provide new jobs and add additional municipal revenues that are then available for reinvestment in either infrastructure or public services. A sufficient supply and appropriate mix of housing is also connected with economic planning, providing homes for those employed in local business and industry, and providing residents who support local retail shops and commercial services. Finally, Snoqualmie has unique attributes that inform economic development, including outstanding natural features that draw tourists and business; attractive, high quality neighborhoods, and its location along I-90 at the I-90 and State Route 18 intersection, both in terms of travel time to the major nearby economic hubs of Seattle and Bellevue as well as SeaTac airport, and Snoqualmie Pass for access to recreation.

Several economic development challenges and opportunities face the City in both the long- and short-term. These topics are described in more detail in the following sections:

- A lack of suitable land for retail development to meet resident demand and support tourism
- Recruiting business and industries that are a good fit for Snoqualmie and improve the jobs-housing balance
- Retention and expansion of existing businesses
- Enhancing tourism as a mainstay of the local economy

C. SUFFICIENT RETAIL LAND SUPPLY

An appropriately-sized retail land supply is necessary to meet the full range of local demand for retail goods and services, support tourism, reduce vehicle trips and greenhouse gas emissions associated with unnecessary travel, provide a stable tax base to support city services, and ensure economic prosperity.

In 2009 under SHB 1825, the State legislature amended the Growth Management Act to require that each city's urban growth area include sufficient area for the broad range of uses needed to serve the projected population. The Final Bill Report noted the following for sizing and planning for development within urban growth areas:

> *"As part of the planning process for UGAs, each city within the county must explicitly identify areas sufficient to accommodate the full range of needs and uses that will accompany projected urban growth. The land uses that must be explicitly considered as part of the planning process include those pertaining to facilities for medical, governmental, institutional, commercial, service, retail and other nonresidential uses, when appropriate under the circumstances faced by the planning jurisdiction."*

One issue for Snoqualmie's business growth is that there is not enough suitable land to meet current or future population needs for retail goods and services. In 2011 CollinsWoerman conducted an *Urban Growth Area (UGA) Analysis* to determine whether the City and its current UGA contains sufficient suitable area for the full range of uses needed to serve the projected 2032 population. The study found that the City currently leaks an estimated 73% of its residents' retail spending to other communities, and that it needs an additional 35.1 retail acres to capture two-thirds of projected city resident spending (the 2/3 ratio was used to account for demand from employees, visitors and surrounding rural area residents, which was not included in the analysis of projected spending). While approximately 9.8 existing acres in the City and its UGA could be suitable for retail conversion, an additional 25.3 acres would still be required to accommodate the projected 2032 demand. The SR-18/I-90 Interchange area was identified as an appropriate location due to sufficient suitable vacant and re-developable land, proximity to major transportation corridors, ability to avoid critical areas, and probable success for retail; however, this area is not currently within the City's UGA. The decision to revise the City's UGA to include this area is made by King County.

Historic Downtown Snoqualmie. Photo Courtesy of Jim Reitz. Used with Permission.

C.1 ECONOMIC DEVELOPMENT PLANS & STUDIES

The *2011 UGA Analysis* is one of many studies detailing economic conditions in the City of Snoqualmie. Regular review of market conditions, either in general or that target specific concerns, helps the City and its representatives to make informed decisions in the deployment of different services and strategies to support economic vitality. Several past reports provided various recommendations, including local business types to recruit in retail centers. Another recent study, the *2013 Final Report and Recruiting Plan* completed by the Economic Development Council of Seattle and King County, also identified different regional industry clusters recommended for the city to consider in recruitment efforts for the Snoqualmie Ridge Business Park and the Mill Site. These studies provide valuable resources to help determine Economic Development foci and activities such as implementing a recruiting plan. As always, vital duties require clear assignments to different departments or partners, so that tasks may be incorporated into annual work plans.

Study Takeaways

Various Economic Development studies have provided information useful for planning and decision-making. The recent *2013 Seattle-King County EDC Recruiting Plan* concluded that employment industry recruitment should focus on:

- Medical device companies
- Environmental engineering
- Outdoor sports & apparel
- Aerospace suppliers
- Information technology

This study is discussed further in Section F. Business Recruitment.

Year	Project	Contributor
2002	*Snoqualmie Retail Development Plan*	E.D. Hovee & Company
2006	*Economic Development, Branding & Marketing Plan*	Destination Development
2006	*Retail Market Analysis*	Economic Research Associates
2006	*Downtown Vision Plan*	Callison Architects
2007	*Retail & Non-Retail Service Mix Snoqualmie Ridge*	Hebert Research Inc.
2010	*Downtown Master Plan*	Beckwith Consulting
2011	*Urban Growth Area Analysis*	CollinsWoerman
2013	*Final Report and Recruiting Plan*	EDC of Seattle and King County

D. TOURISM

Riverwalk

The City is developing a conceptual plan for a Riverwalk, looping from the downtown retail district to the Mill site across the River. The future riverwalk will allow pedestrians and bicyclists to enjoy the Historic Downtown as well as the natural beauty of Snoqualmie.

An important goal for current retail business retention and recruitment is to increase tourism. Approximately 2 million people visit Snoqualmie Falls annually, travelling via Snoqualmie Parkway or SR 202. Another 75,000 visit the Northwest Railway Museum. More recently, travelers come from near and far to attend the Dirtfish Rally Driving School, located on the old Weyerhaeuser Mill site. An increasing number of visitors come to and through the City to enjoy outdoor recreational activities, such as bicycling, hiking, fishing, golf and skiing.

Travel by either SR 202 or Snoqualmie Parkway takes visitors through one of the city's two main retail centers – Downtown Snoqualmie or the Ridge Marketplace, accentuating the need to provide infrastructure improvements, support historic preservation in Downtown, enhance retail district placemaking and wayfinding, and improve business mix through targeted recruitment and retention. One way to help support these objectives is to encourage and support the creation of a non-profit dedicated to using the National Main Street Program's "4-Point Approach" for retail district revitalization, which would also allow businesses tax credits for investments. Established through the National Trust for Historic Preservation, the Main Street Program can be rolled out in any viable retail district. Even without establishment of a non-profit, the "4-Point Approach" principles could be used to improve vitality of Downtown or the Ridge Marketplace retail areas for both tourism and resident shopping and services.

The significant amount of visitation in Snoqualmie also highlights the need to support development of a moderately-priced hotel in the city to accommodate the full range of traveler incomes. As reported by the Salish Lodge and Spa, currently the only hotel in the City, lodging and other tourist-oriented businesses would also benefit from development of additional events, amenities and activities to draw visitors, and encourage longer stays and return visits. A hotel is one of the planned features of the Salish Expansion, though other locations may be suitable; supporting bed and breakfast development is another alternative to increase lodging options within the city.

Another feature that would improve tourism, and which residents repeatedly request, is a "Riverwalk" trail along the Snoqualmie River. The City has been acquiring riverfront properties with multiple funding partners, pursuing multiple objectives to reduce potential flood risks, enhance the natural shoreline environment, and enable the Riverwalk. The City is also coordinating with King County on completing the missing links of the regional Snoqualmie Valley and the Snoqualmie-Preston trails, with links to city trails, creating a local and regional trail hub that would attract hiking and biking enthusiasts.

View of the Snoqualmie River, a unique place-making feature of the City

E. BUSINESS RETENTION

Business retention and expansion (BRE) are crucial to the City's economic health. Retention helps existing businesses increase stability, profitability and customer appeal – and greatly helps with city economic development goals. It is estimated that 65% to 80% percent of new jobs in the country are created through the expansion of existing enterprises,[1] providing a strong foundation for community's employment opportunities while also helping stabilize the tax base.

Main Street 4-Point Approach

The Main Street Approach uses four points in community revitalization, building on downtown assets like unique architecture and locally-owned businesses to catalyze economic growth and community pride.

Economic Restructuring: Strengthen existing economic assets, while diversifying the commercial district, by identifying potential market niches, finding new uses for vacant or underused spaces and improving business practices.

Design - Use appropriate design concepts to enhance a commercial district's attractiveness (buildings, signs, window displays, landscaping), which in turn improves consumer and investor confidence, and overall district vibrancy.

Organization - Bring together the public sector, private groups and individual citizens to provide effective, ongoing management and advocacy for the revitalization of the downtown district.

Promotion - Promote the unique character, business establishments and activities in the downtown in a positive manner through advertising, special events and retail promotions. This helps strengthen community pride, social activity and an area's economic development potential.

The City of Snoqualmie currently maintains an "Affiliate Level" status in the State Main Street Program, providing access to resources and networking with other communities applying the 4-point approach. More advanced status levels require a non-profit organization with a paid full-time Executive Director dedicated solely to downtown revitalization. This is partially because not all points of the Main Street Approach are appropriate for a city government to undertake.

[1] Forman, Maury and James Mooney, "Learning to Lead: A Primer on Economic Development Strategies," Washington State Community, Trade and Economic Development (now Department of Commerce), 2008. www.mrsc.org/govdocs/WACTED-Learn.PDF, pg 94.

A Wisconsin Economic Development Institute report summarized the fundamental components of BRE programs:

> *There are essentially two ways a community can assist its existing firms. The first is to provide direct assistance through management training, workforce development programs, access to capital, and resources for exporting, technology, and government procurement. The second way to assist existing businesses is to deal with external barriers to business growth including overly restrictive regulatory processes, availability of space to expand, transportation and other infrastructure needs, and quality of life amenities in the community. Suggested activities for a business retention and expansion program include an ongoing business visitation program, personal contacts, inventories of existing space, business management seminars and educational programming, industry appreciation events, networking opportunities and business associations.*[2]

The report notes that BRE programs not only help communities to identify and assist at-risk companies early-on, but also that it is easier to attract new commerce if existing industries are expanding, especially if local business owners are promoting the community as a good place for business to their peers and suppliers. Formal BRE programs benefit from both direct outreach to business owners, as well as passive or interrelated programs such as a local "Shop Snoqualmie" program or transit support to help the employee base or an industry cluster. The City has recently partnered with the Snoqualmie Valley Chamber of Commerce for Economic Development Services to work with local merchants to retain and enhance existing businesses.

Technical Glass Building, Snoqualmie Ridge Business Park, 2008

F. BUSINESS RECRUITMENT

Business recruitment, or attraction, is a magnetizing but often challenging economic development strategy. Many cities compete annually for prospective businesses in search of a new home or expansion location, which means that a successful recruitment strategy requires identifying in advance the types of businesses that are the best match for the community, and having strategies in place to secure an industry once a business leader shows interest.

> *The challenge for economic developers is to determine which businesses are the best prospects and most compatible with the community's needs and resources. It is also important to understand the market that is identified and targeted in order to focus attraction efforts and community resources in areas that will be effective. Businesses take multiple factors into consideration when seeking a location. The responsiveness of the economic development organization with this information will improve the competitive position of the community.*[2]

Marketing to attract businesses is a common tactic, though it can be expensive; it uses the target sectors with growth potential, and focuses on "linkages to existing businesses in the area, and reasons to be attracted to the particular region or local government setting because of particular competitive factors."[3]

[2] WEDI, "A Guide to Preparing the Economic Development Element …" August, 2003, www.wi-edi.org/docs/WEDI-ED-Handbook.pdf , page 25.
[3] American Planning Association, "Tools of the Trade," *Community Indicators* (PAS 517), http://www.planning.org/eda/toolkit/#4

F.1 THE PROSPERTIY PARTNERSHIP

The Prosperity Partnership, launched in 2004 by the Puget Sound Regional Council (PSRC), was developed to help create and implement the regional economic strategy – Vision 2040; it has grown to over 300 organizations in five years' time, with the Snoqualmie Valley Chamber of Commerce as a participating member. By understanding the regional economic strategy, the City can both align with it and design policies and programs that will more likely help local businesses to thrive.

The regional economic development strategy proceeds along a business sector, or "cluster," focus.

> *Industry clusters are geographically concentrated cooperative networks of interdependent firms, research and development institutions, and other intermediary actors where the close contacts of the members and the continuous, fast knowledge exchange between them contribute to the competitive increase of both the members and the whole region…In a cluster, firms and others within a concentrated geographical area cooperate toward common goals, and establish close linkages and working alliances to improve their collective competitiveness.*[4]

One central prong of economic development can be workforce development, and emphasizing relative attraction of a community to potential employees. The Prosperity Partnership report also notes that,

> *The greatest challenge confronting virtually all clusters is access to a skilled workforce. "This is true for high tech industries unable to find enough local college graduates in certain engineering, computer, and life science fields. It is also the case for traditional production and transportation industries facing the prospect of an aging workforce with few young people entering critical occupations.*[4]

The Prosperity Partnership identified fourteen primary industry clusters for the 4-County Central Puget Sound region:

- Aerospace
- Business Services
- Clean Technology
- Information Technology
- Life Sciences
- Maritime
- Military
- Philanthropies
- Tourism & Visitors
- Transportation & Logistics

Different industry sectors are appropriate for different areas of the city – it would be a poor strategy to locate an industrial operation in the middle of downtown, and recruit small retail boutiques to fill up large business park parcels. Instead, recruiting should not only be in context of the region and city, but also local centers within the City.

Business Location Factors

The 2003 report by the Wisconsin Economic Development Institute lists information that should be retained in a community database, ready for distribution to interested businesses. Some of these may be in a community profile; others may need regular data updates from appropriate sources.

"Location: Access to customers/ markets, suppliers, transportation (highway, rail, port, air) facilities.

Facilities: Buildings, land, incubators, office space, land, water, sewer, transportation and telecommunication infrastructure.

Business costs: Cost of facilities, labor, taxes, energy.

Financial: Availability and cost of capital, community/state economic development resources.

Workforce: Availability of workforce, cost, skill levels, productivity

Business Climate: Permitting, regulations, zoning, government responsiveness to business

Knowledge Resources: Training resources, universities, colleges, research parks, labs.

Business Resources: Networking, trade associations, training, exporting, procurement resources.

Quality of Life: Cost of housing, quality of schools, low crime rates, recreation and cultural amenities."

[4] Prosperity Partnership, "*Regional Economic Strategy for the Central Puget Sound Region: ECONOMY*," July 25, 2012 www.prosperitypartnership.org/clusters/whatsacluster.htm, pg 5.

F.2 LOCAL CENTERS: RIDGE BUSINESS PARK

The ~120-acre Snoqualmie Ridge Business Park was developed in 1997 as part of the Snoqualmie Ridge mixed-use, master-planned community. The business park was required as part of the master plan to provide a location for local employment. Office and light manufacturing/industrial uses are allowed per the Snoqualmie Ridge Development Standards. Certain retail uses are also allowed on lots adjacent the Snoqualmie Parkway.

Existing businesses include a mix of industry types, ranging from a large medical device manufacturer to a tempered glass manufacturer, a sports equipment company's R&D and distribution facility, engineering firms, government offices, and a condominium office supporting a variety small professional businesses. In an effort to increase occupancy and optimize use of the remaining business park lots to meet city economic development objectives, the City retained the Seattle-King County Economic Development Council staff to complete a recruitment study and plan for the business park and provide recommendations for the use of the Snoqualmie Mill Site. The 2013 *Final Report and Recruiting Plan* prepared for the City by the Seattle-King County EDC cited the following industry clusters as potential candidates for Business Park recruitment, listed in their order of priority:

- Medical device companies
- Environmental engineering firms
- Outdoor sports and apparel companies
- Aerospace suppliers
- Information technology companies

Snoqualmie Ridge Business Park Building

Mt Si over Mill Pond. Photo by Jim Reitz. Used with Permission.

F.3 LOCAL CENTERS: MILL SITE

Mill Site

Mill Site history, character defining features, as well as issues and opportunities, are discussed in Community Character Element 5 *Section E.9 Mill Site,* and Land Use Element 7 *Section E.3 Mill Planning Area.*

The Mill Site was once the location of the Snoqualmie Falls Lumber company, which operated for approximately 80 years until operations slowed to a halt between 1997- 2002. In 2010, the rally car driving school Dirtfish opened on a portion of the old Mill site, and shortly after in 2012 the city council annexed a majority (593 acres) of in the Mill Planning Area into the City proper.

While a large portion of the Mill Site is within the floodway and zoned open space, between 100 – 150 acres are undergoing private planning for redevelopment. Site owners entered into a pre-annexation agreement with stipulations that must be met prior to site development, and have noted that the site will undergo environmental remediation, restoration of flood storage, and wetland enhancement and protection prior to development. Sufficient water rights will also have to be established prior to development (See Land Use Element 7 *Section G. Water Rights* for more on this topic). Although planning is still in preliminary stages, the area is anticipated to have the potential for at least 1.3 – 1.7 million square feet of building space, depending on the specific types of development that are proposed for the site.

Another 200 acres of the site has potential for low-impact, open space development as recreational land, including areas around Borst Lake. The regional Snoqualmie Valley Trail has terminus points just north and south of the site, and the owners have agreed to provide right of way for trail connection, which has potential for attracting long-distance bicyclists and hikers.

The 2013 *Final Report & Recruiting Plan* recommended the Mill Site be developed as a corporate campus, though more study is needed. The report included Recommended Actions to further develop a Mill Site strategy.

F.4 LOCAL CENTERS: RETAIL DISTRICTS

Multiple plans have recommended target businesses for retail sectors in Snoqualmie. This section reviews recruiting recommendations for the two primary retail areas, Downtown Snoqualmie and the Ridge Marketplace, incorporating recommendations from the *2002 Snoqualmie Retail Development Plan* by E.D. Hovee & Co; the *2006 Economic Development, Branding &Marketing Plan* by Destination Development; the 2007 *Retail Service Mix for Snoqualmie Ridge Development* by Hebert Research Inc.; and the *2010 Downtown Master Plan* by Beckwith Consulting. As noted in the *Economic Development, Branding &Marketing Plan (EDP)*, the retail environment in Snoqualmie Valley and surrounding area is very competitive. With easy access to multiple retail locations close to I-90, residents and visitors are able to shop in many different cities. The plan cites the 2002 Retail Development Plan, which stated that businesses in the city would enjoy the greatest success in primary and tertiary markets, which attract customers due to reputation, ambiance, or unique retail qualities.

Downtown, 2010 Infrastructure Improvements

Retail Recommendations

The *2006 Economic Development, Branding & Marketing Plan* recommended recruiting from these retail business sectors for the Downtown:

– Bakery: breads and desserts
– Coffee shop and deli
– Internet cafe
– Wine shop and tasting room
– Market-fresh goods/ an ongoing market
– Specialty gourmet/ethnic foods
– Kitchen accents, utensils
– Additional ethnic dining (~6 restaurants)
– Restaurant serving breakfast
– Revitalized ice-cream/soda fountain shop
– Home furnishings and accents
– Galleries (1-2) with artists in action
– Gifts & antiques (not second hand items)
– Handmade Northwest goods
– Tribal gallery and goods
– Bookstore (with reading areas)
– Train hobby store
– Outfitter with guide/tour services
– Visitor information center
– Real estate office
– Boutique upstairs hotel
– Sporting goods store

On top of this list, the 2010 *Downtown Master* Plan also recommended:

– Pet supply and services
– Wildlife (bird feeders, birding equip.)
– Bicycle sales and repair
– Photographers, cameras & printing
– Lifestyle/fitness equipment and studios
– Bed-and-breakfasts/boutique lodges

Each of these businesses has different trade organizations which could be contacted for potential leads. Appendix B in the 2010 Downtown Master Plan contains a detailed Recruitment Strategy to help build the Downtown Retail base.

Strong retail markets naturally help provide goods and services to citizens, but are also beneficial for tourism – providing places for visitors to shop, with local merchants often participating in events for visitors to enjoy. However, attracting, retaining and building strong retail markets can be challenging, with multiple factors influencing your local businesses, including local setting, community appearance, rental rates and access to a viable customer base all playing a role. Specific retail nodes are identified in Figure 3.1, Retail Opportunities Map.

Some of the recruitment recommendations for the Downtown may have crossover for other retail areas; some of the same businesses have been directly recommended for the Ridge Marketplace, as well as a few different ones. The 2007 *Retail and Non-Retail Service Mix for Snoqualmie Ridge* by Hebert Research stated that additional retail space was needed to support a bakery, book store, sporting goods store, lawn & garden center, more family restaurants, a full-service drug store, and possibly specialty stores, a larger grocery store, and a boutique hotel. While land suitable for additional retail space is a continuing concern in the City, these recommended businesses should be considered again when there are vacancies with suitable square footage in existing areas.

G. LOCAL PARTNERS

There are multiple groups and organizations that contribute substantially to the city's prosperity and vitality. The following groups are either independent or city-facilitated entities specifically dedicated to promotion of commercial and economic endeavors in Snoqualmie.

Snoqualmie Valley Chamber of Commerce

The Snoqualmie Valley Chamber of Commerce helps promote businesses, assists with community activities, hosts member events, and helps to maintain a healthy economic environment overall. The organization works with business owners, government leaders and community organizations, with over 300 members across Snoqualmie Valley.

Merchant Associations

There are two active volunteer merchant associations in the City, with business owners collaboratively addressing items of interest in local retail districts, as well as contributing to (or hosting) local events. The Snoqualmie Valley Chamber of Commerce helps host association meetings; associations frequently collaborate with other groups in the city.

Economic Development Commission

This seven-member, volunteer commission was created by the City to evaluate current city issues, projects, and economic development priorities; advise the city administration and City Council on business community interests; and to help foster a positive economic environment.

In addition to the above partners, there are other entities in the region that can play a large role in the local economy. For instance, the cities of Carnation, North Bend and Issaquah affect marketsheds for prospective businesses; even Farmer's Market days in other cities can cause ebbs and flows in how many customers are frequenting stores, and how well-attended other city events may be. Other influences include the regional economic planning body of the Economic Development Council of Seattle and King County, as well as the Snoqualmie Casino (detailed at right).

The Snoqualmie Tribe

The Snoqualmie Tribe gained federal recognition as a sovereign nation in 1999. In 2006 a 57-acre Tribal-owned property outside city limits but within the UGA was designated as reservation land. The Tribe also purchased the nearby 2-acre Snoqualmie Valley Hospital property, and has acquired additional properties is the vicinity of the reservation.

As noted by the US Bureau of Indian Affairs,

> *"…Federally recognized tribes possess both the right and the authority to regulate activities on their lands independently from state [and local] government control. They can enact and enforce stricter or more lenient laws and regulations than those of the surrounding or neighboring state(s) wherein they are located."* www.bia.gov/FAQs/index.htm

As a sovereign tribal nation, the Tribe may purchase property separate from tribal reservation land, though only contiguous lands may be added to that reservation. Federally recognized reservation lands are not subject to state or federal income tax, state sales tax or local property tax.

In 2008, the Tribe opened a Casino on the reservation, which includes 52,000 square feet of gaming space, an 11,000 square foot ballroom & concert venue, four restaurants and additional amenities, and currently provides ~1,200 jobs. The Tribe has indicated it plans to add land to the reservation, with plans for casino expansion, a large hotel, a tribal health center, and retail development on its properties within the City's UGA.

Tribal Jobs and commercial activity influence the local economy, but in a different manner than other commercial ventures near or within City limits. Regardless, the Casino is an economic driver in the region, and its influences must be considered when making economic development decisions.

H. JOBS-HOUSING BALANCE

Improving the City's jobs/housing balance is another important goal of economic development. A better jobs-housing balance provides more

opportunity for residents and outside employees to live and work in the community, with adjunct benefits of reduced travel time and costs, while also reducing air pollution, traffic and public facility expenditures.[5]

Table 3.1
JOBS/HOUSING BALANCE, CURRENT & FUTURE PROJECTIONS

	Households	Jobs	Jobs-Housing Balance	Jobs Added
Current Status	***3,943***	***3,006***	***.76***	–
Business Park Build-out	3,943	3,305	0.84	299
With 20 Year Housing Build-Out	5,887	3,305	0.56	–
With Mill Development	5,887	4,127	0.70	822
Other Jobs (in-city, not UGA)	5,887	4,739	0.80	612
With Snoqualmie Hills Business Park	5,887	5,739	0.97	1,000

An appropriate jobs-housing balance is generally a ratio of 1-1.5 jobs per household, or *1-1.5 Jobs: HH*.[5] In 2010, King County averaged 1.3 Jobs: HH, while the NE Rural Cities and rural area averaged 0.6 Jobs: HH.[6] Using a housing count of 3,270, and an existing jobs count of 3,006, the current city ratio is 0.82 Jobs:1 HH, which is slightly below the low end of the desired range. Were commercial and residential land-uses to reach full 2032 build-out levels as projected in the Land Use element, the jobs-housing balance is projected to be 1.06 Jobs:1 HH,[7] bringing the city within the preferred parity range.

Table 3.2
JOBS/HOUSING BALANCE ACROSS SIX KING COUNTY REGIONS, 2010

	Total Pop in 2010	Total Housing Units, 2010	Households 2000*	Households 2010	2010 Household by Three Regions	Percent Change in Households Since 2000	Covered Jobs in 2000	Covered Jobs in 2010	Covered Jobs 2010 by Three Regions	Percent Change in Jobs Since 2000	Number of Jobs Per Household in 2010
SEATTLE	608,660	308,516	296,200	283,510	310,095	4.7%	532,500	462,180	480,327	-9.8%	1.6
NORTH URBAN REGION	65,605	28,055		26,585				18,147			0.7
EAST URBAN REGION	460,594	199,067	184,150	184,305	215,024	16.8%	304,000	297,181	314,882	3.6%	1.6
NORTHEAST RURAL CITIES and NE Rural Area	85,951	32,624		30,719				17,701			0.6
SOUTH URBAN REGION	585,717	235,336	230,550	219,531	264,195	14.6%	314,600	283,982	304,420	-3.2%	1.3
SOUTHEAST Cities and SE Rural Area	124,723	47,200		44,664				20,438			0.5
KING COUNTY TOTAL	**1,931,249**	**851,261**	**710,900**	**789,232**		**11.0%**	**1,151,100**	**1,099,639**	**1,099,629**	**-4.5%**	**1.4**
TOTAL KC OUTSIDE SEATTLE	**1,322,589**	**542,745**	**452,401**	**505,722**		**11.8%**	**658,340**	**637,449**		**-3.2%**	1.3

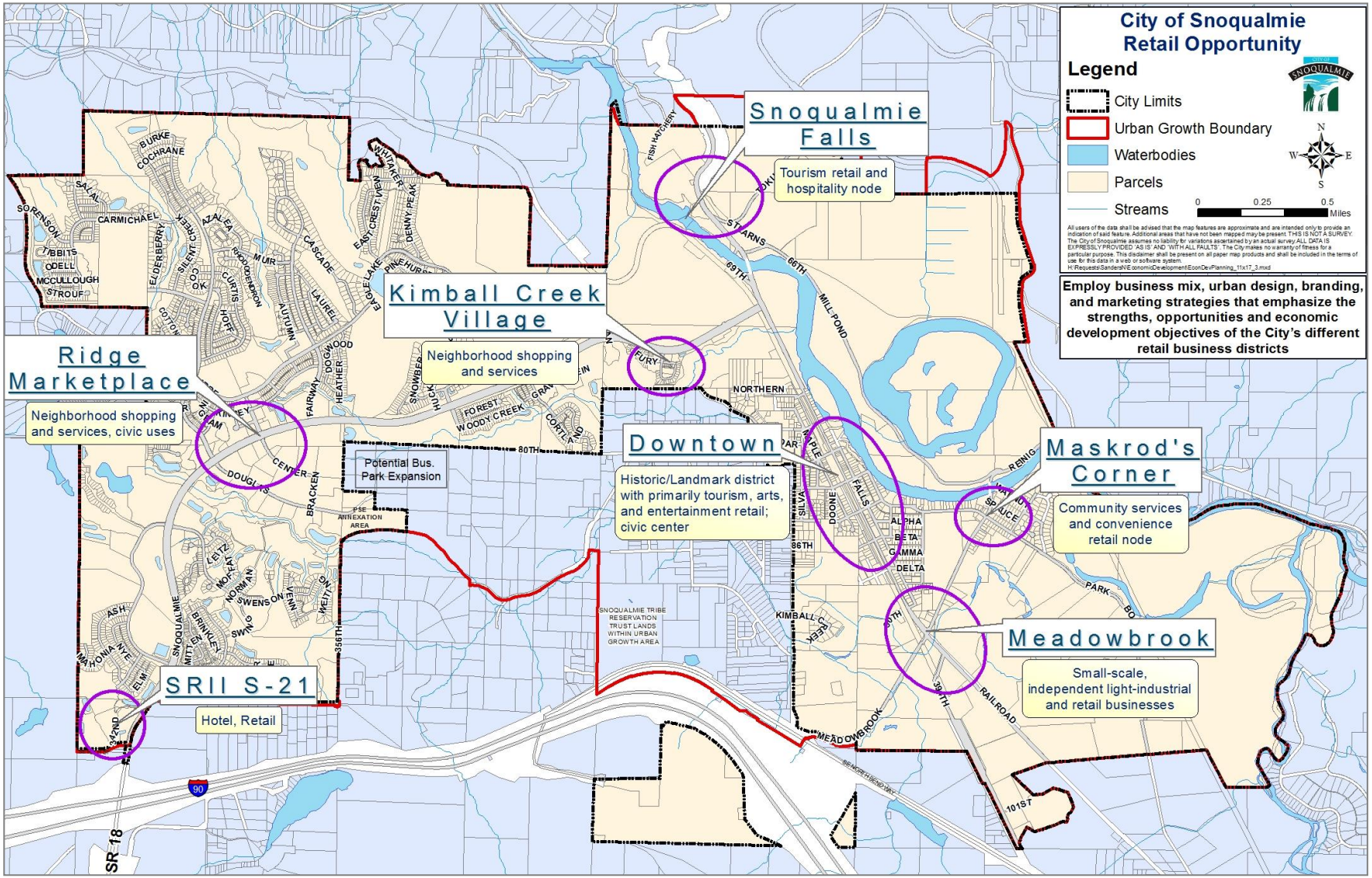
Table excerpt from King County Comprehensive Plan 2012, 09/ 2012, Technical Appendix B: Housing, pg 49. Snoqualmie is in the NE www.kingcounty.gov/property/permits/codes/growth/CompPlan/2012Adopted.aspx#tech

[5] Weitz, Jerry. "Jobs-Housing Balance," APA PAS Report 516, November 2003. Referencing studies by Ewing (1996) and Cervero (1991;1996). Page 4. http://www.planning.org/pas/reports/subscribers/pdf/PAS516.pdf

[6] King County Department of Community and Human Services, "Executive Recommended 2012 King County Comprehensive Plan Update, Technical Appendix B: Housing," March 1 2012, Page 46, www.kingcounty.gov/property/permits/codes/growth/CompPlan/~/media/property/permits/documents/GrowthManagement/CompPlan2012ExecRec/TechAppendixBPDF.ashx

[7] Land use changes assume development of the Mill site to half its potential, and the conversion of 71.5 acres in the UGA for commercial uses.

Figure 3.1 Retail Opportunities Map



APPENDIX 3-I

RECOMMENDED TARGET INDUSTRY CLUSTERS AND RECRUITMENT ACTIVITIES

The following industry clusters were recommended for targeted recruitment in the 2013 City of Snoqualmie Final Report and Recruiting Plan prepared by the City by staff of the Economic Development Council of Seattle and King County.

Medical Devices

The medical devices sector is a part of the commercial activities subsector of the life sciences industry; other subsectors include medical research and the provision of medical care. About 29,000 people in the Puget Sound Region were employed in life sciences in 2011, with employment in this sector is largely "recession-proof." During the past five-year economic downturn, life sciences employment grew by 8%, when overall employment fell 4%. While research establishments cluster around the University of Washington and the Fred Hutchinson Cancer Research Center, other medical device companies show diverse locations all along the I-90 and I-405 corridors, with concentrations in Bothell, Kirkland, Redmond, Bellevue, Issaquah and Snoqualmie.

There are currently about 250 medical device companies in the State, ranging in size from small start-ups to large mature corporations. Medical device companies have several advantages over other types of life science activities, one of the most important being that there is less federal review and oversight than in the pharmaceutical and research fields. Medical device subsector jobs tend to be high-wage, and companies needs in terms of space tend toward mixed uses, including offices, labs and assembly facilities. This is a recommended target industry for the Ridge Business Park.

Environmental Remediation (Clean Technology & Environmental Engineering)

The clean technology sector is a diverse collection of related industries, including clean energy, clean fuels, green design and development, remediation (or "clean-up"), recycling, water quality and lean manufacturing, all with the common theme of a reduced use of scarce resources. The Puget Sound region was one of the first areas in the United States to recognize this sector, and is now one of the leaders in the field, employing 26,000 people across 1,800 firms in 2011.

One of the characteristics of a new field is fairly rapid change, and this is true of the clean technology sector. Large-scale alternative energy projects financed by federal grants have given way to software development for energy efficiency and "smart grid" applications. With the recession and the sequestration currently in effect, it is unlikely that there will be large public projects in the near term, especially with investors pulling away from alternative energy projects due to increased natural gas supplies, and their consequent drop in price. However, research continues and commercialization of the research with market potential will continue to fuel the clean technology sector. As noted above, one promising area has been the energy efficiency software development; others include the development of longer-lasting or more efficient electric vehicle batteries, and the remediation field. According to the Environmental Business Journal, the remediation field grew by about 10% in 2012 over 2011, with growth expected to continue based on oil and gas industry remediation work and opportunities in Asia and Africa. Based on its growth potential, and the lack of a need to be in a specific location, this subsector has potential for capture by the business park.

Outdoor Sports and Apparel

Although the production of sports equipment and apparel is not a formal sector in the Puget Sound strategy, it is a "stealth" industry in the metropolitan area. Representative firms include K2 (skis and snowboards), REI (outdoor clothing and equipment), Eddie Bauer (clothing), Filson (outdoor clothing and hunting gear), Patagonia (clothing), and Motion Water Sports (wakeboards, water and snow skis, and related equipment).Virtually all mass-market clothing is now produced in countries with low labor costs, from Mexico and other Central American countries to Vietnam, Malaysia and Bangladesh. The clothing companies above have targeted high-value niche markets where quality, reliability and durability are more important than price. The same is true for manufacturers such as K2 and REI. While information on this quasi-sector is not available for the Puget Sound region, state-wide information on the apparel industry notes there were 12,500 jobs in apparel production across 1,500 firms in 2010 (though not all of these are outdoor apparel producers).

This industry shows more volatility than other sectors for two reasons. Firstly, a technological change in production techniques or new design can shift market share quickly, and secondly, unlike the other discussed industries, this one caters to a relatively small, relatively wealthy market segment with many choices for their discretionary spending. While the industry as a whole should continue to grow as disposable income increases, individual companies remain at risk.

Aerospace Suppliers

Aerospace is the region's oldest industrial cluster, founded here a century ago, and although there are about 585 aerospace companies in the region the sector is dominated by one company: Boeing. Employment fluctuates with Boeing's fiscal health, with regional employment falling from 95,000 jobs in 2000 to about 87,000 in 2011. Although some companies also supply Airbus, Boeing remains the driver, with aerospace firms clustering along the I-5 and I-405 corridors to be physically close to the Everett and Renton Boeing plants. For this reason, growth in the industry is uncertain, as Boeing continues to diversify its production among overseas partners, relocate capacity to right-to-work states, and decrease its workforce through increases in productivity. This may be offset somewhat by European firms relocating here, to facilitate their sales to Boeing and to avoid uncertainties with the Euro.

Given the nature of the industry in the Puget Sound region, with most of the firms competing to sell to one company and with that one company able to drive prices down through its dominant position in the marketplace, there is a possible advantage for a firm to locate in Snoqualmie Ridge Business Park, where lower rents would provide a financial edge.

Financial & Business Services

The financial and business services sector is perhaps the largest single sector in the Puget Sound region, in terms of both employment and economic impact. In 2011 this sector employed more than 180,000 people in about 11,000 firms, in activities including banking, money management, investment, accounting, law, insurance and similar occupations. Given the nature of work these firms do, many of them feel it is necessary for them to be located in the central business district of larger cities, both to serve clients and to be close to other industry firms or to the public offices they rely upon. Other parts of the industry are not location-dependent, such as back office functions. These are often located in Class C office space, the main determinant being very cheap rents. Growth in this sector is expected to be modest, at about 4-5% over the next ten years. Given this, and the diffuse nature of the sector, there is some possibility that firms from this sector could be captured by the business park.

Information Technology

The information technology sector in the Puget Sound region is epitomized by Microsoft, yet it is far more than just one company – there are now over 5,300 establishments in the region employing more than 144,000 people in this sector. Although there are a few "giants" in the field, the average size of an IT company is small; the industry is particularly amenable to entrepreneurial activity, since very little is required beyond an idea and a computer to start a business.

One of the characteristics of this industry is that there is an acute shortage of talent. Many of the new hires in this sector each year come from other parts of the U.S. or from abroad, as the state produces relatively few computer science graduates. This factor has served to limit growth in what has been a very high-growth industry. Another industry characteristic is that firms in this field tend to cluster physically, in Redmond (Microsoft), Bellevue (Digipen), Kirkland (Google), and to a lesser degree in Seattle (game companies). This is due to the tendency to hire talent away from one's competitors, and the desire of smaller companies to be acquired by larger ones.

While projections for this industry are quite optimistic, with another 25,000 jobs expected over the next ten years, it is not clear where these employees are going to come from, nor is it likely that the cluster will expand to include other communities unless another major employer locates in another city. Therefore, in spite of the large size and high expected sector growth, it is not anticipated to be an especially high probability for Snoqualmie.

Housing
Table of Contents

LIST OF TABLES

LIST OF FIGURES

A. INTRODUCTION

Housing is one of the fourteen goals of the Growth Management Act (GMA) for City Comprehensive Plans, stating:

> *"Encourage the availability of affordable housing to all economic segments of the population of the state, promote a variety of residential densities and housing types, and encourage preservation of existing housing stock."*

The housing element considers the supply and condition of existing housing and analyzes housing needs for the City's current and projected population. Policies address various topics including residential growth capacity, development of various housing types and densities to meet all population segment needs, and providing low-cost and affordable housing for residents. These policies also seek to retain the community's small town qualities, advances a balance of jobs and housing, and support the environmental, social and economic objectives of other plan elements. The housing element is intended to guide housing retention and development in Snoqualmie over the next twenty years, and to meet the requirements of both King County CPPs and the Growth Management Act.

The Growth Management Act (GMA) requires the Housing Element to:

- Recognize established neighborhood vitality & character;
- Inventory and analyze existing & projected housing needs;
- Have goals, policies & objectives for housing preservation, improvement and development;
- Identify sufficient land for housing of various types; and
- Make adequate provisions for existing & projected needs of all economic segments of the community.

GOAL 4: A broad range of durable and energy-efficient housing options are available for all income levels to support a complete and sustainable community.

B. DRIVING FACTORS: HOUSING

"Always design a thing by considering it in its next larger context - a chair in a room, a room in a house, a house in an environment, an environment in a city plan."

— Eliel Saarinen

City housing policies and programs are driven by three main factors: achieving a jobs-housing balance, meeting legal housing requirements in the state, and housing preservation, all of which are underscored by housing diversity.

Jobs-housing balance, also discussed in Economic Development Section H, is the attempt to match jobs and housing within City limits in both quantitative and qualitative terms, or both in numbers of housing units and the types of housing needed for different incomes and demographic segments of the population. The ultimate goal is housing that fits the community, making Snoqualmie a live, work, play community in deed as well as word.

Housing policies are also driven by Growth Management Act (GMA) requirements, filtered through to King County Countywide Planning Policies (CPPS). CPPs require cities to plan for and provide policy support for affordable housing, including planning for general and affordable housing unit targets in the City.

Housing preservation is also vital to Snoqualmie. Older and historic housing contains a large portion of the City's existing affordable housing stock, as well as displaying some of the rich local City history. As such, it is advisable to support homeowners in maintaining their homes in good condition, both for their history and maintaining affordability.

Ultimately, support for housing diversity affects all of the driving factors in housing. Families of multiple types of incomes, household sizes and cultural backgrounds wish to live in the City of Snoqualmie, and diverse housing helps provide for families of those diverse backgrounds and needs. Diverse housing helps people filling different types of jobs in the City to also reside in the City, and helps provide the City character, in accord with GMA goals and the local vision.

C. PROJECTED HOUSING NEEDS/CAPACITY

As discussed in Land Use Element 7, Snoqualmie has the capacity to accommodate an additional 2,126 housing units by the year 2032, based on assumed densities and available land within mixed use and residential land use designations.

Table 4.1*
PROJECTED 2032 HOUSING UNIT GROWTH BY TYPE
Projected Total Units - Middle Estimate

	Snoq. Ridge I & II	Snoq. Hills E & W	Rest of City/UGA	Total Units
Single Family (74%)	827	529	217	1,573
Multifamily (26%)	212	208	133	553
Total Units	**1,039**	**737**	**350**	**2,126**

**Assumptions from Land Use Element Table 7.6, Residential Development Capacity by Planning Area, using a 2010 base year.*

Counties planning under the Growth Management Act are required to establish household growth targets for each city in the county, representing the minimum number of households required to be accommodated in a 20-year planning period. Cities then demonstrate, through the Buildable Lands Program and their Comprehensive Plans, that they have sufficient, residentially zoned, developable land within their Urban Growth Ares to accommodate the minimum target.

In 2010, the King County Growth Management Planning Council updated household and employment targets for all cities for the 2006-2031 period. The target for Snoqualmie household growth was 1,615 new units; the City will meet its housing target with the build-out of Snoqualmie Ridge Phase II, as the development projected the provision of 2,318 housing units and unit sales did not significantly begin until 2006. [1] The projected unit types listed in Table 4.1 are based on current, remaining Snoqualmie Ridge Phase II units, and the residential capacity of the rest of the UGA.

D. IDENTIFICATION OF LAND FOR HOUSING

The land use designation maps, Figures 7.3 – 7.7, depict identified housing areas, including single family, constrained residential, planned residential, innovative master planned, and mixed use designations. Government-assisted housing, housing for low-income families, group homes, foster care facilities and special needs housing are not restricted from any of these areas. Multifamily housing is allowed in mixed use and planned residential development areas, while accessory units and manufactured housing is allowed in all designations that permit single family uses.

The below table identifies each residential designation's developable acreage both in the City and Urban Growth Area.

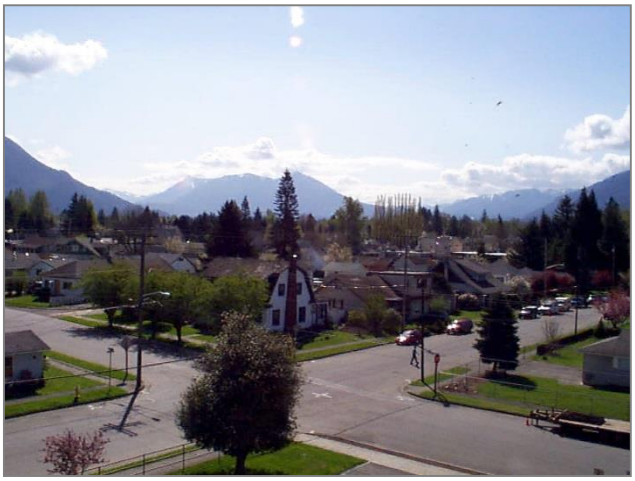
Table 4.2
DEVELOPABLE RESIDENTIAL ACREAGE BY LAND USE DESIGNATION

Land Use Designation	Total Acres	Occupied but Redevelopable	Constrained Developable	Unconstrained Developable	Total Developable
Single Family Residential	173	87	0	43	130
Constrained Residential	637	38	39	41	118
Planned Residential	189	33	0	96	129
Mixed Use*	2,046	0*	0	253	253
Total	**3,045**	**158**	**39**	**433**	**630**

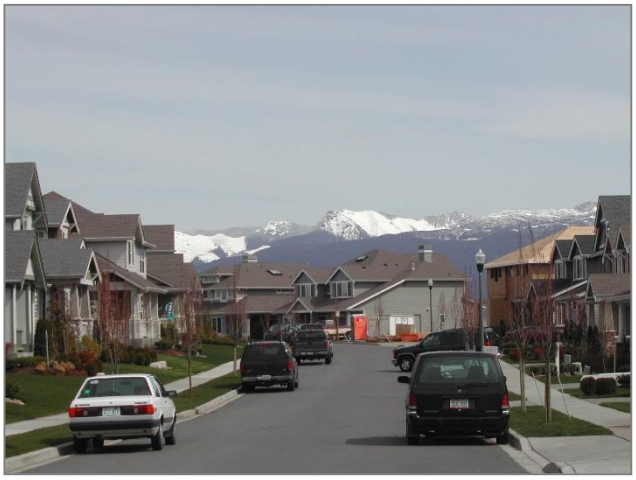
See Land Use Tables 7.2 & 7.6. for Developable Land Uses by Designation. Mixed Use total acres uses the total Table 7.2 acres.
**For Mixed Use, the SRI & II occupied but developable acres are currently designated for commercial development.*

[1] The Mixed Use Final Plan (MUFP) for Snoqualmie Ridge Phase II had an allowance for 2,318 units. Plat 18, Parcel N-5 was approved in July 2005 for 28 units; the next approval, for Plat 19, was in December 2005, necessitating that all Ridge II units (minus those first 28) were built in the range of housing target years, 2006-2031.

E. HOUSING STOCK INVENTORY & ANALYSIS



Typical Housing in Historic Snoqualmie



Typical Housing in Snoqualmie Ridge

According to 2012 Assessor Data, Snoqualmie has a total of 3,943 Housing units, outlined in *Table 4.3: Existing Housing Units, by Housing Type and City Area*.[2] Snoqualmie's housing units are located in two areas, with 17% in Historic Snoqualmie, and 83% located in Snoqualmie Ridge and Kimball Creek Village.

The original Historic Snoqualmie neighborhoods were platted in 1889, with 43% of the housing units built before 1939, and another 25% built between 1940 and the late 1970's (2010 Census). The Historic Snoqualmie housing stock is in good condition, considering its age and floodplain location; 74% of the housing stock is single family detached housing and 26% attached, cottage or multifamily. Single family homes in Historic Snoqualmie are smaller, with one third having two or fewer bedrooms and an average square footage of 1,426 square feet. About 3.5% of the Historic Snoqualmie housing units lack complete plumbing facilities and 1.6% lack complete kitchen facilities.

As all of Snoqualmie Ridge housing was built in the last twenty years, the housing stock remains in average or good condition. Housing in newer areas of the City consists predominantly of detached single family homes (82%), with the remaining 18% of units in attached duplexes/triplexes, townhouses, cottage/condos and multifamily apartments. Homes in Snoqualmie Ridge are larger, the majority having three or four bedrooms, with an average of 2,792 square feet,[3] about twice the average size of a house in Historic Snoqualmie.

Table 4.3
EXISTING HOUSING UNITS, BY TYPE AND CITY AREA*

Type of Housing Unit	Newer Snoqualmie**	% of City Total	Historic Snoqualmie	% of City Total	Total Units	% of City Total
Single Family	2,713	69%	495	13%	**3,208**	**81%**
Duplex/Triplex	0	0%	45	1%	**45**	**1%**
Townhouse	188	5%	0	0%	**188**	**5%**
Cottage/Condo	249	6%	19	0%	**268**	**7%**
Multifamily	120	3%	114	3%	**234**	**6%**
Mobile Home	0	0%	0	0%	**0**	**0%**
Total	**3,270**	**83%**	**673**	**17%**	**3,943**	

** Data references 2012 Assessor Data; non-ACS 2010 Census data does not break down housing unit types.*
*** Newer Snoqualmie is composed of Kimball Creek Village as well as Snoqualmie Ridge I & II.*

[2] There are various data sources that can be useful for estimating current households and their ancillary data; the 2010 census recorded 3,761 housing units, and the Office of Financial Management had estimated Snoqualmie had 3,997 housing units by 2012. Assessors data provides additional housing unit data that is useful for compiling city housing inventories per King County Countywide Planning Policy guidance.

[3] Given that the Ridge is still being developed, final square footage data is not available for all housing units; this average represents the 72% of units with square footage data in newer city areas.

Table 4.4
CITY HOUSEHOLD OWNERSHIP VS RENTAL, 2010

Housing Tenure	Units	As a Percentage
Owner-Occupied Units	3,366	85%
Rental-Occupied Units	577	15%
Total	**3,943**	

According to 2012 Assessor data, there are 114 apartment units (including four-plexes and six-plexes) and at least 84 single family units that are believed to be rentals located in Historic Snoqualmie. There are 120 units in the Echo Ridge Apartments and approximately 107 single family homes that are believed to be rentals in the newer areas of the City. [4] Altogether, these add to 425 rentals in the City, which is less than the 577 rental units recorded by the 2010 Census. It is believed that the remaining 152 rental units are either rented duplexes/triplexes, and/or single family homes being rented which may not be discernible from local utility records on household ownership.

In the 2010 Census, approximately 84% of Snoqualmie's overall households were listed as owner-occupied (2,970 households total), and 16% of Snoqualmie households were listed as rentals, or 577 units. This rental percentage falls below both the King County average, and the rental/ownership ratio of several smaller cities in east King County, though it is not the lowest ratio among nearby cities. The total City household count in Table 4.5 below is lower (and consequently, the rental percentage higher) than shown in Table 4.4, as it reflects 2010 census totals, and single family housing development has continued in the last two years.

Table 4.5
OWNERSHIP VS RENTALS, VARIOUS JURISDICTIONS, 2010 CENSUS

	King County	Snoqualmie	Carnation	Duvall	Issaquah	Maple Valley	North Bend	Woodinville
Population	*1,931,249*	*10,670*	*1,786*	*6,695*	*30,434*	*22,684*	*5,731*	*10,938*
Households #	***789,232***	***3,547***	***631***	***2,224***	***12,841***	***7,679***	***2,210***	***4,478***
Owner-Occupied	59.1%	83.7%	73.5%	88.1%	65.6%	84.7%	60.8%	65.3%
Rental	40.9%	16.3%	26.5%	11.9%	34.4%	15.3%	39.2%	34.7.%

Additional information is available on Snoqualmie's current 3,253 single family and duplex/triplex housing units based on 2012 Assessor Data.[5] A breakdown of these 3,253 units by lot size and average house size provides a snapshot of the current stand-alone City housing stock. Table 4.6 shows the number of units in different lot size categories, and compares newer development areas with the historic area of the City.

Table 4.6
RESIDENTIAL LOTS BY TYPE, BY TYPE

Residential Lot Type*	Lot Range (sq ft)	Newer Areas	As a %	Historic Area	As a %	Total in-City	As a %	Lot Avg. (sq ft)	House Size Avg. (sq ft)	Bedroom Avg. #
Small Lot	**1,500 – 3,500**	134	5%	6	1%	**140**	4%	2,895	1,725	2.8
Cottage Lot	**3,501 – 4,500**	438	16%	46	9%	**484**	14%	4,104	2,052	3.3
Neighborhood Lot	**4,501 – 5,500**	564	21%	51	9%	**615**	19%	5,068	2,318	3.4
Manor Lot	**5,501 – 6,500**	533	20%	38	7%	**571**	18%	5,977	2,560	3.6
Urban Estate Lot	**6,501 – 8,000**	490	18%	172	32%	**662**	20%	7,177	2,406	3.5
Large Lot **	**8,001 – above**	554	20%	227	42%	**781**	24%	11,667	2,636	3.7
	Total:	**2,713**		**540**		**3,253**				

** Lot Type definitions adapted from the Stapleton neighborhood Master Plan (Denver, CO) & Snoqualmie Ridge Design Standards. Lot analysis only applies to Single Family, Duplex & Triplex data. **The Large Lot type reports the mean of all entries minus 3% or 21 downtown home entries. These large outliers of ~45,000 – 750,000 sq ft lots distort the mean; when included, it is 16,522 sq ft.*

[4] Table 4.4 Rental/Occupancy percentages reference 2010 Census Data, as no new designated for-rent housing as been built since 2010. Rental single family, duplex and triplex units were estimated by tabulating taxpayer addresses that did not match the living unit address, indicating landlords living outside the City. Taxpayers whose address was listed nearby (North Bend, Issaquah and Carnation) were checked against water bill payers, and if the water bill payer was the same name as the taxpayer name, the unit was considered owner-occupied and removed as a rental unit. Units listing a financial/loan institution as the taxpayer were also not included, as these were assumed to be in foreclosure and intended for resale.

[5] Note: 2012 Assessor data contained 3,228 stand-alone units within Snoqualmie City limits; duplex/triplex units increased the total to 3,253 units.

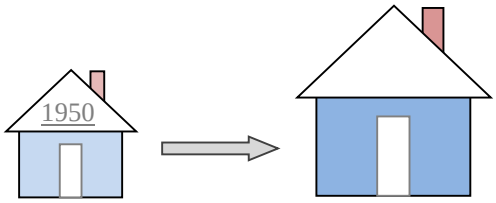
As can be seen in Table 4.6, the Historic Downtown is composed predominately of larger lots, with 75% sized at 6,500 sq. ft. or larger, primarily due to the older date of development for many of the lots, and restrictions on modern residential density increases due to their floodplain location. The larger lot pattern does not necessarily indicate larger home in the downtown area, as can be seen in Table 4.7 below, however in general there is a correlation between increasing lot size and increased housing size. There are also moderate gains in number of bedrooms with increases in lot size, though most lots average somewhere between three and four bedrooms regardless of the lot.

The data available for some units did not include ancillary information such as housing square footage or number of bedrooms, potentially because housing is still rapidly developing in the City and may not have been captured in the last interval that Assessor data was collected. For housing size, 727 records lacked housing square footage data, so housing totals will not match the 3,253 units reported on previously; however, reported averages correct for these data "holes" and provide the best snapshot available at this time.

Table 4.7
SINGLE FAMILY/DUPLEX/TRIPLEX HOUSING, BY SIZE

Home Type	House Size Range (sq ft)	Newer Areas	As a %	Historic Area	As a %	Total	As a %	House Size Avg.	Lot Avg.	Bedroom Avg
Mini Home	**Under 500**	0	0%	7	1%	**7**	0%	417	6,080	1.0
Small Home	**500 – 1,500**	38	2%	322	60%	**360**	14%	1,127	10,918	2.6
Below Average	**1,501 – 2,000**	305	15%	141	26%	**446**	18%	1,772	10,587	3.1
Average Home	**2,001 – 2,500**	541	27%	38	7%	**579**	23%	2,303	6,607	3.4
Above Average	**2,501 – 3,000**	509	26%	16	3%	**525**	21%	2,738	6,719	3.8
Large Home	**3,001– above**	593	30%	16	3%	**609**	24%	3,673	9,696	4.2
	Total:	**1,986**		**540**		**2,526**				

a[6]



Average U.S. house size has doubled in the past 50 years.

"The average size of new (U.S.) houses increased from about **1,100** ft^2 in the 1940s and 1950s to **2,340** ft^2 in 2002. Factoring together the family size and house size statistics, we find that in 1950 houses were built with about 290 square feet per family – whereas in 2003 houses provided 893 square feet per family member …" [6]

Table 4.7 shows that the Historic Area housing size is consistent with historical indicators, as 60% of the housing units were built before 1970, when average house square footage was much smaller, even though family size was larger.

Table 4.7 also shows that 56% of housing in newer areas exceeds the average 2010 Census median house square footage for new homes of 2,169 square feet; the recorded median peak in new US housing size was around 2,277 ft^2, and the recorded mean average peak was 2,521 ft^2. [6]

Figure 4.1 Housing Size Over Time

Table 4.8 shows housing unit size compared to affordability. There is a strong correlation between smaller housing square footage and reduced housing cost, though variables such as house age and condition interfere with drawing strong conclusions. In general, though, houses are more expensive when larger.

Not assessed in the Table 4.8 is a series of Cottage and Townhome housing units in the City, or smaller detached and attached housing units in a condominium arrangement, with the land held in common among the landowners. In these units, the correlation between small housing square footage and reduced housing cost is stronger, despite variables such as house age and condition. However, in such Cottage housing cases a new variable – the fact that the land is held in common – again impacts the correlation between housing size and affordability. In general, however, the data indicates that strategies to incentivize smaller housing square footages and condos with land held in common may help support long-term housing affordability. These strategies are further discussed in Section G, *Affordable Housing.*

6 US Census, "Median and Average Square Feet of Floor Area in New Single-Family Houses Completed by Location (1973 – 2011), "Characteristics of New Single-Family Houses Completed; http://www.census.gov/construction/chars/pdf/medavgsqft.pdf

Table 4.8
SINGLE FAMILY/DUPLEX/TRIPLEX, HOUSE SIZE AND AFFORDABILITY

Home Type	House Size Range (sq ft)	Newer Areas	% in this Area	Historic Area	% in this Area	Total	As a %	Affordability Levels (by AMI)					
								Very Low 0% - 30%	Low 30% - 50%	Moderate 50% - 80%	MiddleA 80% - 120%	Over Median 120 - 180%	High Over 180%
Small Home	**Under 500**	0	0%	7	1%	**7**	0%	0	**5**	1	1	0	0
Cottage Home	**500 – 1,500**	38	2%	322	60%	**360**	14%	5	64	**250**	41	0	0
Below Average	**1,501 – 2,000**	305	15%	141	26%	**446**	18%	0	1	91	**352**	2	0
Average Home	**2,001 – 2,500**	541	27%	38	7%	**579**	23%	0	1	13	**421**	144	0
Above Average	**2,501 – 3,000**	509	26%	16	3%	**525**	21%	0	0	0	121	**404**	0
Large Home	**3,001– above**	593	30%	16	3%	**609**	24%	0	0	0	11	**348**	250
	Total:	**1,986**		**540**		**2,526**							

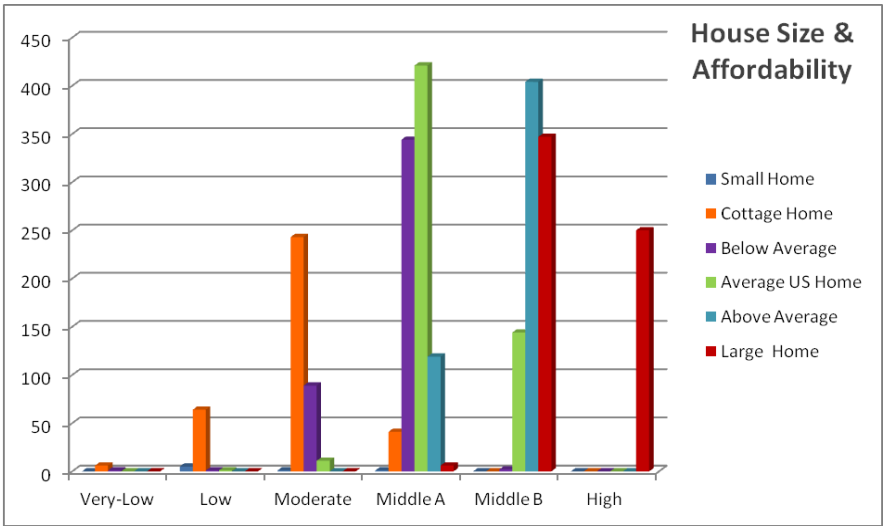


Figure 4.2: House Size & Affordability, 2012

Condo Cottage and Townhouse Units
not included in above assessment

Aspen Village (Si Meadow Townhomes)
Cottages at the Heights (SE Tibbits)
Fairway Townhomes
The Falls Condos
Habitat for Humanity (Koinonia Ridge)
Mt. Si Cottages (Hancock Ave SE)
Snoqualmie Gardens (SE Beta St.)
Si Meadows Condominium (SE Sequoia Pl.)
Magnolia Cottages (Magnolia Circle)
Snoqualmie Ridge Cottages (SE Osprey Ct.)

This housing inventory is intended to fulfill recommended inventory attributes in the 2012 King County Countywide Planning Policies, Appendix 4, Housing Technical Appendix, which lists the following in this Section and the next:

- Total housing stock & types of structures in the community;
- Unit types and sizes (i.e., numbers of bedrooms per unit);
- Housing tenure (rental vs. ownership housing);
- Housing condition.

See *Section G. Affordable Housing*, for the following:

- Amount of housing at different price and rent levels, including rent-restricted and subsidized housing;
- Housing supply, including affordable housing, within designated Urban Centers and local centers;
- Location of affordable housing within the community;
- Redevelopment & reuse trends impacting affordable housing supply
- Statistics on vacancy, occupancy and overcrowding;
- Transportation costs as a component of overall housing cost burden.

See the following sections for these Inventory Items

- Capacity for additional housing by type, under current zoning: *Section 4.C. Project Housing Needs/ Capacity.*
- Neighborhoods with unique housing conditions or amenities: Community Character *Section 5.E, Neighborhood Profiles.*
- Transit corridors are located in Transportation Element *Figure 8.5.*

F. FLOODWAY & FLOODPLAIN HOUSING

Flooding is also discussed in Land Use Element 7, *Section F. Floodplain Land Use,* & Environment Element 6, *Section G.3 Frequently Flooded Areas.*

Flooding has always affected housing in Snoqualmie, with a downtown entirely in the floodplain and large sections also in the floodway. Flooding and flood policy continue to affect downtown homes, affordable housing, and the economic well-being of residents and business. While other Plan elements delve into flood history and floodplain land uses, this section addresses how flood policy specifically affects the housing stock.

In 1968 Congress created the National Flood Insurance Program (NFIP) under FEMA to provide a means for property owners to financially protect themselves. The NFIP offers flood insurance to homeowners, renters and business owners in participating NFIP communities, and also manages the Community Rating Sytem (CRS) – a voluntary program providing incentives for floodplain management exceeding minimum NFIP requirements. Flood insurance is federally mandated for buildings in high-risk flood areas with federally backed mortgages, disaster assistance or mitigation grants. In July 2012, NFIP was reauthorized through 2017 under the Biggert Waters act (BW-12), but with reforms stimulated from the high costs of events like Hurricanes Katrina and Sandy. The reforms sought to increase NFIP financial stability, raise rates to reflect the true flood risk, and change how Flood Insurance Rate Map updates impact policyholders. BW-12 will have large impacts to downtown Snoqualmie, all of which is within the floodplain and hence part of the City's Special Flood Hazard Area (SFHA) by FEMA. For SFHA buildings that are not sufficiently above the 100-year Base Flood Elevation (BFE), BW-12 will:

- Raise flood insurance rates 25% annually (until rates reflect true risk) for the properties that are:
  - Non-primary residences,
  - Business/non-residential, and
  - Repetitive Loss or Severe Repetitive Loss **(**RL/SRL).
- Primary residences will keep their subsidized rates, unless or until one of the below occurs, at which time there is an immediate increase to the full risk rate:
  - The policy lapses,
  - Property suffers severe, repeated flood losses,
  - A new policy is purchased, or
  - The property is sold. *It should be noted that this will impact property sales due to increased premiums.*
- In addition, there is a premium increase on all SFHA properties between 6-16%.

Both private and public entities can take actions to reduce BW-12 impacts. For instance, landowners may reduce costs by mitigating to decrease risk. In some cases, Elevation Certificates (ECs) may immediately reduce costs, though it may be inadvisable to obtain an EC prior to mitigation as it may determine that the house is at a low elevation, though this is still under debate.

Caveats

The Biggert-Waters Act is one whose impacts are beginning to be felt across the U.S., and there are currently bills proposing to delay or modify the act and its community impacts.

Regardless of how NFIP changes, BW-12 generally implies that it is advisable for communities to redress lower-elevation homes sooner, which is wise regardless of evolving NFIP policy.

Accomplishments

Estimating the houses mitigated, and those remaining to be mitigated, is challenging due to older/uncertain records, and multiple stakeholders who report within different boundaries.

Generally, it is estimated that there are at least **285** houses remaining requiring elevation. Including mitigations in-process as of 2014, the City can report:

- **132** Home Elevations; FCD separately reports 42 for the City & its UGA
- **47** Acquisitions; FCD separately reports 25 for the City & its UGA
- Maintaining a CRS rating of 5 which equates to a 25% Flood Insurance Discount for all city policy holders.

Snoqualmie has been working with the King County Flood Control District (FCD) on activities that would mitigate flood and BW-12 impacts, including pursuing grants to fund mitigation, providing technical assistance, and maintaining (or increasing) the City's CRS level which provides policyholder discounts. The FCD has pursued home elevations in areas of slow moving flood waters that not subject to geomorphic hazard. In general, the City would pursue acquisitions of substantially damaged properties and properties along the riverfront; the City has widely pursued and will continue to pursue elevations depending on changing CRS requirements and FEMA grant qualifications. Based on non-engineering stamped assessments, the FCD has loosely identified housing elevations at the 100-year flood event level, which can help the City prioritize properties in subsequent elevation activities, based on voluntary participation, as houses at the lowest elevations will ultimately face the highest costs.

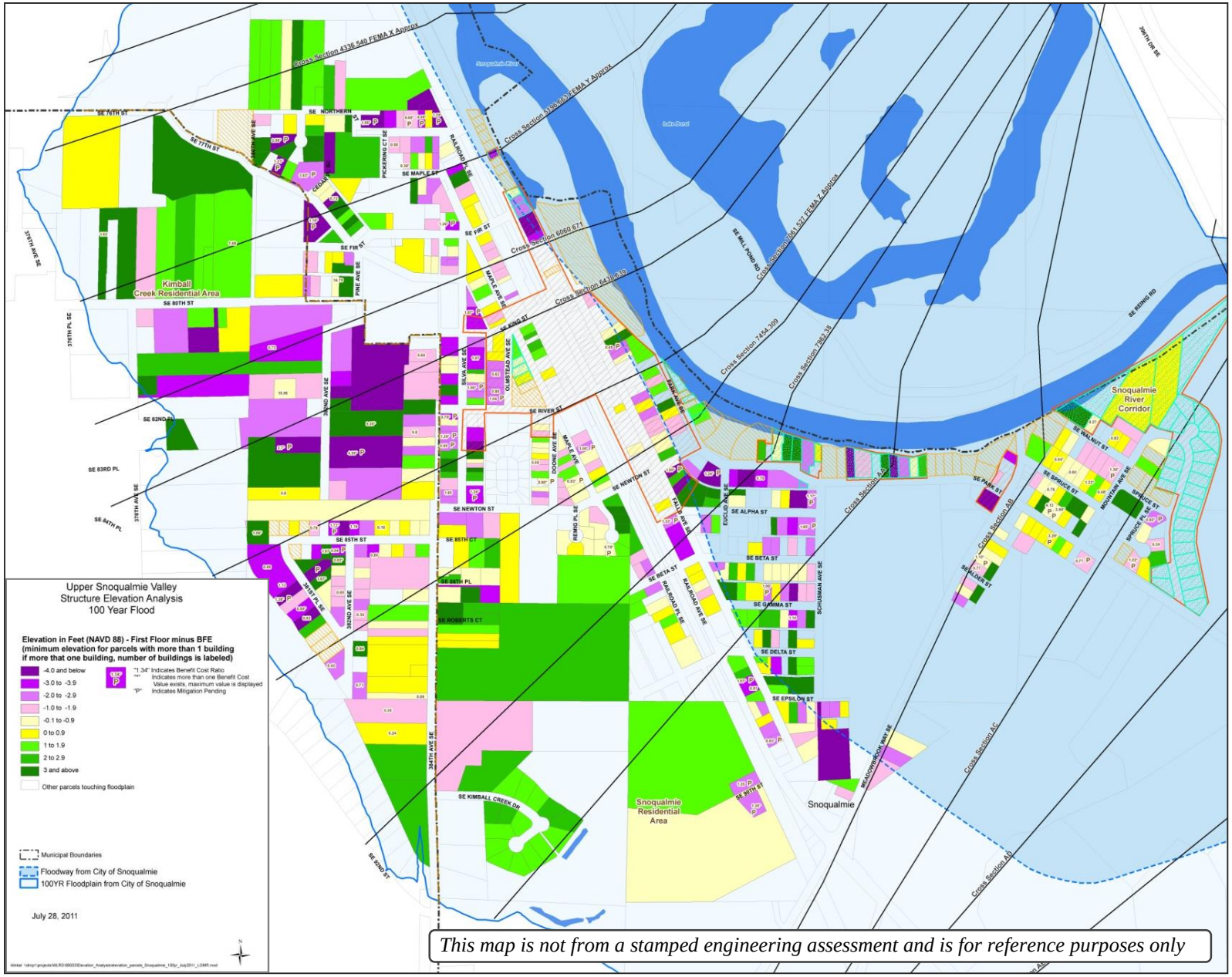


Figure 4.3 King County 100 Year Flood, Elevation Analysis, City of Snoqualmie & UGA Floodplain

G. AFFORDABLE HOUSING

Providing adequate housing for all economic segments of the community requires the establishment and preservation of a range of housing types, sizes and prices to suit different incomes and types of households. Typically the market provides very well for those in the middle and upper income brackets. People in low-income brackets often have a more difficult time finding housing.

Affordable Housing is housing (including utilities) which costs 30% or less of a household's monthly income. While this is a general term that may include housing affordable to a wide range of income levels,[7] the term "Affordable Housing" is commonly used to refer to various brackets of housing affordable to households earning 80 percent or less of the King County Area Median Income (AMI). King County Countywide Planning Policies establish a methodology for cities to plan for target percentages of total housing stock affordable to different income brackets. These targets apply to all jurisdictions in King County, and are based on Census Bureau estimates of Countywide housing needs. Accordingly, the City of Snoqualmie has adopted these affordability targets. It should be noted, however, that beyond their representation of a countywide need, these targets also likely represent a local need for additional housing affordable to persons of lower incomes.

The 2007 –2011 American Community Survey 5-Year Estimate predicted that 40.6% of owner-occupied households and 35.4% of rental households paid more than thirty percent of their household income for housing costs in the City. This percentage is an increase over the 23.2% of owner-occupied households and identical 35.4% rental households noted in the 2000 Census. By comparison, in all of King County 37.2% of rental households and 40.9% of owner-occupied households paid more than thirty percent of their household income for housing costs. This does not mean that this proportion of the population falls into low-AMI brackets, but instead that this proportion of the population is bearing a heavier housing cost burden than desirable, possibly due to high mortgage costs. Local housing needs are discussed further in Section G.3, Demographics & Senior Housing.

Affordable vs. Low-Income Housing

The words "affordable" and "low income" are often used interchangeably in regards to housing, however Low-Income housing is technically defined and quantified by HUD and housing subsidy programs. In addition, HUD and PSRC may utilize different definitions, as HUDs subsidized housing standard is different than what is affordable on the market.

American Community Survey

The American Community Survey (ACS), begun in 2005, is similar to the previous "long form," used in the 2000 Census. The US Census long form was issued to select households to sample extended population data in a single year, such as employment, income and housing status.

Rather than providing a 1-year "snapshot" of an area as was done with the old long form, the 1-year, 3-year and 5-year ACS estimates average data collection over their representative years. Unfortunately, areas with populations under 20,000 can only access the 5-year average ACS data.

While ACS is useful for providing continuous demographic profiles for larger and slow-growing areas, ACS data is not as accurate for small & fast growing communities, as data may change at a faster rate than the average 5-year period for which ACS reports. However, it is still one of the more reliable sources for data reporting, and warrants consideration.

Definition of Terms

- Area Median Income: Annual household income for the Seattle-Bellevue Metro Area published by HUD.[8]
- Household: One or more related or unrelated individuals occupying a housing unit.
- Very Low-Income: King County Households with an income between 0% to **30**% of the AMI.[9]
- Low-Income: King County Households with an income between 30% to **50**% of the AMI.
- Moderate Income: King County Households with an income between 50% to **80**% of the AMI.
- Middle Income: King County Households with an income between 81% to **120**% of the AMI.

[7] Affordable Housing defined on pg 8. King County, "King County Comprehensive Plan 2012, Technical Appendix B: Housing," September, 2012, www.kingcounty.gov/property/permits/codes/growth/CompPlan/2012Adopted.aspx , accessed April 26, 2013. Note: there are differences in how affordable housing is calculated in rental housing and ownership housing.

[8] HUD: U.S. Department of Housing &Urban Development. AMI from King County, "King County Comprehensive Plan 2012," pg 8, IBID.

[9] CPPS note Housing Income definitions provided in Appendix 4, pg 55; King County, "King County Countywide Planning Policies, November 2012," Amended December 3, 2012, www.kingcounty.gov/property/permits/codes/growth/GMPC/ProposedCPPs.aspx , accessed April 26, 2013.

G.1 AFFORDABLE HOUSING STOCK

Countywide affordable housing targets, which the City has adopted locally, can be translated to net unit goals of current and future projected housing units. The following tables incorporate available data sources to estimate the number of For-Sale housing units provided within each AMI bracket. Following, these totals are compared to King County affordable housing targets.

Table 4.9
KING COUNTY AFFORDABLE HOUSING GOALS & HUD HOUSEHOLD INCOME

Income Level	AMI %	County Target: Total Housing Stock Percentages	2011 HUD Income Levels for Avg. Size Household
Very Low	0% – 30%	12%	$0 – $21,890
Low	30% – 50%	12%	$21,891 – $36,490
Moderate	50% – 80%	16%	$36,491 – $53,960[10]

Table 4.10
OVERALL FOR-SALE HOUSING STOCK, BY AMI AFFORDABILITY LEVEL

Income Level	AMI %	Housing Price Range	Units in Newer Areas	% in this Area	Units in Historic Area	% in this Area	Total	As a %
Very Low	**0% – 30%**	**$99,699 & Under**	19	1%	5	1%	**24**	1%
Low	**30% – 50%**	**$99,700 – $166,199**	31	1%	71	13%	**102**	3%
Moderate	**50% – 80%**	**$166,200 – $265,999**	209	7%	373	67%	**582**	16%
Middle Income	**80% – 120%**	**$266,000 – $399,999**	1,212	39%	96	17%	**1,308**	35%
Over Median	**120% – 180%**	**$400,000 – $599,999**	1,324	42%	12	2%	**1,336**	36%
High	**Over 180%**	**Over $600,000**	357	11%	0	0%	**357**	10%
		Total:	**3,152**		**557**		**3,709**	

Table 4.11 FOR-SALE SINGLE FAMILY/DUPLEX/TRIPLEX ONLY, BY AMI

Income Level	AMI %	Housing Price Range	Units in Newer Areas	% in this Area	Units in Historic Area	% in this Area	Total	As a %
Very Low	**0% – 30%**	**$99,699 & Under**	0	0%	5	1%	**5**	0%
Low	**30% – 50%**	**$99,700 – $166,199**	0	0%	71	13%	**71**	2%
Moderate	**50% – 80%**	**$166,200 – $265,999**	6	0%	357	66%	**363**	11%
Middle Income	**80% – 120%**	**$266,000 – $399,999**	1,028	38%	95	18%	**1,123**	35%
Over Median	**120% – 180%**	**$400,000 – $599,999**	1,322	49%	12	2%	**1,334**	41%
High	**Over 180%**	**Over $600,000**	357	13%	0	0%	**357**	11%
		Total:	**2,713**		**540**		**3,253**	

Table 4.12 FOR-SALE COTTAGE/CONDO/TOWNHOMES ONLY, BY AMI

Income Level	AMI %	Housing Price Range	Units in Newer Areas	% in this Area	Units in Historic Area	% in this Area	Total	As a %
Very Low	**0% – 30%**	**$99,699 & Under**	19	4%	0	0%	**19**	4%
Low	**30% – 50%**	**$99,700 – $166,199**	31	7%	0	0%	**31**	7%
Moderate	**50% – 80%**	**$166,200 – $265,999**	219	47%	16	84%	**219**	48%
Middle Income	**80% – 120%**	**$266,000 – $399,999**	184	42%	1	11%	**185**	40%
Over Median	**120% – 180%**	**$400,000 – $599,999**	0	0%	2	5%	**2**	0%
High	**Over 180%**	**Over $600,000**	0	0%	0	0%	**0**	0%
		Total:	**437**		**456**		**456**	

Values assumed sales prices would be 15% higher than assessed values land + improvements, based on 2012 & 2013 city sales reports.

[10] King County, "King County Comprehensive Plan …," IBID; pg 12 for HUD levels. Average HH is 2.4 persons. 80% AMI uses capped level.

Rentals, Group Quarters, Financially-Assisted, Emergency and Transitional Housing

Table 4.13
RENTAL LIMITS BY AMI AFFORDABILITY

Income Level	AMI %	Housing Rental Range
Very Low	0% – 30%	$499 & Under
Low	30% – 50%	$500 – $849
Moderate	50% – 80%	$850 – $1,370
Middle Income	80% – 120%	$1,370 – $1,999
Over Median	120% – 180%	$2,000 & Over

Generally not tabulated in the affordable unit counts are rental units. This is partially due to the fact that rental unit rates in the City are largely unknown. A majority of multifamily complexes in the City are small and dispersed, extending the time for individual data collection; the larger multifamily complexes, including the Echo Ridge Apartments and future Woodlands Apartments, have or will have average rents exceeding the rental limits listed at right. The other reason for not tabulating rental rates is the over 150 unidentified stand-alone housing units that are potentially rented out and not currently identified in the City (See Section E. Housing Stock Inventory & Analysis). Without a reliable source to identify these units, they are difficult to incorporate systemically, and attempts to do so may lead to double-counting. As the method for inventorying affordable units improves, the City may choose to update its housing inventory with rental unit counts and report on affordable units in the housing inventory. Future units with rents set at affordable levels are included in assessing future housing projections.

One exception in rental tabulation is the 30-unit Pickering Ct. rental complex, to which King County Housing Authority provides subsidies. Pickering Court provides 9 three-bedroom units, 17 two-bedrooms, and four 1-bedroom units, with vouchers that either require below 80% or below 30% of the Area Median Income. Besides Pickering Ct., there are no other financially-assisted or emergency housing options in the City. In 2012 the Friends of Youth opened an emergency overnight shelter with beds for up to 6 short-term residents to seve local homeless young adults, but this operation did not renew its temporary licensing. The US 2010 census also reports no person living within senior assisted housing or any form of group quarters in the City of Snoqualmie

In King County in 2009, "36% of households headed by a single mother with children under five years of age were poor. More than one in seven children (14.6 %) under five years of age lived in a poor household." -- King County Comprehensive Plan 2012, Technical Appendix B: Housing," pg. 37

G.2 AFFORDABLE HOUSING TARGETS

The below table illustrates the King County Affordable Housing Target percentages as applied to 2010 Census and 2032 estimated housing unit counts.

Table 4.14
SNOQUALMIE AFFORDABLE HOUSING TARGETS, BY AMI

Income Level	% of King County AMI	Affordable Housing Target %[11] *(of housing stock)*	2010 Census Household Total	Affordable Housing Target HHs (households)	2032 Estimated Housing Count	2032 Affordable Housing Target HHs
Very Low	0% – 30%	12%	3,761	451 HHs	5,887*	728 HHs
Low	30% – 50%	12%		451 HHs		728 HHs
Moderate	50% – 80%	16%		602 HHs		971 HHs
			Affordable HH Target Total	1,504 Households		2,428 Households

** City Buildable Lands analysis indicates that a household gain of approximately 2,126 units will be achieved by 2032. Current counts are based on 2010 Census & Office of Financial Management reports of 3,761 units. Note, this is different than the report on occupied housing units (units with people living in them), last reported at 3,547.*

[11] DPER, "2012 King County Countywide Planning Policies, "Appendix 4: Housing Technical Appendix, pg 55, November 2012; Amended December 3,2012 www.kingcounty.gov/property/permits/codes/growth/GMPC/CPPs.aspx

The below tables compare King County Affordable Housing Target percentages (applied to 2010 Census and 2032 estimated housing unit counts) to current and future known households falling within AMI target brackets. The results illustrate the current and predicted future gap between the level and types of affordable housing currently provided in the City, and what the City policies would like to see offered within the municipality.

Table 4.15
SNOQUALMIE AFFORDABLE HOUSING TARGETS, ESTIMATED 2010 GAP

Income Level	% of King County AMI	HH Target % by AMI	2010 Census HH Total	Affordable HHs Target	Current HHS in Targets, For-Sale	Current HHS in Targets, For-Rent	Current HHs by AMI %	Affordable HHs Target, Remaining Gap
Very Low	**0% – 30%**	12%	**3,761**	451 HHs	24	0	1%	427 HHs
Low	**30% – 50%**	12%		451 HHs	102	0	3%	349 HHs
Moderate	**50% – 80%**	16%		602 HHs	582	30*	16%	0 HHs
			Affordable HH Target Total	**1,504 Households**			**Current Affordable HH Total Gap**	**776 Households**

** Pickering Ct. for-rent housing; subsidized housing only going to qualifying households either below 80% or 30% of AMI. See Table 4.10 for qualifying affordable units.*

Table 4.16*
SNOQUALMIE AFFORDABLE HOUSING TARGETS, ESTIMATED 2032 GAP

Income Level	% of King County AMI	HH Target % by AMI	2032 HH Estimate	Affordable HHs Target	Current HHs in Target, For-Sale	Current HHS in Target, For-Rent	Future HHs in Target, For-Rent	Future est. HH by AMI %	Future Affordable HHs Target, Gap
Very Low	**0% – 30%**	12%	**5,887**	706 HHs	24	0	0	0%	682 HHs
Low	**30% – 50%**	12%		706 HHs	102	0	0	2%	604 HHs
Moderate	**50% – 80%**	16%		942 HHs	582	30**	120***	14%	210 HHs
			Affordable HH Target Total	**2,355 HHs**			**Future Affordable HH Total Gap**		**1,497 HHs**

**Land Use Table 7.6 reports a 2,126 unit gain projected in the twenty year planning period; tassumption 26 notes this is based on a 2010 housing unit count. As such, affordable housing projectionsalsouse the 2010 census. See Section 4.E. Housing Stock Inventory & analysis for the current housing unit count, analysis and assumptions.*
*** Pickering Ct. for-rent housing; subsidized housing only goes to qualifying households either below 80% or 30% of AMI.*
**** This assumes 120 affordable rental housing units required for development under SRII will be developed at the 60% AMI level.*

Overall, after current and projected low income rental housing is accounted for, approximately 1,332 additional for-sale and for-rent households are needed in the various Very Low, Low and Moderate Income tiers, beyond what is already provided in the City or will be provided in the near future.

Other Statistics Influencing Affordability

The US Census 2007-2011 ACS 5-year estimates on Housing Characteristics indicate the City has low vacancy and overcrowding rates:

- The homeowner vacancy rate is 0.9%;
- The rental vacancy rate is 3.6%;
- Only 1.6% of units were reported with 1.01-1.5 Occupants Per Room;
- No units were reported with more than 1.51 Occupants Per Room.

Affordability: Other Factors

There are other aspects of affordable housing that impact city policy and program decisions. One concern is ensuring that low-cost housing intended for low-income households is obtained by those with qualifying low incomes. Another concern is retaining affordability over time, as low-cost housing may quickly appreciate to higher prices; many funders require affordability retention for ~50 years. Lastly, household size affects housing costs (ie. number of bedrooms). While current targets do not address household size save for urging unit diversity, future analysis may address this concern.

G.3 DEMOGRAPHICS & SENIOR HOUSING

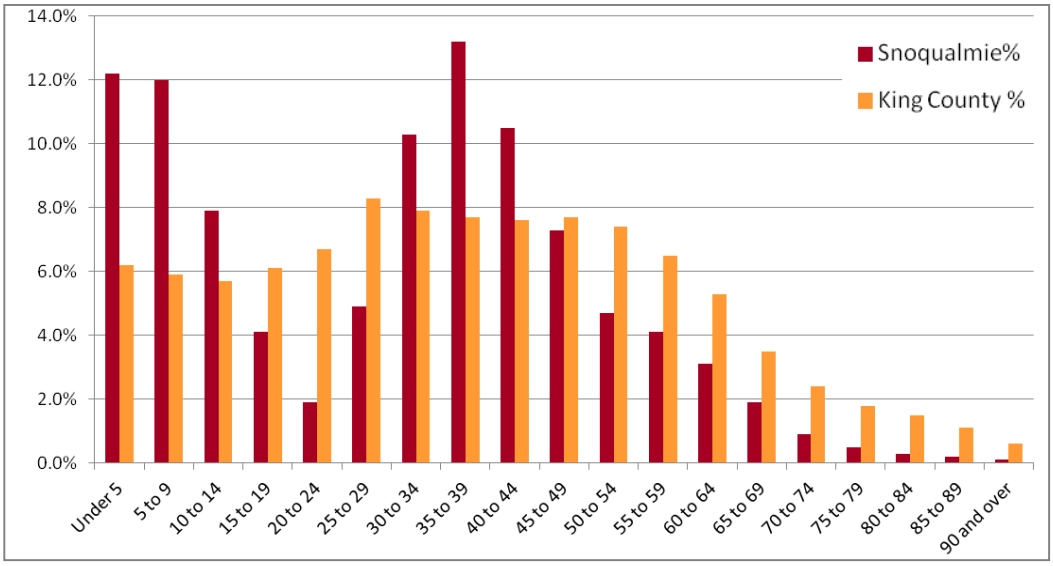
As part of the Comprehensive Plan update, the Planning Commission requested information on persons with disabilities and Low-Income Seniors, the need to plan for housing for these population segments, and its relation to affordable housing needs.

According to Census reports, 19% of the US population was living with a disability, and 12% of the population had a severe disability in 2010.[12] The frequency of disability increases with age, a trend noted both nationally and locally. In 2009, approximately 9.3% of non-institutionalized King County residents had some type of disability, but among those over 64 years, disability levels jump to 36%, and 9% with a self-care disability.[13] In addition to increased disability concerns, seniors also often faced decreasing incomes, increasing the senior population in various low-income tiers. Nationwide, from May 2011 to August, 2012, the U.S. Census Bureau reported that 33% of the 2.1 million people participating in Public Housing or the Section 8 rental subsidy programs were elderly (with and without disabilities).[14] In King County, elderly households make up 28% of Section 8 participants.[15]

> *"The significant number of elderly households and persons with some level of disability indicates an increasing need to have housing that is accessible to those whose mobility, sight, or hearing is impaired. Universally-designed housing, whether single or multi-family, can provide the flexibility to accommodate the changing needs of aging adults."*
>
> *– King County Comprehensive Plan, Housing Technical Appendix pg.31*

The increased presence of seniors changes demand for different housing types and affordability levels. Approximately 48% of senior King County households are single person households, and half of all seniors in 2009 earned an annual income of $43,500 or less, contrasting the 2009 median King County income of $68,400. Approximately 41% of King County senior households had incomes of less than $35,000 per year (50-60% AMI), and although seniors sometimes do not face mortgage payments, they still face property taxes, utilities, home maintenance costs, not to mention increasing health care needs. In King County, the greatest 2010 percentage growth was those aged 65 to 74. Accounting for aging baby boomers (those born 1945 to 1964) and increased average lifespan, King County may grow by 200,000 seniors in the next fifteen to twenty years, possibly doubling the senior population cohort.[16]

Figure 4.4: Age Cohorts by Percent, Snoqualmie & King County 2010



[12] US Census, "Americans with Disabilities: 2010," Table 1, www.census.gov/hhes/www/disability/sipp/disable10.html, accessed 9/20/12.

[13] King County, "King County Comprehensive Plan 2012, Technical Appendix B: Housing," September, 2012, IBID

[14] U.S. Department of Housing and Urban Development (HUD), "Resident Characteristics Report," hudapps.hud.gov/public/picj2ee/Mtcsrcr?category=rcr_units&download=false&count=0&sorttable=table1, accessed September 25, 2012.

[15] Ibid, HUD, "Resident Characteristics Report."

[16] King County Department of Community and Human Services, "King County Comprehensive Plan 2012, Executive Recommended Draft: Technical Appendix B: Housing," March 1, 2012, www.kingcounty.gov/property/permits/codes/growth/CompPlan/2012_ExecRec.aspx, accessed on September 27, 2012, page 26-27.

In comparison to King County, Snoqualmie does not have as large senior population at present. As can be seen in Figure 4.2, King County has a population swell in age groups 25 to 60 that will age and dispense some of that population into older cohorts. In comparison, Snoqualmie has a distinct concentration of youth aged 1-9, as well as a proportionately larger share of adults aged 30 to 45. However, over the next twenty years all cohorts currently aged 40+ will progress towards a senior phase of life, some in good health and some needing varying degrees of assistance to carry out daily tasks.

Although the City is unable at this time to do a proper population age cohort progression, it can reasonably be assumed that without additional housing unit types, not all those aging in Snoqualmie will be able to continue residing in Snoqualmie. Currently, 7% of the population is over age 60, and another 13% is age 40 or over, and will hence age to 60+ in the 20-year trajectory of this plan. While these percentages will shift due to in-migration, out-migration and mortality, these figures provide a sense of the potential aging population in coming years.

The provision of assisted-living housing units would help support continued residence of an older population, as would smaller square-footage houses for couples looking to downsize after children have moved out. Currently, for the first population, those requiring assisted senior living have the options of Red Oak or the Mt. Si Transitional Health Center in North Bend, the only known senior-assisted housing facilities in the Valley; the closest assisted-living facilities beyond these are in Issaquah. One tool that may be helpful to address disabilities for in the senior population is to support Universal Design in future housing programs (*see right*), increasing the functionality of housing units for occupants over time.

Universal Design

In PSRC Vision 2040, cities are encouraged to support Universal Design, or "Designing products to be usable by all people to the greatest extent possible – regardless of special needs or age –without requiring adaptation or specialized design."

Examples of Universal Design include housing units with at least one no-step entrance; ground floor bedrooms; wheelchair-friendly floor plans; lever-handles; and wheelchair-accessible light switches and surfaces. Requiring a Universal Design option in housing developments increases the potential for construction of independent senior-friendly units.

Although the City has not set a numeric goal for senior housing, as that would require market analysis at the time of development, the topic is addressed under the Innovative Mixed Use planned land use in the Snoqualmie Hills West Planning area. For more information, see Land Use element 7, *Section H.3 Mixed Use* and *Section E.1 Snoqualmie Hills East & West Planning Area*.

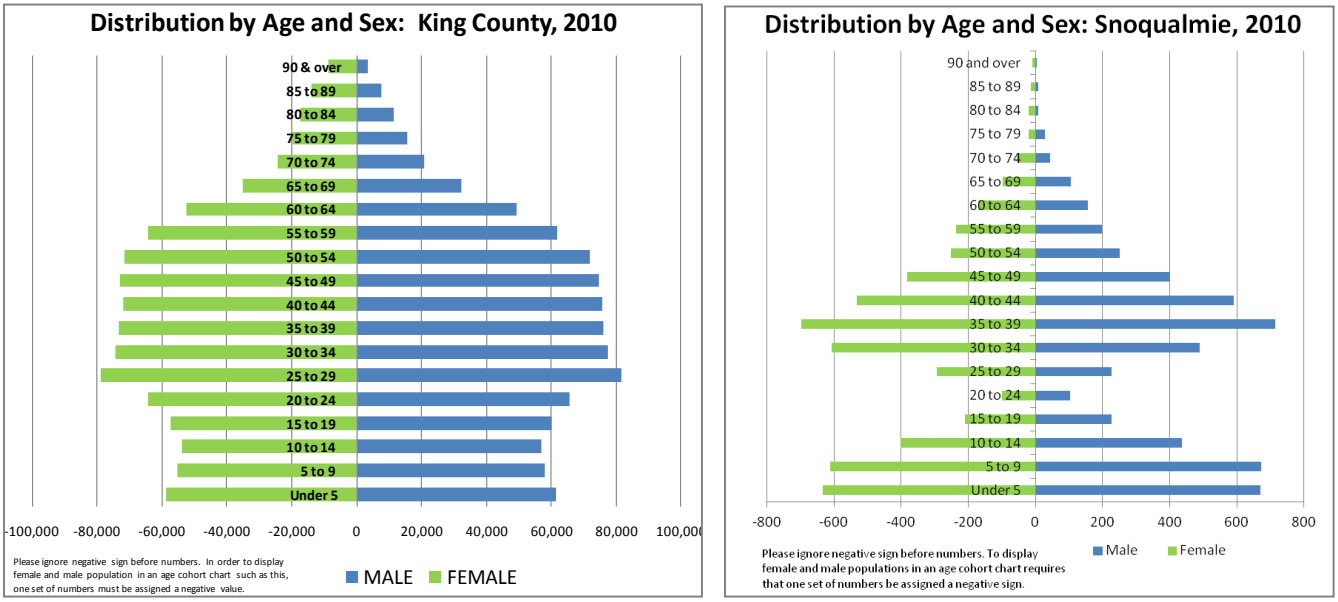


Figure 4.5: King County & Snoqualmie Population Cohorts, 2010

G.4 TRANSPORTATION: A COMPONENT OF HOUSING COST

See Transportation Element 8 for more on Transportation.

The Countywide Planning Policies, Appendix 4: Housing Technical Appendix, states that a housing supply inventory should include, "Transportation costs as a component of overall cost burden for housing within the community…". Although no methodology is suggested for transportation expense accounting, commuting can influence both housing location decisions as well as the expenses incurred by inhabitants, depending on the proximity to one's place of employment and mode of travel selected.

One of the most consistent assessments of travel costs by car comes from the American Automobile Association (AAA), which quoted that the average cost of car ownership in 2013 was $9,122 per year, or about $760 per month, based on 15,000 miles of annual driving.[17] The assessment quoted approximate annual spending of $2,150 in gas; $1,000 in insurance; $900 on tires & maintenance, $600 on licensing, registration & taxes; $850 financing charges; and about $3,500 depreciation. Aside from depreciation, this means that an average of $5,550 direct annual cost would fall on a majority of households with an individual working in Redmond, Kirkland or Seattle, or sometimes close to double these costs if two or more members of a household were commuting to jobs outside the City.

Commuting accounts for a large portion the 15,000 annual miles assessed by the AAA report, with the remainder likely made by school drop-offs, chores using a car, and social outings. Investigating the implication of commuting costs directly helps provide context for many concerns addressed throughout the comprehensive plan including jobs-housing balance; household cost-burden and the need for affordable housing; the impact of commuting miles in greenhouse gas generation; and the need to support alternative travel modes including carpooling, bicycling and transit-use.

Table 4.17
CAR COMMUTE, COST ESTIMATES FOR EXAMPLE EMPLOYMENT CENTERS

Example Job Location[18]	**Avg. Commute Time** (One Way)	**Avg. Distance in Miles**	**Miles for 5 Days/ Wk** (Both Ways)	**Miles for 50 Wks/ Year**	**Hours in Traffic/ Year**	**% of 15,000 Miles**	**Annual Commute** (Direct Cost)	**Monthly Direct Cost**	**Monthly Direct Cost, Doubled**
Issaquah	15 min.	12.4	124	6,200	125 hours	41.3%	$2,294.41	$191.20	$382.40
Kirkland	36 min.	26.0	260	13,000	300 hours	86.7%	$4,810.87	$400.91	$801.81
Redmond	37 min.	27.3	273	13,650	308 hours	91.0%	$5,051.41	$420.95	$841.90
Seattle, Downtown	35 min.	25.8	258	12,900	292 hours	86.0%	$4,773.86	$397.82	$795.64
Snoqualmie Downtown	8 min.	0.5	5	250	67 hours	1.7%	$92.52	$7.71	$15.42
Snoqualmie Ridge	13 min.	3.2	32	1,600	108 hours	10.7%	$592.11	$49.34	$98.68

As can be seen by the above table, an individual commuting to a job outside the City by car could be facing between $200 – $400 in average monthly average costs, or up to $850 in direct average monthly commuting costs if each adult of two-parent household has a job 27 miles away or more. These costs make it difficult for low and very-low income households to afford a car, contributing an excessive additional burden to housing costs. Also of note are the productive hours lost to commutes; using an 8-hour work day, the commutes to locations outside the City show an equivalent loss of between 16 – 40 work days a year.

Table 4.18

[17] American Automobile Association (AAA), "Your Driving Costs: How Much Are You Really Paying to Drive?," 2013 Edition, http://newsroom.aaa.com/wp-content/uploads/2013/04/YourDrivingCosts2013.pdf , accessed May 13, 2013, Pg. 5.

[18] Example Job Location used City Hall addresses to estimate housing burdens; average commutes added 5 min each for parking time; 50 weeks/yr selected for 2 weeks average vacation & sick time.

CAR COMMUTE COSTS, AS PERCENTAGE OF AMI MONTHLY IMCOME

Income Level	AMI %	2011 HUD Income Levels for Avg. Size Household	Range of Monthly Income	$400 Commute as a % of Monthly Income	$800 Commute as a % of Monthly Income
Very Low	0% – 30%	$0 – $21,890	$0 – $1,824	Up to 22%	Up to 44%
Low	30% – 50%	$21,891 – $36,490	$1,825 – $3,041	13% – 22%	26% – 44%
Moderate	50% – 80%	$36,491 – $53,960[19]	$3,042 – $4,497	9% – 13%	18% – 26%

There are multiple ways to help ease the cost burdens of auto commuting on households, including:

- Supporting Location-Efficient Mortgages for future Employees;
- Supporting Affordable Housing development in the City;
- Promoting the use of alternative travel modes;
- Policies to support Jobs-Housing Balance within the City.

Location Efficient Mortgage

"A program that allows consumers to qualify for certain mortgages based on potential transportation cost savings by living in a denser urban area with transit service, or closer to places of employment."-*PSRC Vision 2040, G-6*

At present a majority of known affordable housing supply is located within easy walking distance of Metro transit routes, notably Route 215 that runs along the Parkway and SR 202, though transit times can be run over an hour one-way to Seattle itself, with the last departures from the City leaving at 8 am, and the last return trip leaving at 7 pm, with no weekend service. Those without a car who work weekend or later shifts would be forced to find alternative travel modes; the study, *A Heavy Load: the Combined Housing and Transportation Burdens of Working Families*[20] provides extended review of the topic should further context be desired.

G.5 HOUSING PRESERVATION & IMPROVEMENT

In the coming years, supporting housing maintenance and preservation will be of increasing importance for much of the City's housing. The oldest homes in Snoqualmie Ridge are now a decade old, and many homes in Historic Snoqualmie are several decades old; some are over a hundred years in age (at present, at least 232 houses in the City are at least 75 years old). Some houses may fall into states of extreme disrepair, making renovation economically prohibitive, but overall it is prudent to support the maintenance of older houses with good character.

Single-Family House in Historic Snoqualmie

Connecting with groups and providing education to support maintenance will help to keep housing stock in good condition, for both homeowners and those renting housing units. The City may support more extensive programs to redress housing preservation; certainly, regular monitoring of the City housing stock will be key to detecting problems early, and spurring research to address unique issues. In Historic Snoqualmie, floodway and floodplain regulations notably limit new improvements to existing homes, but these neighborhoods continue to provide not only distinctive community character, but an attractive and affordable housing option for younger families, which have become a dominant segment of the City population.

[19] King County, "King County Comprehensive Plan …," IBID; pg 12 for HUD levels. Average HH is 2.4 persons. 80% AMI uses capped level.

[20] Center for Housing Policy, October 2006 publication, http://www.cnt.org/repository/heavy_load_10_06.pdf , accessed May 14, 2013.

G.6 HISTORY OF AFFORDABLE HOUSING

Element 5. Community Character details the City's general historical development.

Like most communities in the Puget Sound region, Snoqualmie has experienced increasing demand for affordable housing in recent years. The local employment base in the last three decades has shifted from a timber and natural resource-based economy to one dominated by office employment with sometimes higher incomes, though a significant need still exists for affordable housing, particularly to accommodate increasing lower-paying jobs. At the same time as demand has increased, housing supply in Snoqualmie has shifted substantially toward larger and more expensive homes.

In 2000, the median gross rent for renter-occupied housing units in Historic Snoqualmie was $813, whereas today's median monthly rent for the City is listed $1,629. In 2000, the average owner-occupied housing unit in the City and Historic downtown was $172,900, and the average Snoqualmie Ridge home sale price was $315,914; today, the listed median home value for the City is $468,400. For regional comparison, the median gross rent in King County was $758 in 2000 and is $1,060 today, and the median owner-occupied housing unit was valued at $236,900, and today is listed at $402,300.[21] This means rent in the City has increased by 100%; the median home price has increased 170%; the average Snoqualmie Ride home price has increased 48%, while King County rent has increased 40% and home prices have increased 69%. Although some of the rental and sale price increases in the City can be attributed to inflation, and the fact that new houses are more expensive, a large part of the price increases come also with increased size and housing markets targeted by private developers.

In the last twenty years, Snoqualmie has striven to support affordable housing needs, primarily effected through affordable housing conditions within larger, mixed-use projects such as Snoqualmie Ridge I & II. This provided an important balance as large mixed use projects tend to generate lower-wage positions, thereby increasing local affordable housing needs. The Mixed Use Final Plan (SRI MUFP) for Snoqualmie Ridge (I) originally had multiple affordable housing provisions, including a requirement that 10% (or 200 units) of the total number of homes be affordable to households below 80% King County AMI.[22] There were other provisions at higher AMI levels but, after construction commenced, the City determined that the market would naturally meet the requirements at higher AMI levels. As such, the City renegotiated, retaining the 200 units required at or below 80% AMI, but then releasing other requirements in exchange for a donation of land and infrastructure on which Habitat for Humanity could construct 50 homes affordable at 50% AMI or below. As part of the renegotiation, the City also received a 10-acre site adjacent to the Habitat for Humanity site off Orchard Ave. which it could make available to Habitat or another affordable housing provider; this will likely provide 25 units at some point in the future, though the site has geographic constraints and may yield fewer units.

In planning for future affordable housing, Snoqualmie Ridge I & II provides some interesting insights. For instance, aiming for the below 80%, and below 60% AMI brackets would better target diverse market needs. Also, requiring smaller housing square footages would better maintain long-term affordability. Lastly, developers should be required meet their affordable housing requirements in more dispersed pockets throughout overall project development (rather than saving affordable housing until the end), which would likely alleviate some concerns over concentrated affordable housing developments in the future.

The Snoqualmie Ridge II Mixed Use Final Plan (approved in 2004) also requires certain levels of affordable housing. MUFP Attachment G requires a minimum of 278 affordable housing "**credits**" be provided, with a unit affordable at the 80% level counting as 1 credit, and units priced at 60% or below receiving 1.5 credits. Since 2006 Snoqualmie Ridge II has provided 96 for-sale units affordable to households earning 80% AMI,[23] meeting 96 of the total 278 affordable total housing credits. The remaining 182 credits are expected to be met with development of parcel S-20 rental units, which could be met with either 122+ 60% AMI units, or a mix of 60% & 80% AMI units for the remaining credit requirements.

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[21] US Census, 2007-2011 American Community Survey 5-year Estimates for the City of Snoqualmie and for King County, WA.

[22] Originally the Snoqualmie Ridge (I) MUFP Affordable Housing Action Plan required that 30% of the total number of homes, or 600 units total, be affordable to three income categories: 10% (200 units) for households below 80% of King County AMI; another 10% for households between 80% and 99% AMI; and 10% affordable for households between 100% and 120% AMI. When the City determined that the market would naturally provide housing in the higher income categories and the greater need was for housing below 50% and 80% AMI, the city renegotiated the housing plan to forego the reporting, monitoring and marketing of units above 80% AMI in exchange for other provisions. Though the developer still had to build the actual above-80% AMI units themselves, the reduced monitoring and reporting expenses were considered a viable exchange.

[23] See parcels N1, N2 & S1-A in the June 6, 2006 and August 2006 staff reports. Another set of affordable units on Parcel S-16, were removed from the final plans for their credits to be developed elsewhere.

Similarly, the Mixed Use Final Plan approval for Kimball Creek Village required 15% (40 units) of all homes be affordable to households with incomes below 80% AMI.

Both affordable housing demand, and the associated need for affordable housing programs and solutions, are much larger than the City alone can address. Overall, affordable housing is a countywide and regional issue, necessitating that the City coordinate its efforts with adjacent cities; King County; housing non-profits; appropriate state and federal agencies. In addition, the private sector must be included in the planning and implementation of any strategies for the preservation and development of affordable housing.

Tools

There are many tools available that different stakeholders may use to support affordable housing. For instance, the Puget Sound Regional Council's (PSRC) *Housing Innovations Program Housing Toolkit*[24] presents a range of strategies, noting whether they best apply to single family development, multifamily, ownership housing, rental, market rate p, and subsidized projects. Other programs that have been recommended for consideration at various times have included:

- Working with major employes to develop employer-assisted housing programs;
- Working with public housing agencies to receive technical assistance;
- Working with local banks and Credit Unions to investigate allocating community reinvestment funds to support new and rehabilitated affordable housing, or other housing that helps meet Comprehensive Plan goals;
- Promoting small unit housing such as for accessory dwelling units via homeowner permitting assistance, waivers of some remodeling requirements, and allowing administrative flexibility in review and design;
- Educating landlords about low-income housing programs;
- Providing public education on first-time homebuyer and sweat equity programs; and
- Providing public education on budgeting in housing choices.

Different programs may be more appropriate in different situations. Affordable housing groups or the above PSRC toolkit may help discern which tool is most appropriate at any given time.

H. RESIDENTIAL OWNERS ASSOCIATIONS (ROA)

A Homeowner or Residential Owner Associations (HOA/ROA) is a corporation or membership association, regulated by internal bylaws and governing documents, established for the purpose of managing lots in a residential subdivision.[25] A community association defined as a form of Planned Unit or Common Interest Development, ROAs have: mandatory membership upon home purchase within ROA boundaries; established governing documents and bylaws; and mandatory economic charges levied on owners for association maintenance. In exchange, the association manages common areas, manages the joint property interests of the owners, and provides community services for members. [26] Typically private developers maintain control of Board voting rights until financial and legal ties to organization responsibilities have been dissolved, usually after selling off a specified number of lots. In the case of the Snoqualmie Ridge ROA, this is when 90% of the total number of units have been sold off to family homebuyers; or by December 31, 2017; or as the developer independently decides to do so.[27]

The Snoqualmie Ridge ROA, established in 1997, covers the housing built in Snoqualmie Ridge Phase I & Phase II. There are presently approximately 3,300 houses on 2,100 acres within the SR ROA.

There's more than one ROA in the City, though the largest is the Snoqualmie Ridge ROA, which operates by fairly standard norms such as maintaining a body of Covenants, Conditions and Restrictions (CCRs) to which residents are expected to adhere. The CCRs, various policies and design guidelines, help to maintain a desired aesthetic which usually attracts the initial purchase of the homebuyer, but can sometimes also cause confusion and even contention over

[24] See Puget Sound Regional Council, "Housing Innovations Program," *http://www.psrc.org/growth/hip/*, accessed February 26, 2014.

[25] RCW 64.38.010 Homeowners' Associations: Definitions.

[26] Community Associations Institute (CAI), "An Introduction to Community Association Living," (2006), pg. 4. www.caionline.org/events/boardmembers/Documents/IntroToCALiving.pdf, accessed May 14, 2013.

[27] Decaration of Covernancts, Conditions and Restrictions for Snoqualmie Ridge Residential Property, http://www.ridgeroa.com/view/governing-documents.aspx# , accessed May 14,2013

what external housing modifications are permitted and warranted post-purchase, with variations on the degree of requirements relating to home appearance:

> *Some CIDs have very general guidelines that allow people to express a certain degree of individuality (landscaping, for example, or exterior paint colors) as long as their homes are well-kept. Other CIDs have CC&Rs that prohibit residents from choosing their own paint trim colors, planting their own shrubs in their front lawn, or even hanging a non-approved color of curtains or blinds in their windows –Homeowner Association Basics*[28]

Current and future ROAs will be important partners for all City initiatives, including programs and policies addressing community character, the environment, economic vitality, social cohesion and –of course – housing.

I. HOUSING DIVERSITY AND JOBS/HOUSING BALANCE

Demographic trends in the US show an increase in single-person households, single-parent families and shared households of two or more unrelated persons. These demographic shifts influence housing demand, as do continued decreases in household size, shifting demand for different housing types, and a fluctuating economy that impacts housing affordability on multiple levels.

Live-Work balance is supported by assessing the income levels of jobs within the city, and assessing whether those incomes allow for purchases from the existing housing stock. See Economic Development Element 3, *Section H.*, for more analysis on Jobs-Housing balance.

Married couples with young children are currently the largest percentage of the City population, however many service jobs for those young families are sometimes met with younger, single-person households. In addition, Snoqualmie's demographic profile will change as the population grows and matures, with youth sometimes seeking more inexpensive housing units with a smaller square footage.

Diversity in the City population should be matched by a diversity of housing choices. To respond to changes in the community's population, demographic make-up, lifestyle preferences and the cost of housing, Snoqualmie will need to provide opportunities for a mix of housing types within the City that include less land-consumptive alternatives to large lot single-family homes. Diverse housing types and sizes in appropriate locations also supports the jobs/housing balance goals articulated under the Community Character, and Land Use elements, as it allows employees of multiple income levels to live in the community, along with older people and those typically on fixed incomes.Section K of this chapter describes some housing types that provide smaller rental and owner-occupied housing units which are more affordable and provide a greater choice of living arrangements. The Land Use Element provides further analysis on jobs-housing balance.

Workforce Housing

"Workforce housing refers to housing that is affordable to households with at least one full-time worker in which earned incomes are too high to qualify for significant federal housing subsidies, and which — given local housing market conditions — have difficulty affording market prices for homes or apartments in the communities where the residents work." – *PSRC Vision 2040, pg. 67*

J. HOUSING AND THE ENVIRONMENT

There are many ways that housing location, construction, maintenance, occupancy and deconstruction intersect with the environment. Reducing the environmental impacts of residential areas requires a host of techniques including code updates, education & outreach and partnerships.

It is a fact that the residential built environment shapes the natural environment. In 2007 there were 128 million residential units in the U.S., though approximately 7.2 million new units were built between 2005 and 2009 alone. In 2006, residential units accounted for approximately 36% of

The typical suburban lawn consumes 10,000 gallons of water on top of normal levels of rain; lawns are now the largest irrigated crop in America, three times the size of US corn crops.[29]

[28] Thomson Reuters FindLaw, "Homeowner Association Basics," © 2013, realestate.findlaw.com/owning-a-home/homeowners-association-basics.html, accessed May 14, 2013.

total US energy consumption;[29] about 10% of US water consumption is from inside residential units (100 gallons per person per day), and almost 30% used outside for landscaping.[30] When houses are built or torn down they also pose environmental impacts, with construction and demolition (C&D) debris from buildings accounting for 26% of annual non-industrial U.S. waste, or approximately 160 million tons per year. All this also comes with climate impacts; residential buildings account for 20% of the nation's total carbon dioxide emissions.[31]

Many housing topics that impact the environment also impact public health. On average, Americans spend 90% of their time indoors, where indoor levels of pollutants may be two - five times higher than outdoors, contributing to asthma attacks. Many homes built before 1978 have lead-based paint, which can be passed on to people via paint chips, dust and soil deposits. For both toxic metals and indoor air quality, youth are of special concern; asthma is the most common serious chronic childhood disease, and the 3rd-most common cause of hospitalizing children under age 15.

Many housing topics that impact the environment also impact the pocketbook. The average U.S. household faces $2000 a year in energy bills: 50% on space heating, 27% on appliances, 19% on water heating and 4% air conditioning.[32] Washingtonians spends closer to $1,400,[33] due to lower power rates from supplements of hydro power sources. Although Washington state energy codes updates through 2010-2012 are expected to increase energy efficiency by 10% to 20%,[34] residential energy gains since code renovations began in the mid-1980s have thus far been slim. Some studies suggest that energy efficiency gains are offset by increases in housing size, increased air conditioning use, and the proliferate use of appliances, computers and entertainment systems.[35] Department of Commerce research indicates that, "Adjusted for inflation, the average Washington household spent 26% more for home energy in 2010 than in 1998."

Much of Snoqualmie's housing was built before 2010 -2012 code updates. Furthermore, homes built before 1980 did not require insulation, increasing their heating and cooling costs. This can be harder on renters, where lack of ownership disallows improvements, sometimes increasing costs for those with fewer resources to address them.

Some green housing improvements are driven by developers responding to the real estate market. In 2011, the National Association of Home Builders reported that most builders expected the average single-family home size to shrink 10%, and increased use of green materials such as, "low-E windows; engineered wood beams, joists or tresses; water-efficient features like dual-flush toilets and low-flow faucets; and EnergyStar rating for the whole house by 2015."[36] In King County, this trend was being reported on in 2010 when data showed that certified green houses "…carried a $92,175 price premium, were 12.3% smaller and continued to sell in less time than a non-certified home."[37] Certified green homes in King County maintained a consistent 25% share of the market in 2011.[38] The market is beginning to support environmentally-sensitive housing more, though with green homes retaining higher resale value and providing benefits to occupants with higher efficiencies, incentivizing additional green housing features will support the long-term value of Snoqualmie's housing stock.

There are many options to help support green housing in the City, including limited code changes, education and partnerships. While the state has led by example with energy code improvements, the ability of the City to follow suit is

[29] U.S. EPA, "Buildings and the Environment: A Statistical Summary," revised April 22, 2009 www.epa.gov/greenbuilding/pubs/gbstats.pdf, accessed May 14, 2013.

[30] Milesi, Cristina et al., "Mapping and Modeling the Biogeochemical Cycling of Turf Grasses in the United States," Environmental Management, 36:3 (2005), 426-438. Study reviewed in NASA Earth Observatory, earthobservatory.nasa.gov/Features/Lawn/lawn2.php, accessed May 14, 2013

[31] U.S. EPA, "Buildings and the Environment…" Ibid.

[32] U.S. EPA, "Buildings and the Environment: …" Ibid.

[33] Department of Commerce (DOC), "2013 Biennial Energy Report with Indicators," (2013), www.commerce.wa.gov/Documents/2013-biennial-energy-report.pdf, accessed May 4, 2013 pg 68

[34] Northwest Energy Efficiency Alliance, "NEEA Success Story: Codes," http://neea.org/docs/success-stories/neea-success-story-codes.pdf?sfvrsn=6, accessed May 4, 2013.

[35] DOC, "2013 Biennial Energy Report…," ibid. pg 67

[36] National Association of Home Builders (NAHB), "NAHB Study: New Homes in 2015 will be Smaller, Greener and More Casual," NAHB newsroom, May 7, 2011. www.nahb.org/news_details.aspx?newsID=12244, accessed May 4, 2013.

[37] Ben Kaufman, "Green Homes Outselling the Rest of the Market," Daily Journal of Commerce, February 18, 2010. www.djc.com/news/en/12015059.html accessed May 4, 2013.

[38] Ben Kaufman, "GreenWorks January 2012 ECert Report Update," KW Greenworks, greenworksrealty.com/e-cert_report/e-cert_report.php?t=e-cert_report, accessed May 4, 2013.

limited, as the City cannot mandate single family building requirements that go beyond state code without overcoming a long list of regulatory challenges. However, the City can provide assistance to support green housing developments through assessing landscaping and zoning codes by either relaxing codes that may restrict the ability to add green features, such as moderate height exceptions for PV solar panels, or placing some additional requirements, such as requiring all irrigation systems to include rain sensors, or requiring housing demolition activities to recycle debris as able. These small changes can go a long way when multiplied by a few hundred or few thousands homes. Beyond in-city renovations, the City can help promote good housing maintenance to maximize efficiencies and minimize utility costs through education, and by working with partners such as local utilities, housing associations, non-profits and coordinated regional groups on green building issues.

By law, ROAs must allow for the installation of solar energy panels, though they may require panels to conform to the slope of the roof. The Snoqualmie Ridge ROA CCRs allows solar panels so long as they meet this requirement, and proceed through the modifications committee. See RCW 64.38.055.

K. HOUSING TYPOLOGY

To achieve housing density and affordability goals for the City, developments will likely have to consider a wide range of housing types. The following housing types are some examples of less land-consumptive alternatives to large lot single-family homes.

- **Accessory Dwelling Units (ADUs) & "Carriage" Units.** These units are added living spaces that are structurally distinct from the main structure. Also known as "grandmother apartments," these can be achieved by adding an apartment over the garage, or a free standing cottage behind a larger home on the same lot. ADUs can double the number of units per acre,[39] providing many advantages to the renter without the full burden of the land cost.
- **Adaptive Reuse.** Old commercial buildings no longer fit for commercial use can be altered to accommodate housing.[40] Housing projects seeking environmental certification can usually benefit from the ability to renovate existing structures.
- **Co-housing.** In a co-housing situation, residents own their own home but share a yard and common dining and entertainment facilities with their neighbors. Co-housing offers a lifestyle option welcomed by many for its social benefits, and can reduce costs due to smaller individual lot sizes and living units.
- **Cottage Housing & Garden Apartments.** Cottage housing usually provides 4-12 units of detached single family homes, often less than 1,000 square feet but rarely larger than 1,200 square feet apiece, surrounding a common landscaped courtyard. Typically provided with condominium ownership, cottages create a single-family product at densities more typical to multifamily arrangements.[41]
- **Duplex & Multi-plex units.** Duplexes are generally two-unit buildings vertically divided with separate external entrances for each unit. Multiplexes consist of multiple, smaller attached dwellings such as double-duplexes, quadraplexes, maisonettes, etc..[42] Multiplex buildings can be designed to appear as large single family homes while still exposing each owner to a smaller portion of the base land cost. As such, they can assist in providing more affordable housing, while fitting well into single family neighborhoods as infill or new subdivision sections.
- **Live/Work units.** Live/work units usually have a second-story residential floor above a non-residential first floor, with a direct internal connection between the living space and ground-floor office or work space. The arrangement is ideal for self-employed individuals with limited work-space needs, such as attorneys, artists, hair stylists, real estate agents, accountants and so forth; they can also be provided with a light-industrial arrangement for welders, mechanics, and carpenters. Live/work units are a good transitional use between commercial and residential areas.

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[39] Definition partially adopted from Land-Based Classification Standards (LBCS) developed for the Federal Highway Administration (FHA). Posted by the American Planning Association (APA), 2010.

[40] The Housing Partnership, "The Right Size Home: Housing Innovation in Washington," supported by the Washington State Housing Finance Commission; 2005. http://www.mrsc.org/artdocmisc/M58RightSize.pdf

[41] IBID. The Housing Partnership.

[42] LBCS: Definition partially from LBCS for the FHA; Posted APA 2010. *http://www.planning.org/lbcs/standards/structure.htm*

- **"Mingles" Houses.** Mingles Houses are houses or apartments designed for two unrelated single people or groups of people living together, usually with two equal master bedrooms, each with a bath, but with shared kitchen, living, and dining spaces. This form of housing is particularly suitable for adults living together as roommates or for a single parent living with a grown child, and offers the economic advantage of a shared rent or mortgage.
- **Rowhouses & Townhouses.** Row and townhouses usually have three or more separate dwelling units divided vertically, with each unit accessed by separate entrances onto a front and rear yard.[43] When constructed properly, rowhouses can provide energy savings through reducing outdoor exposure of one wall to heating/cooling drains, while smaller yards per occupant leads to reduced base land and maintenance costs.
- **Second-story units above non-residential uses.** These are second-story apartments offered above street-level shops, offices or light-industrial uses, but differ from live/work units in that the residential floor does not directly access the commercial uses below. When commercial areas include residences, merchants can watch the streets by day while residents can watch them on the evenings and weekends. The result is a safer neighborhood throughout the week, while also providing more potential customers for local merchants.
- **Seniors and Disabled resident housing types.** Such housing includes single story homes, ground-floor apartment flats, boarding houses and assisted living facilities.
- **Small-Lot Detached/Single Family Homes.** A housing type well-suited for workforce housing, small lot single-family dwellings of 5,000 –7,000 square feet (sq ft) are an excellent way to foster affordable, neighborhood-style housing.[44] Small lot allowances stimulate smaller square footage units and more affordable homes; some cities have recorded minimum lot areas as low as 2,500 sq ft. While the historic 1940 lot area average was 3,000 sq ft, typical lots today average 7,000 –10,000 sq ft.[45]
- **Zero Lot Line Homes.** A Zero-Lot Line home is when at least one structural wall is built right on the property line. Although this unit type is falling towards disuse because of its overlap with other housing typologies, many land-use databases retain this description as independent homes can fall into this category.[46] Zero-lot line allowances can benefit housing designers by helping maximize open space, and flexibility in landscaping or indoor spatial arrangement. These benefits can also incur associated burdens, such as fewer buffers for noise and/or privacy.

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[43] IBID. (Definition partially from LBCS for the FHA; Posted APA 2010.

[44] Parker, Robert AICP. "Zoning Practice," Q&A following article "A National Survey of Development Standards and the Impact on Housing Affordability," March 2008. http://www.planning.org/zoningpractice/ask/2008/mar.htm

[45] Seattle **23.43.008 has the** 2,500 sq ft minimum; for additional code examples and historic small lot requirement, see: http://www.commerce.wa.gov/DesktopModules/CTEDPublications/CTEDPublicationsView.aspx?tabID=0&alias=CTED&lang=en&ItemID=1064&MId=944&wversion=Staging

[46] IBID. (Definition partially from LBCS for the FHA; Posted APA 2010. *http://www.planning.org/lbcs/standards/structure.htm)*

Community Character
Table of Contents

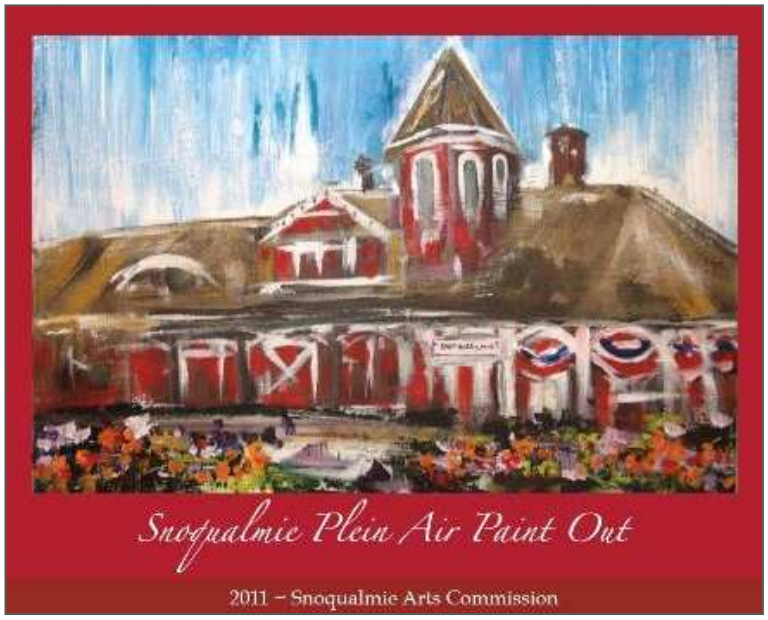
LIST OF FIGURES

A. INTRODUCTION

Community character refers to the 'flavor' of a place, and includes diverse elements such as local architecture, landscape, community activities and the demographic mix of people. Community character resources include both natural and man-made features that contribute to the City's overall livability and positive sense of place. Local heritage, scenic beauty, a natural atmosphere and traditional design are important aspects of Snoqualmie's character.

With the strong pressures of additional growth, Snoqualmie faces the potential to lose features and resources that have historically contributed to its character. In order to prevent the loss of this character to development that reflects "anywhere USA," these policies propose the preservation, protection and enhancement of existing community character resources and the integration of new development that reflects and builds upon the city's heritage, design and aesthetic.

Goal 2: ***Preserve, protect and enhance Snoqualmie's community character and assure future growth is sensitively integrated into the City through design and the protection of character-defining resources.***



2011 Plein Air Paint-Out Poster Winner

B. SNOQUALMIE'S CHARACTER

The City of Snoqualmie is set in an area with outstanding natural landscape and a unique history. Magnificent views, beautiful historic buildings and large areas of undeveloped forest and floodplain open space create a setting in Snoqualmie shared by few other Western Washington cities. The small town character of Snoqualmie is consistently cited as one of the most desirable aspects of living in the city, created by pedestrian sale and orientation, traditional design, identifiable neighborhoods and closeness to the natural environment. Social qualities are also important, such as the 'friendly atmosphere' and a strong sense of local self determination, with community cohesion fostered by social organizations such as neighborhood groups, churches, clubs, sports and recreation activities.

Due to its remoteness from the greater Seattle area, Snoqualmie was historically a self-sufficient community that could accommodate most of its citizens' and visitors' daily needs. With the completion of Interstate 90, Snoqualmie became more connected to, and dependent on, the Seattle metropolitan area for jobs, goods and services. A greater majority of the City's residents now commute to work, sometimes shopping and recreating in other areas. Without a healthy local economy, Snoqualmie could become a bedroom community, losing the small town atmosphere valued by local residents. As such, a healthy economy, strong community character, aesthetics anchored in a unique sense of place, and enhanced natural beauty must all be addressed to maintain the vibrancy of the City which so many locals have come to love.

C. SCENIC & NATURAL RESOURCES

Snoqualmie has a magnificent natural setting, with views of Mount Si, Rattlesnake Ridge, the Cascade Mountains and the Snoqualmie River corridor providing a striking community backdrop. In addition to these grand features, Snoqualmie Falls provides a spectacular 270 foot cascade that is iconic to the City. Snoqualmie Valley also has a rich agricultural history, featuring both remnant and active farm pastures, berry fields, woodlands and rural buildings alongside lush wetlands and stream corridors in the Snoqualmie River floodplain.

Mt. Si in Winter, from Mount Si Golf Course

One of the primary character-defining features of Snoqualmie is its relationship with the natural surroundings. Snoqualmie has close contact with natural processes as an urban island surrounded by forest, and in a floodplain at the edge of the Cascade Range. Wildlife is frequently seen in the City, utilizing the many sensitive and protected open space tracts for habitat corridors and foraging areas. Per the State Growth Management Act (GMA), Snoqualmie is within the region's Urban Growth Area. While promoting rural land use patterns in the City is not compatible with GMA urban growth goals, preserving natural features that contribute to Snoqualmie's unique character is wholly appropriate, such as public parks, significant mature trees, wetlands, rivers and natural viewsheds – all of which are key to the city's natural character.

The City's interconnectedness with nature provides some burdens as well as blessings; rainwater and mountain snowmelt entering the Snoqualmie River frequently subjects the city to damaging flooding, flowing through the City with few flood control measures. One of the ways that the City can reduce flood hazards is to decrease the volume and rate of storm water runoff reaching the river. Reducing storm water runoff and its associated pollutants is also one of the primary means to reduce downstream impacts to the threatened Chinook salmon, as well as other fish and wildlife. Sensitive design of buildings and public infrastructure can help minimize storm water and other impacts of development on the natural environment.

The upper Snoqualmie Valley's scenic beauty is perhaps the most important contributor to Snoqualmie's character and sense of place. Features such as the Falls, the Snoqualmie River, Kimball Creek, Mount Si, Rattlesnake Ridge and the Cascade mountain foothills are important tourist attractions that bolster the city's economic vitality.

Cooperating with other entities to identify, protect & enhance important viewsheds and corridors can help preserve scenic resources. Important city view corridors include:

- Mount Si from 384th Ave. SE north of Kimball Creek, & the wooded corridor along 384th Ave. SE.
- Mount Si from the Meadowbrook Way/SR 202 intersection & the wooded corridor on Meadowbrook Way SE.

Viewsheds and corridors along the main-stem Snoqualmie River:

- From the observation platform and public access areas at Snoqualmie Falls Park and Salish Lodge;
- From the SR 202 bridge;
- From the Meadowbrook bridge;
- Upstream to Mt. Si from the corner of Park Street and River Street.
- Borst Lake from access points along Mill Pond Road.

C.1 MOUNTAINS TO SOUND GREENWAY

Begun in 1990, the Mountains to Sound Greenway Trust works to conserve land in Western and Central Washington. The Greenway now connects approximately 1.4 million acres surrounding Interstate 90, including 900,000 publicly owned acres, and another 75,000 acres conserved in permanent private forest.

The City has long worked with other agencies to protect the scenic value of the I-90 corridor, furthering the vision of a regional mountains to sound greenway. In the 1970s the city acquired 70 acres along I-90 in the Rattlesnake Ridge Planning Area, entering into a long-term lease agreement with a commercial property developer to promote economic development at the time. Through participation with the Mountains to Sound Greenway, it became apparent that such uses could forever impact a significant forested promontory in the Greenway corridor. To preserve in perpetuity the unique viewpoint of the City-owned property in the Rattlesnake Ridge Planning Area, in 1999 the City of Snoqualmie teamed up with the Greenway and Trust for Public Land (TPL) to secure funds to permanently protect the land. Through generous funding from the Federal Forest Legacy Program, TPL purchased the leasehold interest to the 60-acre commercial property. The City then retained approximately 9 acres for a public park and water reservoir site and sold its fee interest in the remainder of the 70 city-owned acres to TPL for conveyance to the National Forest Service. This major acquisition protects a key site within the City and Greenway corridor as a spectacular open space resource for both Snoqualmie and the region.

C.2 CITY GATEWAYS

Gateway: an entrance corridor that heralds the approach of a new landscape so that it rewards the viewer with a sense of arrival and a positive image of the place.

– Michael Barette

Meadowbrook Bridge serves as a city gateway

Gateways are significant City locations that serve as entrances to the city, historic districts and Snoqualmie Falls. Protection and enhancement of gateways is important for preserving unique images for those traveling into and through the City, as they often present the first face and impression of a place. In Snoqualmie, gateways exist along certain road corridors coming into different parts of the town or at key intersections, as shown on Figure 5.1. Gateways may consist of specific areas of natural vegetation; landscaping architecture, public artwork; or topography that signifies an entrance to a new space. These gateways do not have to be the defined city limits, but are often more appropriate where a visual change in the developed setting takes place. Gateways differ from way finding signage, which is placed in strategic locations to aid travelers in navigating the City.

D. HISTORIC AND CULTURAL RESOURCES

"New ideas need old buildings."

— Jane Jacobs

Thoughtful management and preservation of historic and cultural resources benefits the local community and the region. Besides maintaining a connection to the past, they contribute to a community's character, diversity and aesthetic value, particularly in times of rapid change. Cultural resources also contribute to the local and regional economy by providing interesting places for visiting tourists. The GMA includes the following goal for historic preservation:

> *"Identify and encourage the preservation of lands, sites, structures that have historical or archeological significance." (RCW 36.70A.020 (13))*

Many federal, state and local agencies, including the King County Landmarks Commission and City of Snoqualmie, engage in programs to identify and evaluate heritage sites, and determine appropriate protection, preservation and restoration measures. Heritage sites can include buildings, districts, properties and landscape features of significance.

D.1 HISTORIC DISTRICTS

Snoqualmie Railroad Depot, est. 1890.

Snoqualmie has long understood the significance of its past, with several buildings remaining from its many years as a transportation crossroads, making history feel close at hand. The Historic Downtown's centerpiece, a restored 1890 Queen Anne-style railroad depot, was placed on the National Register of Historic Places in 1974, sparking interest in developing Historic Design Guidelines and a Historic Landmark District.

In the early 1990's the City embarked on a concerted effort to formally recognize and preserve the buildings and other unique features of the city's heritage. In February of 1992, the City adopted an ordinance establishing an overlay zone for historic areas of the City, including areas downtown along Railroad Avenue and separately in the Meadowbrook neighborhood, as shown in Section E. neighborhood maps.[1] The ordinances were established to help preserve and enhance the buildings and uses in these zones, and ensure that future nearby development is compatible with the historic structures.

In 1995, the City entered into an Interlocal Agreement with King County so that the County could help provide landmark designation and protection services. In addition to the historic overlay zones within the City, the presence of at least 20 contributing historic buildings in Snoqualmie's Downtown inspired designation of the Downtown Historic Commercial Landmark District in 1997. Buildings in both the Downtown Historic District overlay zone, as well as the Commercial Landmark District, are subject to specific design review. However, those buildings within the Landmark District may also apply for special historic funding programs; buildings in this area may choose to undergo the County design review process, and may be required to undergo County design review should funding be awarded.

Historic Landmark designation is different than being listed on the National and State Registers of Historical Places. Owners of resources listed on the National Register of Historic Places do not face additional restrictions or obligations in using, altering or disposing of their resources. Likewise, listing on the Washington Heritage Register, which automatically incorporates National Listings, is an honorary designation that does not alter property owner rights. In contrast, designated Landmark sites (which must be over 40 years old, meet specific criteria, and be considered in a public hearing) have identified "features of significance" which receive protection.

> *"Once a property is designated a King County Landmark, it is subject to specific design review procedures and preservation standards any time the owner considers making significant alterations to the features of significance or wishes to move or demolisth the building."* [2]

County Landmark Districts

As of 2013, other King County Historic Districts are in Vashon Island, Selleck, North Bend, Skykomish, a Fall City site and one near Redmond – seven total.

Snoqualmie Depot

The Snoqualmie Depot houses the Northwest Railway Museum, exhibiting on the construction, maintenance and operation of railroads from the 1870's to today. The Mueseum operates a passenger rail from Snoqualmie Falls to North Bend, allowing visitors to experience the thrill of a working railroad.

Design Review Board

Established in SMC 17.80, the design review board encourages development that is creative and harmonious with the natural and manmade environment, focused on non-residential historic development. The city Planning Commisison serves as the DRB.

[1] In municipal code, these are called the Downtown historic district overlay zone & the Meadowbrook historic district overlay zone.

[2] For more information on the Landmark Commission or King County Landmarks, see the King County Hitric Preservation stie, or www.kingcounty.gov/property/historic-preservation.aspx

Heritage resources in the community can be expanded and improved in the future. Public and private entities can help develop programs, improvements and community events to encourage awareness and appreciation of local heritage resources. The City can also encourage education and interpretation of lands, sites, features and structures that have natural, cultural, historic or archaeological significance.

Note: Appendix I provides the Snoqualmie Area Historic Sites Inventory, listing heritage sites that have been identified and researched to date, and that are included in the King County Historic Sites Inventory. Some sites have received landmark designation; others may be considered for future designation. Additional sites can be added to the heritage sites inventory; suggested additions to Snoqualmie Area Historic Sites list are also provided.

D.2 THE SNOQUALMIE TRIBE

The historic and contemporary presence of the Snoqualmie Tribe in the Valley has historic and cultural significance for the region. The Snoqualmie Indians were officially recognized by the Federal Government and given tribal status in 2000, and their presence grew in many centers of Valleywide planning. The City continues to work with the Snoqualmie Tribe, Snoqualmie Valley Historical Society, King County, and other cultural agencies to preserve and protect local Native American heritage sites.

The locations of many Native American graves are no longer precisely known and can be easily destroyed by new building development. The Snoqualmie Tribe will, if notified by a landowner or developer, investigate the unearthing of remains and arrange for their reburial at the Snoqualmie Tribal Cemetery in Fall City.

Native Americans working on the Hop Farm begun in 1882 on Meadowbrook Farm (Photo Courtesy of Mona Crowe)

E. NEIGHBORHOOD PROFILES

In order to better plan for the character and design issues of the City, Snoqualmie has been broken up into distinct neighborhoods. By establishing individual neighborhoods throughout the City, issues can be more readily identified and addressed through specific policies. These policies aim to improve the character of the neighborhoods through infrastructure improvements, design, and amenity construction. In addition to the specific neighborhood design districts, a reserved 202 Corridor Overlay section is included, in which design and transportation policies and strategies applying to the entire SR 202 corridor between Snoqualmie Falls and the North Bend City Limits will be addressed.

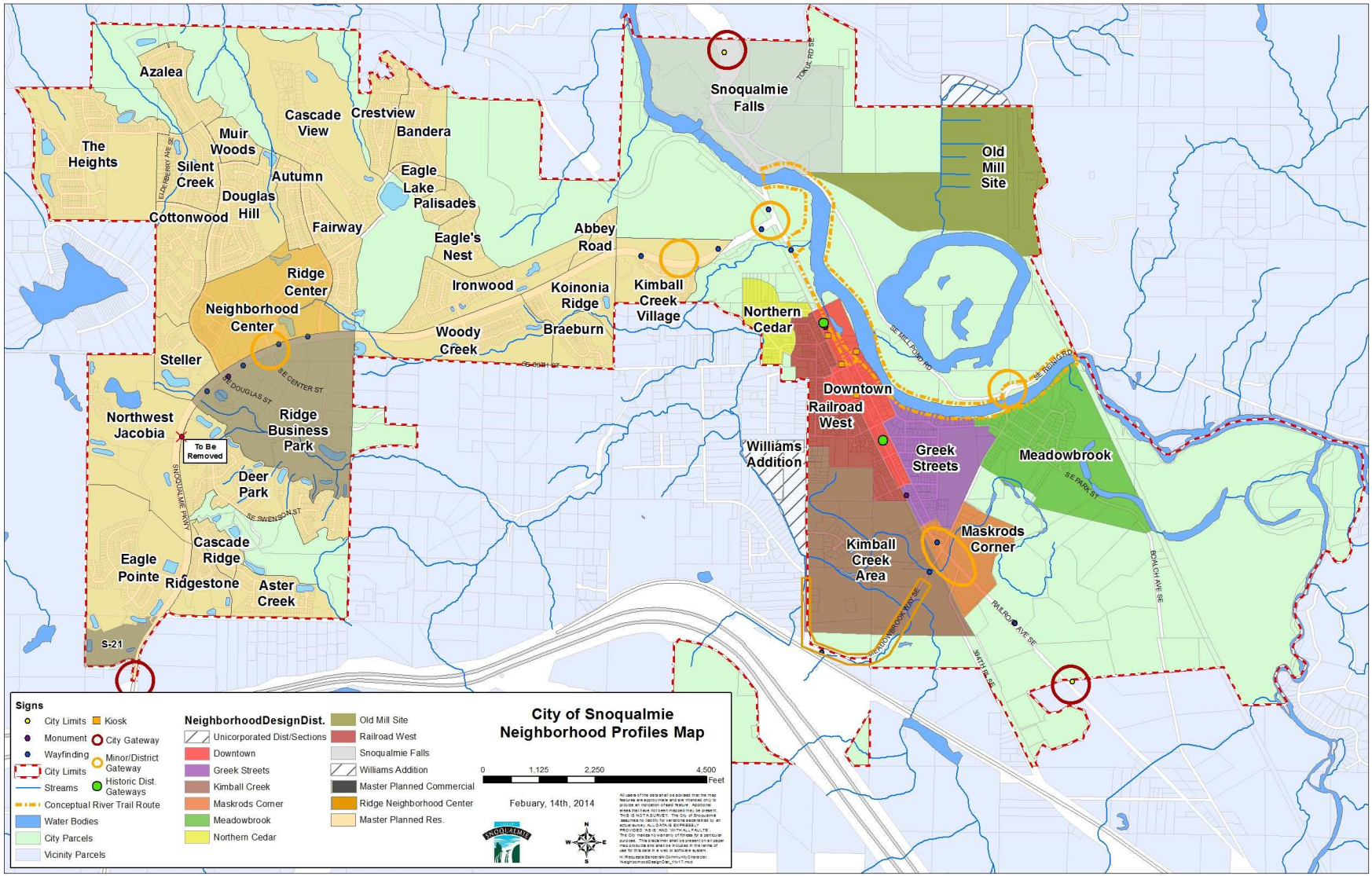


Figure 5.1 City Neighborhoods, Profile Boundaries & Gateways Map

E.1 DOWNTOWN

Centered along Railroad Avenue, downtown serves as the commercial center of the city. It is situated east of the Northern-Cedar and Railroad West neighborhoods, with the Snoqualmie River forming a natural northeast boundary. The railroad creates a physical boundary to the west, save for a triangular extension formed by SE King St. to the north, the eastern block of buildings along Olmstead Ave SE, and a southern stretch of buildings along SE River St., as this section relates more to downtown than the Railroad West neighborhood. The Greeks Street neighborhood forms the eastern and southern boundary along Park Street, Falls Avenue and Beta Street. This area's commercial use and significant structures define the neighborhood; many of the commercial buildings are concentrated along Railroad Avenue with some businesses spilling over to River Street, King Street and Falls Avenue.

History

Downtown Snoqualmie developed in the late 1800's as a transportation crossroads. The booming center to Valley activity with the construction of the Seattle, Lakeshore, and the Eastern Railroad Snoqualmie Depot in 1890, commercial development sprung up along Railroad Avenue in wood-framed buildings with gabled roofs and false fronts. There were general stores, hotels, taverns, the Methodist-Episcopal Church and the central Depot, though over time floods, fires and later development pressures took their toll on most original turn-of-the-century buildings. A later 1920's building boom occurred from Snoqualmie Mill's prosperity as well as increased auto travel on the Sunset Highway to Snoqualmie Pass, with brick and stucco structures of this era often replacing earlier false-front wooden buildings.

Character Defining Features

Downtown's long history has produced many historic buildings, most notably is the restored 1890 Queen Anne-style Snoqualmie Railroad Depot, listed on the National Register of Historic Places. Other prominent historic buildings include the Old City Hall, originally built in 1923 as the State Bank of Snoqualmie, and Reinig's Hardware Store built in 1909. Downtown has two primary parks, Sandy Cove Park and Railroad Park. The Millennium Grove is a new addition to Railroad Park, celebrating the turn of the 21st century and a new millennium. The Centennial Trail, a popular walking and bicycling trail, originates in Downtown.

Issues and Opportunities

Downtown is in the Historic Overlay Zone, which means all sites and structures within the zone must meet certain design standards and guidelines. Downtown has been an important commercial and retail center throughout Snoqualmie's history, and retains an attractive and walkable neighborhood character that helps draw both tourists and local residences to support its

Downtown

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Extend Centennial Trail through Downtown, and south to Meadowbrook.
- Increase parking capacity along Railroad Ave.
- Enhance and beautify the streetscape by adding pedestrian amenities such as public art, street trees, benches, sidewalks and pedestrian scale lighting.
- Design crosswalks with higher visibility using bulb-outs, street striping and pedestrian-activated electronic crossing lights to improve pedestrian safety.
- Strictly enforce the requirement for automobiles to yield to pedestrians at crosswalks
- Extend curbs into Maple and Olmstead to calm traffic, and install 45-angles parking on one side of Maple and Olmstead Ave.

Landscaping

- Enhance Sandy Cove Park so that it is more visible from King Street and Falls Avenue.

Buildings & Alleys

- Encourage continued retail/commercial development on Falls Ave. between King & River St, and encourage the use of Falls Ave. as a pedestrian friendly plaza.
- Continue the pattern of building street frontage along Railroad Avenue.

Other

- Consult the Downtown Master Plan for all planned developments.
- Support the development of a Main Street Program.

Old Oddfellows Hall building in historic colors

continued success. Numerous historic buildings exist in the downtown Historic Overlay Zone that could be restored to their original appearance to improve the prosperity and appearance of the community as a whole. For further guidance on this, refer to the Snoqualmie Historic Design Standards and Guidelines.

Falls Avenue, and the corner of Railroad and King Street, would make excellent locations for additional downtown development. Falls Avenue parallels Railroad Avenue and currently serves as the "back lot" for many businesses fronting Railroad, but this area could be developed into additional service-use storefronts fronting Falls, reducing the competition for valuable space along Railroad. The city wishes to sell the corner property on Railroad and King Street currently in public ownership, to facilitate additional development. A parking lot at the rear of the property could serve the future businesses and help define the Sandy Cove Park entrance, better linking it to Downtown and encouraging its use.

The new City Hall on River Street, as well as the existing Library building, helps establish this neighborhood as a civic core combining municipal and commercial services in one location. Streetscape and crosswalk improvements around City hall could unify the neighborhood, create a walkable central core, and encourage further service commercial development.

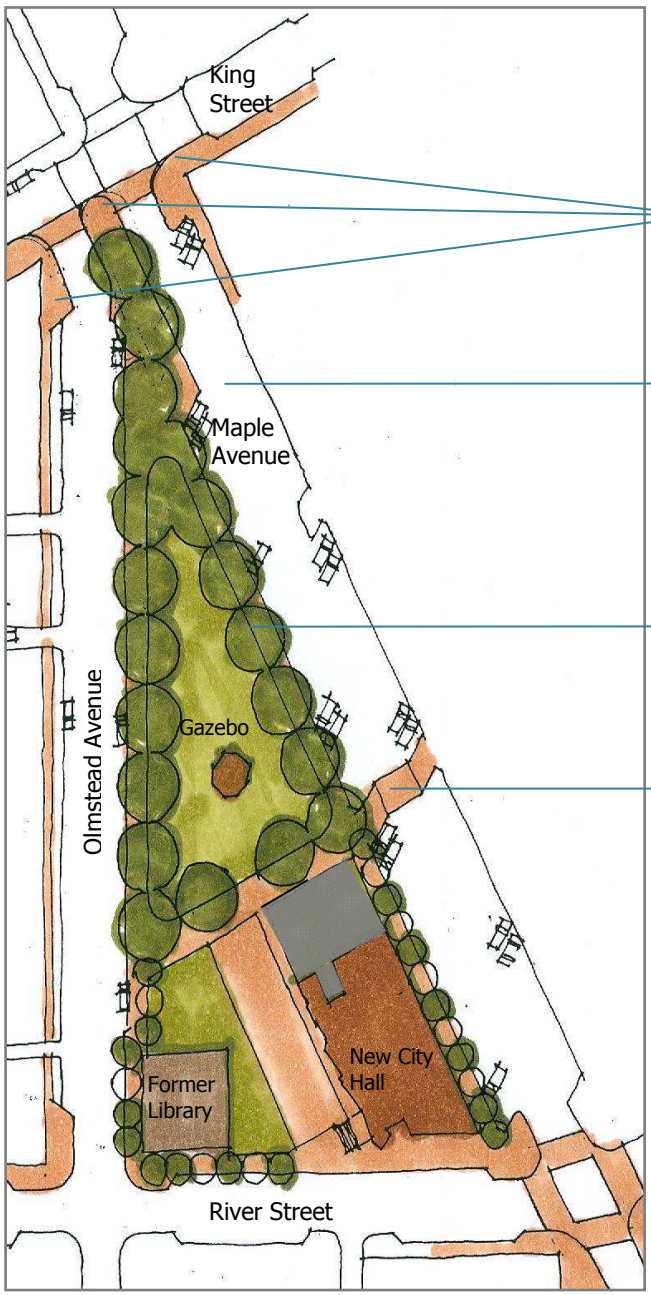
In addition to this Neighborhood Profile, the 2006 Downtown Master Plan and the Economic Development, Branding & Marketing Plan should be referenced for their multiple recommendations focused on Downtown Snoqualmie revitilation and support. Following are a few excerpted recommendations applying to future downtown development, and the idea of the Snoqualmie Town Commons Park.

Railroad Avenue at the beginning of the 20th Century
(Photo courtesy of the Snoqualmie Valley Historical Society)

Objective

"Retain and enhance Downtown Snoqualmie's unique character and heritage while increasing its viability as a tourist and commercial center of activity."

Railroad Avenue at the beginning of the 21st Century



DMP Recommendation Excerpt:

Snoqualmie Town Commons
(See DMP Figure 6.4)

Extend curbs into intersection to improve safety and calm traffic.

Reconfigure Maple Avenue to provide 45-degree angle front-in parking on the west or commercially developed side of the street and parallel parking on the residential side of the street.

Gradually convert residential uses towards a central commons park.

Create midblock crosswalk to accent relationship with rest of west side business district and proposed Snoqualmie Town Commons

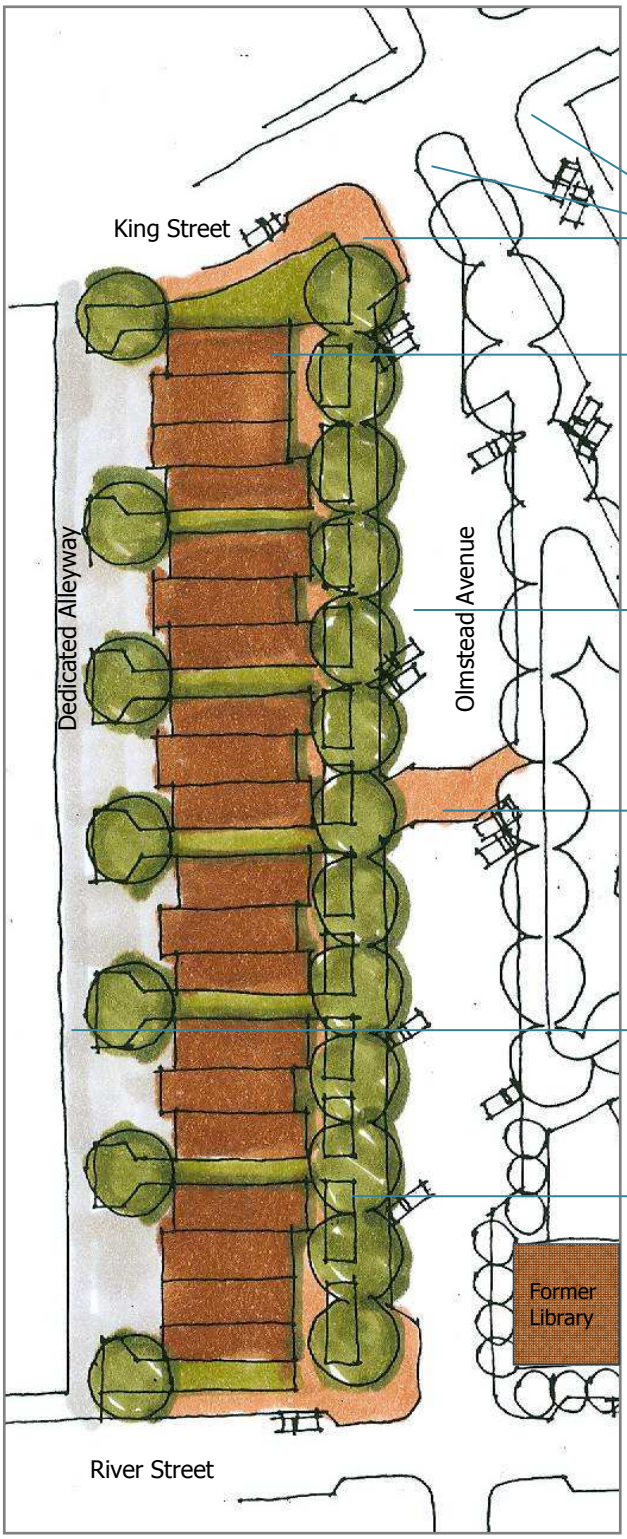
Figure 5.2 Downtown Master Plan, Excerpt 1

Both the the 2006 Downtown Master Plan and the Economic Development, Branding & Marketing Plan contain multiple recommendations for Downtown Snoqualmie. For instance, the Branding & Marketing Plan recommends:

- Placing utilities underground (recommendation #14)
- Adding mid-block crossings along Railroad (#16)
- Developing & construct new streetscape enhancements and public art displays (#19 &#20)

The Downtown Master Plan also recommends:

- Enhancing the King Street/Falls ave streetscape, extending it through downtown (#7.1 & 7.2)
- Incorporate job recommendations?



DMP Recommendation Excerpt:

Olmstead Avenue Design
(See DMP Figure 4.2)

Extend curbs into intersection to improve safety and calm traffic

Redevelop parcels for mixed-use townhouse or brownstone houses with ground floor retail, office or other pedestrian-oriented uses, with upper floor residential units.

Expand right-of-way in front of redeveloped retail to provide 45 degree angled on-street parking in lieu of off-street lots per on-street parking ordinance

Create midblock crosswalk to accent relationship with rest of west side business district and proposed Snoqualmie Town Commons

Improve existing alleyway for rear parking access to garages or carports under upper floor housing units

Plant street trees along Olmstead to compliment rest of west side business district

Figure 5.3 Downtown Master Plan, Excerpt 2

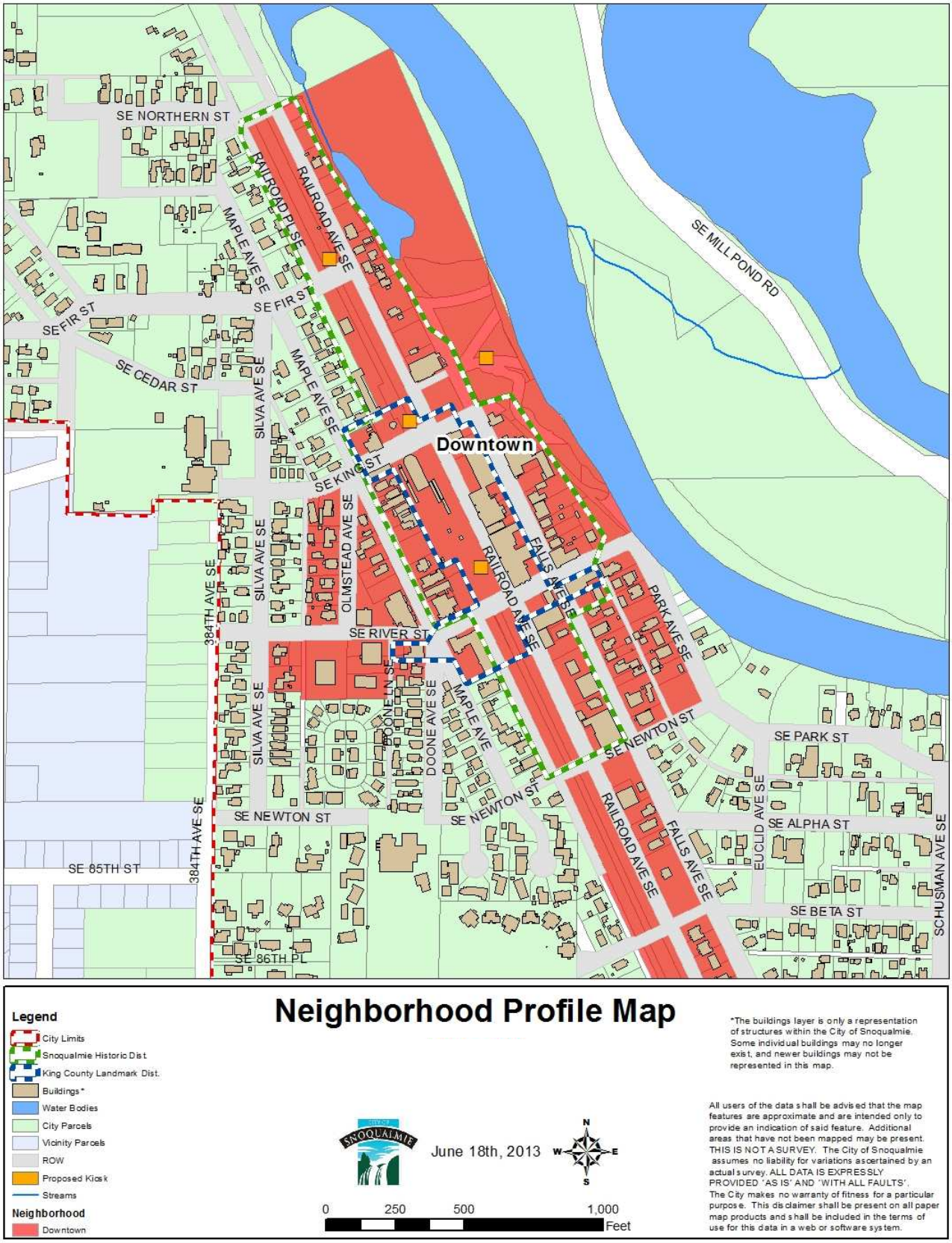
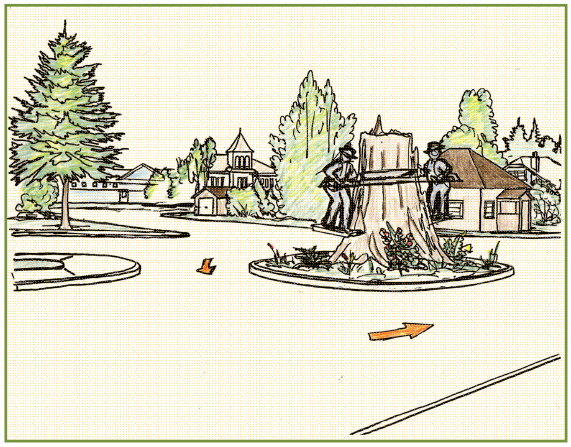


Figure 5.4 Downtown Neighborhood Profile Map



Potential traffic circle at King Street

E.2 RAILROAD WEST

Railroad West lies to the north of the Kimball Creek neighborhood where, as opposed to its southern neighbor, the housing layout changes to an internal orientation as opposed to facing 384th Street. In addition, the houses of this neighborhood are closer together and on smaller lots, with a consequential higher density. The neighborhood's eastern boundary is the back property line to the railroad tracks, save for a triangular section that relates more to the Downtown. For the most part, the back of these properties and the change of uses to private residential from commercial creates a distinct separation. The northern boundary includes the School District Administration office. No businesses are located north of the School District building, with the residences of this area associating well with each-other as a mix of larger homes and multifamily.

History

The district west of Railroad Avenue is part of the historic town of Snoqualmie, consisting primarily of single family residential homes that developed primarily between the 1910s and the forties and early fifties. Homes were originally a mixture of cottages and craftsman bungalows, with ranch-style homes starting to emerge as the end of the building boom. Lot line dimensions here are similar to the historic district, 30' wide by 120' long, although many homes were built on two of these lots. Generally wood was the primary material, with simple decoration and ornamentation, and houses averaging one to one and a half stories tall. amend

Railroad West

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Add sidewalks to Reinig Place and all of Newton Street.
- Upgrade and widen sidewalks where needed, without damaging significant trees.
- Complete Newton Street west from Doone Avenue to Silva Avenue.
- Increase pedestrian connectivity across River Street by additional crosswalks with different paving materials, colors or patterns, as well as bulb-outs when able.
- Consider landscaped traffic circles or other treatments at five-way intersections along Maple Avenue to improve traffic flow and create visual landmarks.

Landscaping

- Add street trees to Silva Street, Olmstead Avenue & Doone Avenue, and where needed to provide continuity on Maple Avenue, King Street & River Street, adjusting spacing and tree species selection as able to retain views.

Buildings & Alleys

- Require new development and redevelopment along River Street within commercial zoning to orient to the street with parking to the rear of the building.

Character Defining Features

As part of the original town, Railroad West has many historic homes and buildings, the most prominent of which is the School Administration building at King and Silva Street. Age has also provided the neighborhood with a number of large street trees and flowering shrubs that significantly add to the area's attractiveness, helping to amend the aesthetic impacts of house-raisings in terms of blank siding and uneven housing character.. The original town plat of historic Snoqualmie consists of two distinct street grids that meet at Maple Avenue; the two grids meet at an angle, forming three five-way intersections along Maple Avenue. The intersections are where River Street meets Maple Avenue and Doone Street; where King Street meets Maple Avenue and Olmstead Street; and where Fir Street meets Maple Avenue and Silva Avenue.

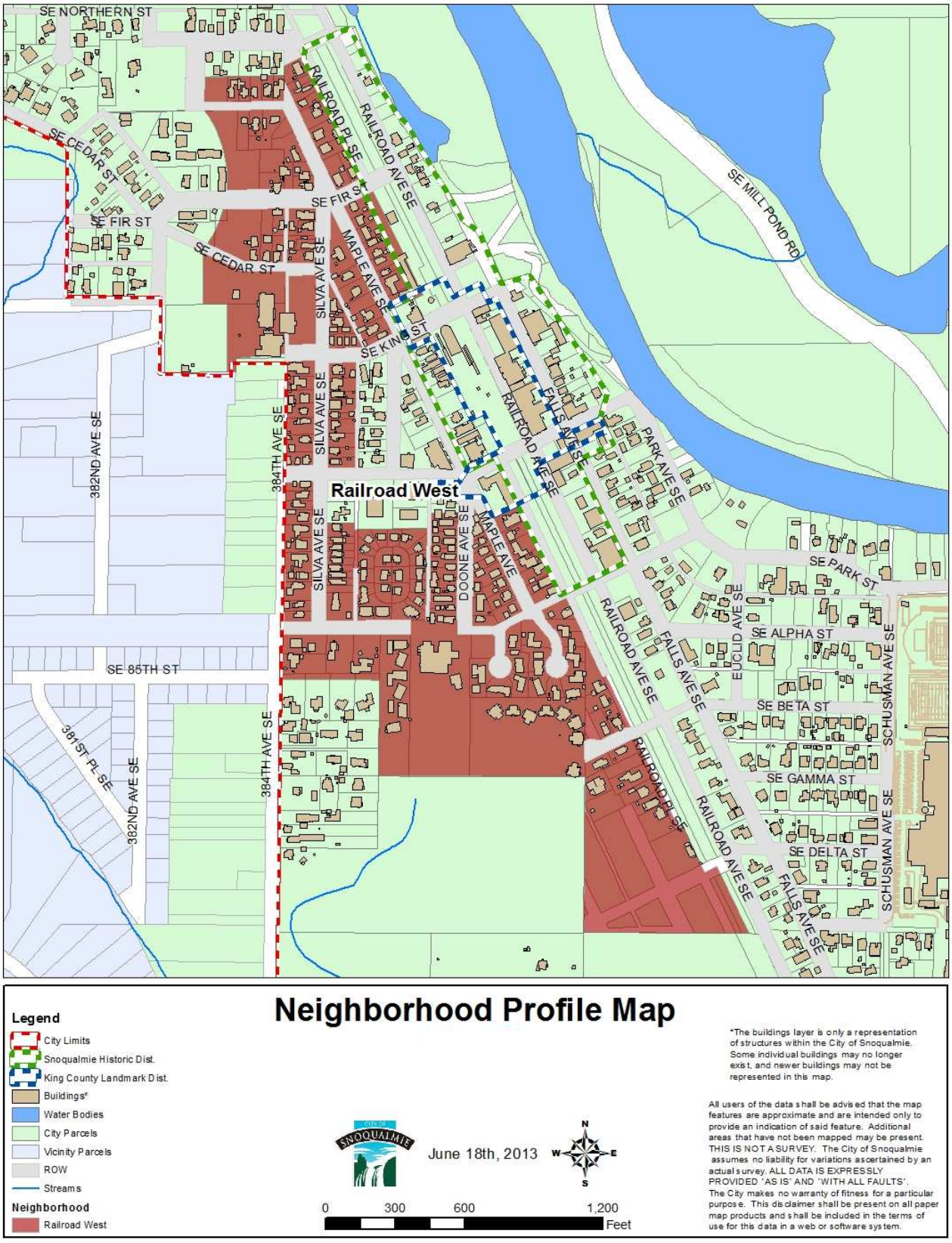


Figure 5.5 Railroad West Neighborhood Profile Map

Railroad West Neighborhood with View of Mt. Si, from the School Administration Building Bell Tower

Issues and Opportunities

One of the most unique features of the Railroad West neighborhood is the series of three 5-way intersections along Maple Avenue. These intersections are confusing for drivers, creating a potentially unsafe situation for both vehicles and pedestrians. At the same time the unique pattern of these 5-way intersections create a distinctive feature that if enhanced with traffic circles or other treatments could slow traffic, make the intersections safer, and mark the transition from the more active downtown area and the adjacent residential neighborhood. Generally, sidewalks in the Railroad West neighborhood are old and in disrepair, and many of the street trees have been removed. Sidewalk repair and street tree replacement would help with the general streetscape cohesion of the neighborhood and improve its appearance. As neighborhood zoning allows commercial uses along the east side of Maple Ave. between River and King Streets, design standards are needed to ensure continued compatibility with established single family residences across the street.

Objective

"Maintain and enhance the historic character and integrity of the Railroad West Neighborhood."

E.3 NORTHERN-CEDAR

The Streets of Cedar, Northern, Bruce and Fir form a circle that encapsulates the Northern neighborhood, creating an area with a different geographic and visual layout. The lot sizes are larger in the Northern neighborhood, with a streetscape and ambiance more rural than the Railroad West neighborhood. The northern-most section of this neighborhood was annexed into the city along with Snoqualmie Falls in Ordinance 514 in 1982; earlier sections were annexed in 1957 under Ordinances 295 & 300, though the eastern-most part of the neighborhood was part of the original incorporated area in 1903.

Objective

"Strive to create a better connection between the Northern-Cedar District and surrounding neighborhoods, without losing the characteristics that make it a unique neighborhood."

History

Homes in the Northern-Cedar district were constructed primarily from 1940 to 1970 with predominantly a ranch-style design, though houses nearer the School Administration Building were built in the cottage and craftsman style. As the

Northern-Cedar district was not part of Snoqualmie's original town plat, it does not follow the grid pattern of the original town. Reputedly there used to be a Cedar Mill in the dog leg, with Northern Street used as a log skid.

Character Defining Features

Lot sizes in the Northern-Cedar district are large, extending up to 75' in length. The houses are generally flatter structures with wide footprints and a simple design, typically with sliding doors and windows, and siding ranging from wood shingle to vinyl and aluminum. Several apartment buildings emulate a similar style. The intersection of Bruce Street and Railroad Place South serves as the neighborhood's eastern gateway, featuring mature trees and attractive landscaping; it is also the entrance point to the Centennial Trail and Railroad Park.

Issues and Opportunities

Geographic differences as well as a lack of streetscape cohesion and connectivity segregates the Northern-Cedar district from adjacent neighborhoods. There are two main neighborhood entrances, one at Cedar & Fir Street, and the other at Bruce Street & Railroad Place South. Much of the neighborhood is not connected via sidewalks, and existing sidewalks are in need of repair. While the back of the neighborhood proximal to the Snoqualmie Parkway, no connections currently exist. A bicycle and pedestrian trail through this area could link new development areas with Historic Snoqualmie and encourage interaction.

Northern-Cedar

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Add sidewalks and planter strips to at least one side where none exist, and repair existing.
- Encourage new developments adjacent to the Northern-Cedar district to connect to existing streets and sidewalks.
- Consider adding a pedestrian and bicycle trail connection from the Northern-Cedar district Northwest to the Snoqualmie Parkway.

Landscaping

- Utilize wetlands and vacant FEMA lots as parks and restored open space.

E.4 GREEK STREETS

The Greek Streets neighborhood has distinct boundaries, with the Snoqualmie River to the north and SR 202 to the southwest. Mt. Si High School is the eastern boundary, providing a visual and physical barrier between Greek Streets and the adjacent Meadowbrook neighborhood

History

Laid out in the original 1889 plat of the Town of Snoqualmie Falls (Snoqualmie today), the Greek Streets area east of Railroad Avenue was developed as one of the primary early Snoqualmie neighborhoods. The streets are laid out in a formal grid pattern with lots averaging 60 feet wide by 120 feet deep, serviced by alleys. Homes in the neighborhood are primarily small, simple cottages with minimal architectural detailing. Half of this neighborhood, including the High School site, was annexed into the City in 1952 under Ordinance 265.

Character Defining Features

Newton Street and Euclid Street both serve as view corridors visually connecting the neighborhood with Riverview Park and the Snoqualmie River.

Planting trees along the street and in the school parking lot would reduce the visual dominance of the Gym wall on Delta St.

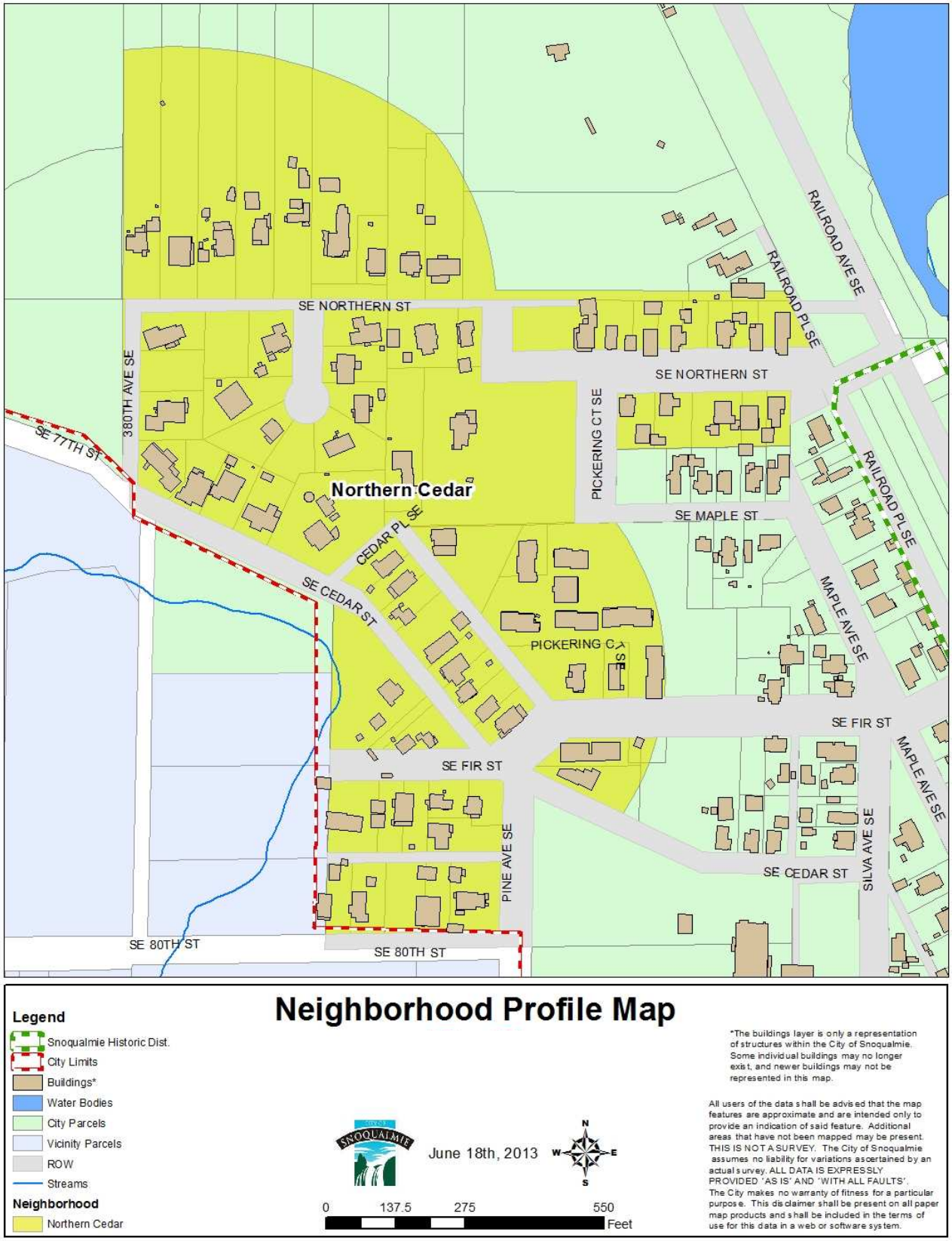


Figure 5.6 Cedar-Northern Neighborhood Profile Map

Issues and Opportunities

Because of its location in the floodway and relatively low elevation in relation to the Snoqualmie River, a number of the original homes within the Greek Streets neighborhood have been lost to flooding. These were generally replaced by one-story ramblers built during the 1960s and 70s, prior to the FEMA prohibition on residential development in the floodway. A substantial number of the homes within this neighborhood have been elevated to prevent future losses. This situation has led to a slightly odd aesthetic mishmash of older and newer homes, some of which have been elevated to sit much higher than others have. Adding street trees to the Greek Streets would help to visually tie the different architectural and massing elements of the neighborhood together for a more pleasant and cohesive appearance. Sidewalks are present on most streets, although some are in poor condition.

Because most of the Greek Streets neighborhood lies within the FEMA Floodway of the Snoqualmie River, the majority of the neighborhood will not see any new homes constructed or enlarged, as state law prohibits new residential construction within the floodway. To allow for the reasonable use of private property under residential zoning within the Floodway, a Floodway Overlay Zone was created, allowing for alternative uses to new residential construction. As a result, the neighborhood is likely to see a small amount of small-scale business infill on vacant lots. Without specific use and design controls, this business infill has the potential to substantially change the character of the neighborhood and negatively impact existing residential areas.

Objective

"Foster the creation of a distinct and unified Greek Streets neighborhood identity, focusing on its relationship with the Snoqualmie River, Riverview Park and the Mt. Si High School. Ensure that new business and commercial development constructed in the Floodway Overlay Zone is compatible with the residential character of the surrounding neighborhood."

Greek Streets

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Traffic calming features on residential streets to reduce speed hazards.
- Provide bulb-outs or special crosswalk paving treatment at the intersections of Park St. & Schushman Ave., and Park St. & Falls Ave. to improve Riverview Park pedestrian connections.
- Orient Park St. renovations to support development of a future River Walk.
- Construct sidewalks and planter strips as feasible on all streets without sidewalks, and repair damaged sidewalks as needed.

Landscaping

- Plant street trees where space allows on all Greek Streets neighborhood streets.
- Prepare a Greek Streets street tree and tree planting program to improve the streetscape and unify blocks with varied architectural styles and building heights.
- Plant trees and landscaping at the Delta St. terminus to reduce the visual impact of the large, blank high school gym wall.

Buildings & Alleys

- If an alley exists at the back of a property, encourage new businesses to provide rear employee parking accessed by the alley.
- Use design standards and design review to ensure that new businesses align with the scale and character of surrounding residences in the Floodway Overlay Zone.
- Maintain and reclaim public alleyways to sustain their usability and prevent private encroachment.

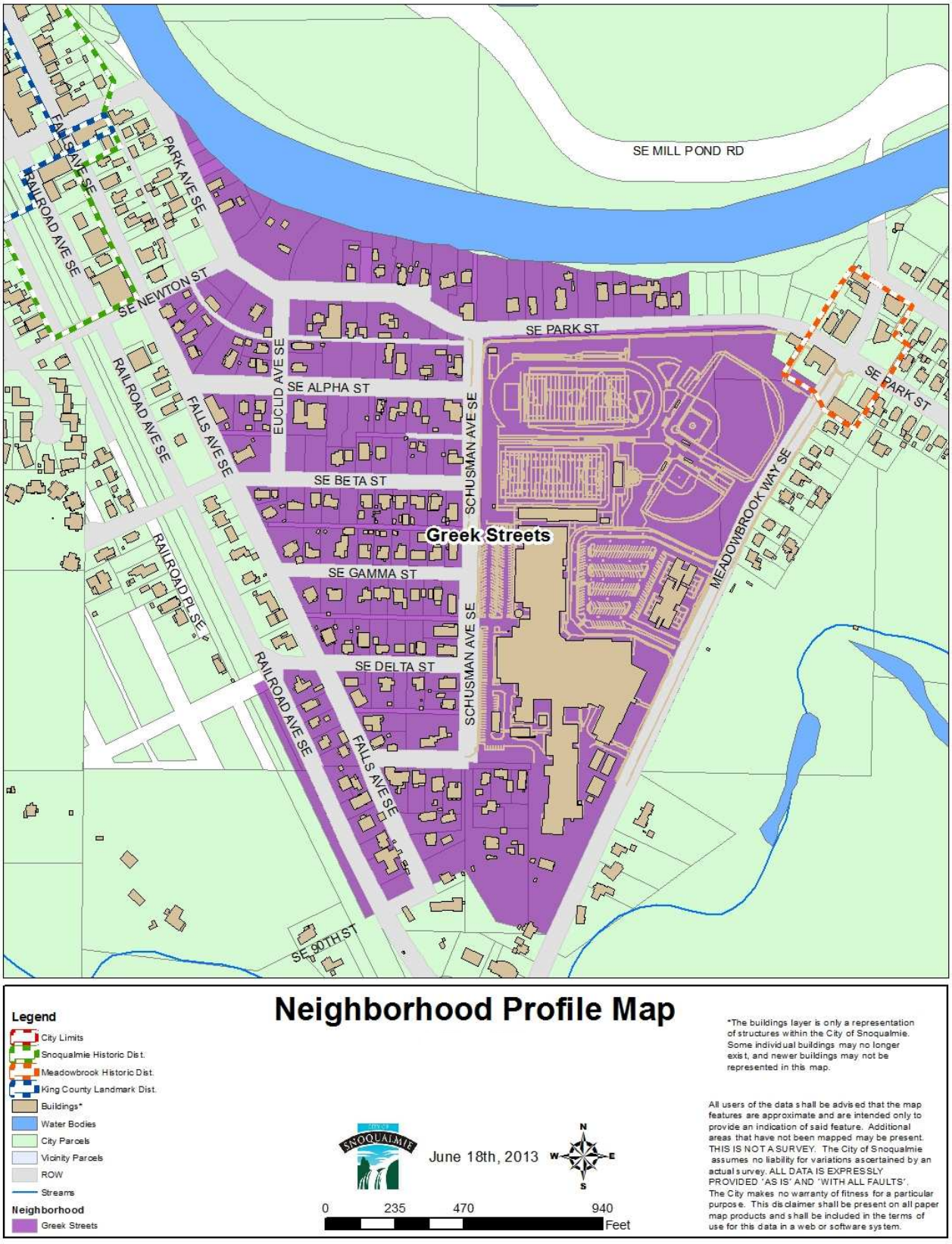


Figure 5.7 Greek Streets Neighborhood Profile Map

E.5 MEADOWBROOK

The Snoqualmie River borders Meadowbrook to the north and northeast, while the Meadowbrook Slough determines the neighborhood's southeast corner. The end of residential development along Meadowbrook Avenue and the Snoqualmie Middle School define the neighborhood boundary to the south. And, to the west, the High School and the western edge of the park on Park Street form a boundary between the Meadowbrook and Greek Streets Neighborhoods.

History

During the early twentieth century, a thriving district developed at the Park Street and Meadowbrook Avenue intersection, a major stop along the original Sunset Highway to Snoqualmie Pass. Meadowbrook was once a separate small downtown to Snoqualmie with a theater, grocery store, clothing store, auto dealer, two soda fountain shops, and other general retailers; it was the primary shopping center for mill homes across the river.

The main business buildings at this intersection were built between 1915 and 1930, reflecting the early automobile era with large projecting signs, flat suspended canopies and clerestory windows. Streets were laid out in a grid pattern served by alleys, with no elevated sidewalks, but large shoulders for angle-in parking. Homes in the district were also built between 1915 and 1930, slightly later than other areas of Historic Snoqualmie; many Meadowbrook structures used red brick in construction. Architectural styles reflected the period, with many examples of Craftsman and colonial-influenced small homes, as well as brick cottages.

The western portion of the Meadowbrook neighborhood came into the City in 1952 under Ordinance 265 with the High School. The eastern residential section and elementary school were annexed in 1966 in Ordinance 355, and the western-most open space area in 1986 in Ordinance 566 with Meadowbrook Farm.

Character Defining Features

The Meadowbrook Neighborhood has several aesthetic features that give it a distinct character compared to other city areas. A beautiful, direct view of Mt. Si fills the neighborhood background to the east, especially prominent from the main Meadowbrook Avenue and Park Street intersection. The area relates well to the Snoqualmie River to the north, with public access points at Meadowbrook Avenue and Walnut Street. The Meadowbrook Bridge creates a distinct gateway into the City north of the Historic Overlay Zone, with Meadowbrook Ave bending along a gentle curve from South to North through the district. This curve, the historic brick buildings and the distinct neighborhood boundaries create a unique and intimate feel to the neighborhood, especially when visiting on foot.

Meadowbrook

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Construct sidewalks and roadway improvements along Meadowbrook Avenue in the Meadowbrook Historic Overlay District.
- Provide traffic calming features and sidewalks on residential streets as able.
- Construct a trail access and park facilities linking the FEMA lot and Snoqualmie River access on Walnut Street with the Meadowbrook Historic Overlay District on Meadowbrook Avenue.

Landscaping

- Utilize the large open space created by the FEMA lots along Mountain Avenue for park amenities. Consider a pea-patch community garden at this location.

Buildings & Alleys

- If an alley exists at the back of the property, encourage the development proponent for a new business or commerical use to provide the employee parking at the rear of the building accessed by the alley.
- Encourage the upkeep and redevelopment of deteriorated buildings and vacant lots within the Meadowbrook Historic Overlay District.
- Encourage brick construction for new commercial buildings in the Meadowbrook Neighborhood to compliment the historic use of brick in this area.

Meadowbrook Avenue in the 1930's
(Photo Courtesy of the Snoqualmie Valley Historical Society)

Meadowbrook Avenue Today

Issues and Opportunities

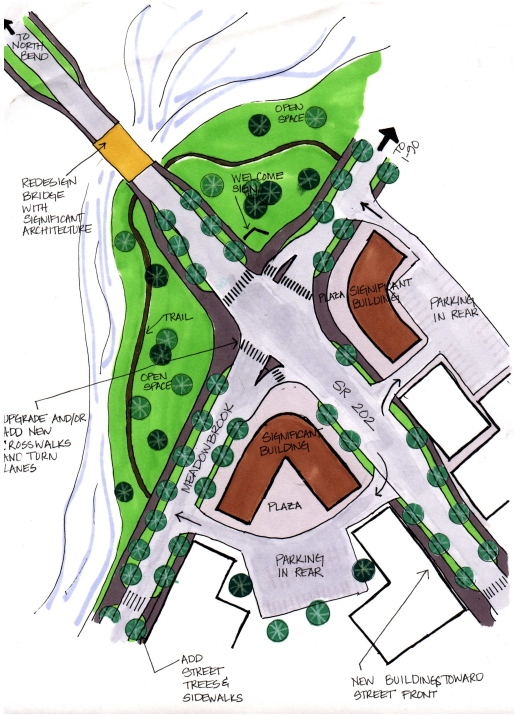
Today, the primary Meadowbrook business intersection has lost much of its original character with the removal or substantial remodel of many buildings, and the deteriorated quality of some structures. In addition, the intersection's vitality as a neighborhood retail center was substantially lost with the removal of the Snoqualmie Mill homes in 1958 that supported local stores. Since then, Meadowbrook has evolved primarily into an automotive retail and service area. However, because of the unique character of the area described above, the neighborhood could be a focus for future re-development. Public improvements such as sidewalks, historic streetlights and signage could aid in the area's renewal. An economic study should look at other ways to encourage neighborhood redevelopment.

Homes within the district are in good condition. While many have been lost to flooding over the years, fewer homes have been elevated than what is typical throughout the floodway. This presents both a concern over future losses, as well as an opportunity to construct architecturally sensitive and compatible elevations in the future. The vacant lots resulting from homes removed through the FEMA repetitive loss program are well-suited in the Meadowbrook Neighborhood for use for future park facilities. The combination of a vacant FEMA lot and a public right of way along the Snoqualmie River between Walnut Street and Meadowbrook Avenue creates a great potential location for a future riverfront park. Also the collection of a number of adjacent vacant FEMA lots along Mountain Drive creates a potential location for a future park facility such as a community pea-patch garden or open space area.Other area benefits include the Mt. Si. Golf Course, Three Forks Park and the Meadowbrook Farm – a joint resource with North Bend that is managed by the nonprofit Meadowbrook Farm Preservation Association – all of which provide beautiful settings to recreate and enjoy large, natural open space areas with views of Mt. Si.

Elk Herd at Sunset on Meadowbrook Farm. Photo by Jim Reitz. Used with permission.

Figure 5.8 Meadowbrook Neighborhood Profile Map

Potential future riverfront park and trail site.



E.6 MASKROD'S CORNER

Maskrod's Corner is isolated because of breaks in development surrounding the area. The Snoqualmie Valley Lutheran Church borders it to the north, the Snoqualmie Middle School is to the east, and the railroad forms a natural barrier to the south and west.

History

Maskrod's Corner is the unofficial name of the Meadowbrook Way and SR 202 intersection and surrounding area, getting its name from a gas station owner originally on the corner. The area's piecemeal commercial development started in the 1960s, though the Middle school was annexed into the City in 1972 under Ordinance 391, and the commercial intersection joined the City in 1978 under Ordinance 464; the earliest structures are three cottages west of Meadowbrook Ave.

Character Defining Features

Maskrod's Corner is a prominent intersection on the southern end of town, it is the gateway to Snoqualmie for those coming into town from North Bend and Interstate 90. The architecture style ranges from remodeled homes to roadside architecture. Currently, a credit union, a convenience store, a fast-food establishment, an auto repair, and an animal feed store are located near the intersection. It is a highly auto dependant area; there are few sidewalks along streets, and most businesses have front parking. Local middle school children must walk along the shoulder to get to and from school.

Issues and Opportunities

The location of Maskrod's Corner at a prominent intersection and city gateway makes it an important district for both public and private improvement and redevelopment opportunities. Currently, the neighborhood lacks pedestrian connectivity and human scale. Through the addition of sidewalks, crosswalks, and streetfront buildings, Maskrod's Corner could become a vibrant neighborhood center.

Maskrod's Corner

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Create a network of trails and sidewalks that connect the various uses within the district, as well as adjacent uses.

Buildings & Alleys

- Require future buildings to front the street, and locate parking to the rear or side of the building when feasible.
- Develop the Meadowbrook Way and SR 202 intersection as a Snoqualmie gateway through signage, landscaping, and prominent features such as distinct architecture and commissioned public art.

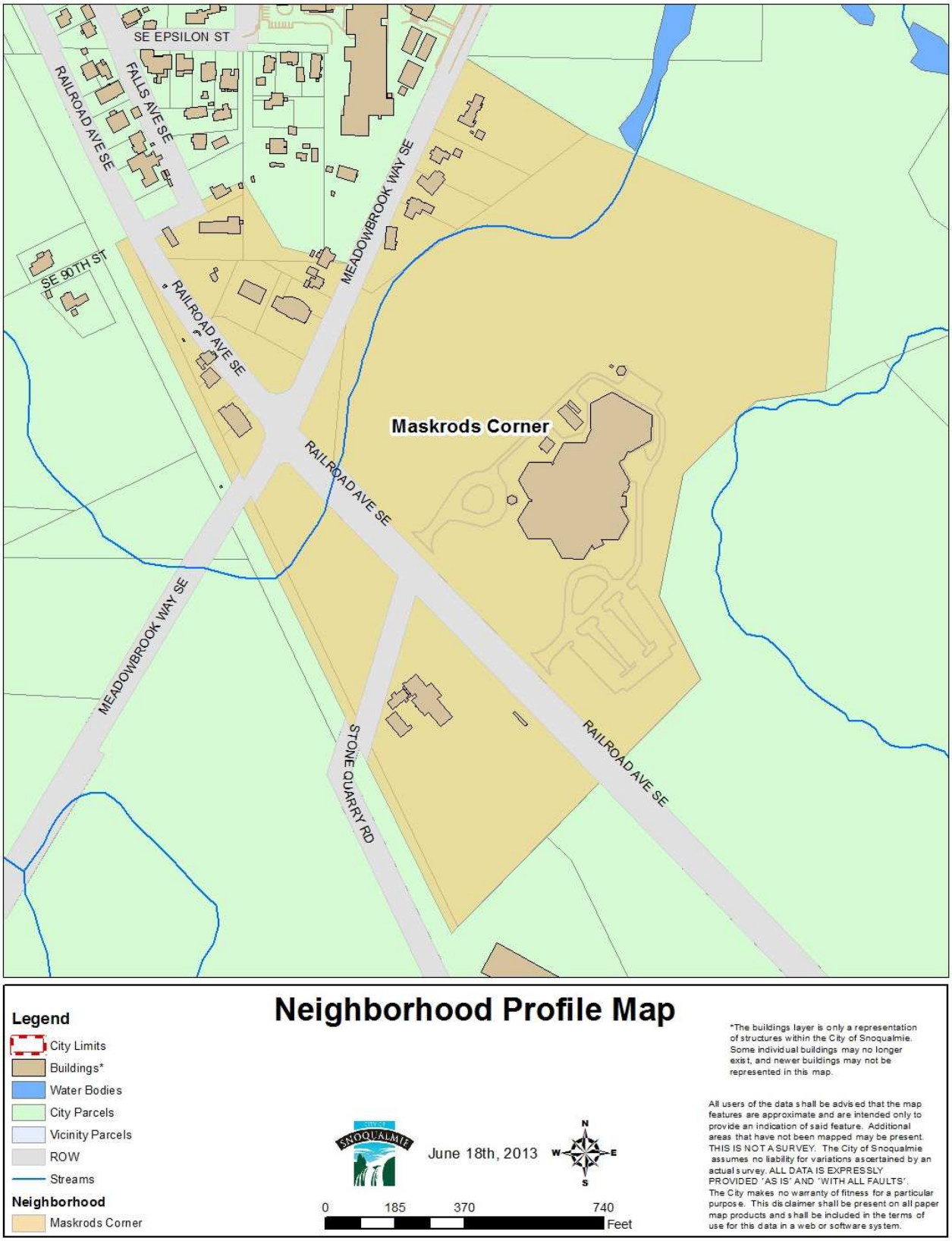


Figure 5.9 Maskrod's Corner Neighborhood Profile Map

E.7 SNOQUALMIE FALLS

The Snoqualmie River borders the Snoqualmie Falls neighborhood to the west and south. The north district edge is defined by the northern planning area boundary, about a mile north of the Salish Lodge on SR 202 and a mile northeast of the Lodge on Tokul Road SE. Just north of the city public works station is the eastern boundary.

History

Snoqualmie Falls has always been a place of aesthetic and cultural significance. The falls is a sacred site to the Snoqualmie Tribe, who have been practicing cultural ceremonies here for centuries. The falls area saw its first major development in 1898 with the construction of the Snoqualmie Falls Power Station, the world's first underground hydropower plant. Even before that, tourists had been traveling to see the falls on the Seattle to North Bend rail line, constructed in1890. The popularity of Snoqualmie Falls continued to grow with the growth of the Puget Sound area and the falls' increasing local fame. In 1916, the Snoqualmie Falls Lodge was constructed to accommodate tourists coming by train from Seattle. The lodge served as a very popular restaurant until 1987, when it was extensively remodeled and expanded into the Salish Lodge and Spa. The falls are still a very popular destination today, the second most visited tourist site in Washington.

Snoqualmie Falls

Developments in this area should incorporate the following:

Viewsheds

- Require future development to be sensitive to topography in roadway design and development.
- Preserve the Snoqualmie Falls viewshed using existing natural topography as a primary protection measure.
- Consider creating additional viewsheds in the Snoqualmie Falls Neighborhood.
- Ensure that future development takes significant steps to minimize physical and visual environmental impacts.

Character Defining Features

The obvious character-defining feature in the Snoqualmie Falls neighborhood is the falls itself. Snoqualmie Falls has been a popular statewide landmark since the turn of the 20th century. Beyond the falls, one of the defining characteristics of the Snoqualmie Falls District is the significant amount of tall, mature forest surrounding much of the development. Douglas firs and hemlocks are interspersed throughout the Salish Lodge property and adjacent Snoqualmie Falls Park, creating a shaded canopy and relaxed atmosphere around interspersed buildings. The Salish Lodge represents the primary development in the district.

Issues and Opportunities

Under current zoning, the Snoqualmie Falls neighborhood could potentially see additional residential and small-scale retail and business uses. Regardless of its size, additional development in this neighborhood would have a large impact on the character of the falls area because of its natural and rugged beauty. Retaining the significant amount of mature forest in the district when the area is developed would greatly aid in preserving this character.

Snoqualmie Falls. Photo by Jim Reitz. Used with permission.

Figure 5.10 Snoqualmie Falls Neighborhood Profile Map

Objective

"Maintain the spacious, open character and improve the connectivity of the Kimball Creek Area."

The Old Honey Farm Bed and Breakfast before the fire.

E.8 KIMBALL CREEK AREA

The Kimball Creek Area is defined by low-density, large-lot housing and a few small businesses. Buildings are scattered, with streets lacking connectivity; 384th St. outside city limits is the main through-route and the neighborhood's western boundary. The railroad forms a natural barrier to the east, the city limits provide the boundary to the south, with the northern boundary at Railroad West. Kimball Creek is addressed separately from the Railroad West neighborhood as it has lower housing density and no street grid.

History

The Kimball Creek neighborhood is a relatively recently developed area. The primary development in Kimball Creek is a subdivision of residential homes approved in 1996, though much of the area came into the City under Ordinance 485 in 1980. Prior to the subdivision, the area consisted of a small farm behind the Old Honey Farm Bed and Breakfast.

Character Defining Features

The neighborhood is most clearly defined by the Kimball Creek subdivision, consisting of large two story homes with architectural features reflective of the Craftsman style. Although the low density, large lot homes dominant the landscape, the Honey Farm restaurant and bed and breakfast is a prominent landmark along 384th Street. Natural features in the area include expansive views of Mt. Si and Kimball Creek, which meanders through the neighborhood as a series of wetlands.

Issues and Opportunities

Development in Kimball Creek has been sporadic and disjointed, resulting in poor connectivity for automobiles and pedestrians. Although still in King County, 384th Street is a main arterial for the Kimball Creek Neighborhood and Snoqualmie as a whole. 384th is also used as a primary pedestrian route, but currently lacks sidewalks or other pedestrian safety measures. The road's very narrow shoulders further exacerbate the dangerous environment for pedestrians walking this route. The area includes Kimball Creek and several wetlands, which restricts the opportunity for much further development.

The hospital, which is scheduled to be closed, makes for an interesting development opportunity. The hospital site is situated on a hill at the southern end of Kimball Creek. The site has expansive views of the Snoqualmie Valley and the mountains.

Kimball Creek Area

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Provide a bike and pedestrian trail along 384th Street once it is annexed into the city and the street is redeveloped.
- Construct an access trail between 384th Street and Railroad Avenue.
- Where possible, construct pedestrian access routes between dead-end roads.
- Require new development to connect to existing street ends whenever possible.

Viewsheds

- Protect views through careful consideration of the location of structures,

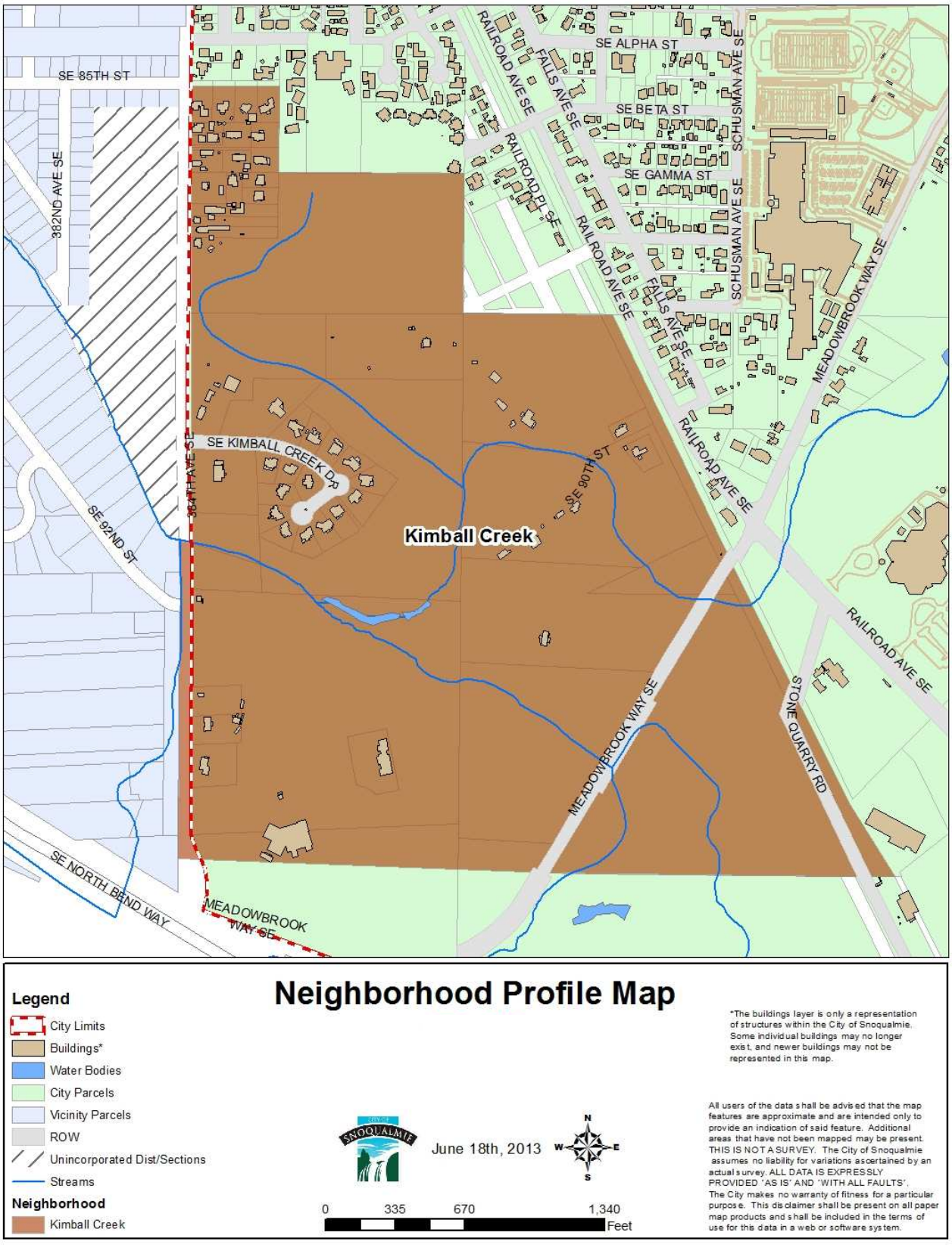


Figure 5.11 Kimball Creek Area Neighborhood Profile Map

E.9 MILL SITE

The Old Mill Site addresses a large portion of the area once occupied by the previous Mill and town of Snoqualmie Falls; it focuses on the developable portions of the recently annexed area. The South border is defined as the northern rim of Borst lake; the eastern border is a series of ridges along the city boundary; and the northern border is again defined by the City boundary. The western boundary extends south along a series of manmade canals, with a triangular extension further down, below a series of wetlands and along an unnamed road. Upon reaching SE Mill Pond Road, the boundary cuts back diagonally toward the Mill pond following the floodplain line.

History[3]

In 1917 Snoqualmie Falls Lumber company opened as the nation's second all-electric lumber mill, across the river from today's Downtown Snoqualmie, providing stable employment through US entry into World War I, World War II and into the 1980's. The company town of Snoqualmie Falls developed quickly after the Mill opened, sprouting neighborhoods such as the Flats, the Gulch, Orchard, Riverside and the Dirty Dozen – a moniker earned for its downwind proximity to the smokestacks. At its peak the Mill employed 1,200 workers, while the town held 250 homes, a hotel, barber shop, 50-bed hospital, community center, grade school, boarding house for single men and (at one point) eight bunkhouses for Japanese workers. During World War I, soldiers were even assigned to the mill to help supply wood.

Weyerhaeuser soon took over Mill operations, and while the town continued to thrive for a time, homes began being removed by 1930. The Japanese workers were interned by the Federal government in 1942, and their bunkhouses near the Mill pond were torn down; the Snoqualmie Falls hospital was replaced in 1948. By the 1950s, the houses at Snoqualmie Falls were in need of maintenance, and renting workers wanted the chance to own, so Weyerhaeuser sold houses to the workers during the notable Williams Addition housing move in 1958. The YMCA remained a gathering place at the site until its closure in 1971. Work continued to wane, and in 1989 Weyerhaeuser closed its main mill, with the dry kilns and planing plant shut down in 2002. Almost all of the original buildings associated with the town of Snoqualmie Falls and the Mill are now gone, save for the Crane shed, dry sorting shed, and the powerhouse with one lone smokestack.

Almost a decade later, the City entered into negotiations with King County to annex a majority of the Mill Site within the city's Urban

Mill Site

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Improve vehicle access to the site to serve the projected traffic volumes of proposed developments.
- Develop connections to Snoqualmie River Walk and the regional SVT Trail.

Other

- Ensure environmental cleanup sufficient for intended development uses.
- Encourage assessment of the Mill Pond waters and development of public access as appropriate.
- Protect and, as funding allows, provide support for the rehabilitation and adaptive reuse of the old powerhouse building.

Mt. Si, as seen from the Mill Pond

[3] Green, Sarah Jean. "Snoqualmie's Prairie Roots: A town grows from backwater to economic center." The Seattle Times, Friday, December 20, 2002 as cited by University of Washington Library, www.lib.washington.edu/specialcollections/collections/exhibits/Kinsey/snoqualmie.

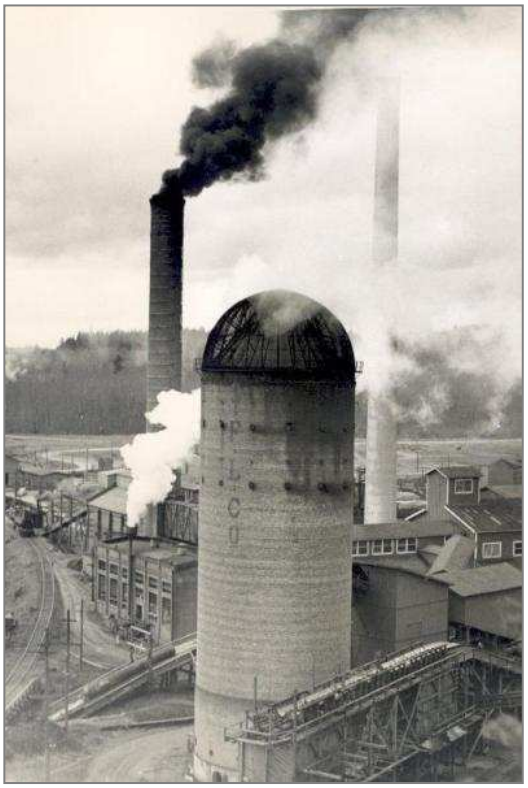
Truscott, Seth. "Chasing ghosts: Museum explores vanished town of Snoqualmie Falls." Snoqualmie Valley Record, April 5, 2010 www.valleyrecord.com/news/89955352.html

Krishnan, Sonia. "Preserving the Pieces of the Past." Seattle Times Eastside Bureau, April 15, 2005 seattletimes.com/html/localnews/2002242124_mill15e.html. All Cited 06/12/13

Growth Area, with properties of the site owned by Weyerhaeuser and Snoqualmie Mill Ventures. In August of 2012 the city council adopted Ordinance 1098, annexing 593 acres in the Mill Planning Area.

Character Defining Features

One of the largest defining features of the Mill Site is the southern view of Mill Pond or Borst Lake, named after the Snoqualmie founding father Jeremiah Borst. Borst Lake served as a former log holding pond of he Mill, its doughnut-shaped "slough" formed via flooding of an abandoned oxbow of the Snoqualmie River; today it continues to provide habitat to fish and wildlife such as trumpeter swans, as well as a beautiful southwest view to Mt. Si. Other than that, the site features a relatively flat expanse suitable for development, likely with a higher water table, and a few remaining large building sheds associated with old Mill operations. A series of man-made canals move down the middle to the site to Borst Lake.



Snoqualmie Mill, 1944 (Harold Keller collection)

Issues and Opportunities

The Mill site delineation described in this profile is largely developable, as it does not include the Mill site's northerly wetlands, or the hard-to-develop southern floodway, which were both included in the 2012 annexation. Mill site development must overcome some difficulties associated with its history and location, including reported environmental contamination resulting from past Mill operations. While clean-up reports show extensive redress of detected contamination in the years prior to annexation, some additional clean-up or verification may still be required. Mill site development is also challenge by location, as flooding potential must be taken into account during building in the floodplain. In addition, while the site is not far from SR 202, it is some distance from Interstate 90, which may also hinder investment.

Despite these challenges, the Mill also holds great potential for redevelopment. The Mill site Pre-Annexation Plan required property owners to reserve rights-of-way for connecting the Snoqualmie Valley Trail (SVT) gap, as well as future connection to a river walk trail adjacent to the Snoqualmie River. The abundant surrounding forest area, as well as the main Rally School business currently located at the site, generally holds promise for potential recreation development, as well as recreational product manufacturing.

One of the joint opportunities and issues of the Mill Site is the potential rehabilitation of the remaining historic smokestack and powerhouse at the Site. In August of 2004, Weyerhaeuser knocked down a 1944 concrete smokestack– the taller white smokestack obscured by smoke in photo above. Worried about losing the Mill's last historical features, local residents banded together to save the 211-foot brick chimney and powerhouse (pictured at right). In the summer of 2004 the King County Landmarks Commission declared the site a historical landmark, and in 2005 the site was placed on the Most Endangered Historic Properties List by the Washington Trust for Historic Preservation. In 2006 a Snoqualmie Falls Lumber Company Powerhouse rehabilitation study was done by PTF Architects, which noted that while the structure shows a lack of maintenance, the brick was still in fair condition save from 2001 Nisqually quake damage and effects of the previous tower detonation; the existing smokestack was also noted to be in good condition. Redevelopment and upgrade scenarios were explored: stabilization is estimated to cost $1.9 million; redevelopment to brewery $2.8 million; to office $2.9 million; office & light industry $4.5 million; or Industrial Arts Center $4.4 million. Regardless of future redevelopment the costs, while not insurmountable, are substantial.

Weyerhaeuser Mill Smokestack & Powerhouse, present day

Figure 5.12 Mill Site Neighborhood Profile Map

E.10 SNOQUALMIE RIDGE

Snoqualmie Ridge neighborhoods occupy the western half of the City, meeting the nearby northern and western city boundaries, then curving around the Snoqualmie Hills Planning Area to the southern boundary as well. The neighborhoods are extensions of moderately dense, relatively new residential development from the Ridge's retail and business park core, ringed with forested critical area buffers, wetlands and storm ponds.

Snoqualmie Ridge

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Establishing pedestrian through-ways on cul-de-sacs currently without them to support pedestrian connectivity.
- Clear way finding signage on main arterials while avoiding visual clutter.
- Distinct Gateway treatment for the Ridge Marketplace.

Other

- Artistic enhancements which help distinguish the character of individual neighborhoods.

History

In 1990, the city annexed 1,300 acres on the Lake Alice plateau for the Snoqualmie Ridge development, with the Snoqualmie Ridge Mixed Use Final Plan approved in 1995. Construction ran from 1996 to 2009, bringing approximately 2,300 homes to the city as well as a community center, 130-acre Ridge Business Park, TPC Golf Course, a new wastewater plant and a new elementary school. Phase II was originally planned to occur 20 years after Phase I's completion, but the Cascade Land Conservancy (CLC; now Forterra) approached the City and developer Weyerhaeuser to allow immediate development in exchange for Weyerhaeuser's financing the purchase of 100 acres of natural area behind Snoqualmie Falls for preservation. In addition, CLC worked with King County to transfer development rights to Phase II land from an area in need of protection along Highway 18, securing additional natural area protection. Subsequently, in 2004 Phase II was approved, adding 736 acres and up to 2,150 additional homes.

Character Defining Features

Design of Snoqualmie Ridge neighborhoods has largely been established by the Mixed Use Final Plans of Phase I & II developments, as well as their individual (though overlapping) design standards. The standards were developed along the principles of New Urbanism, a design movement begun in the 1980s that focused on creating walkable communities with mixed land uses. Some indicators of this design heritage includes alley-loaded lots and recessed garages; widespread porches among residences; a complex trails system connecting neighborhoods and parks; a Main Street-designed local retail center with rear-parking; and pedestrian-scale features, with wider sidewalks, abundant street trees, and variable, interesting facades that attract people to use the sidewalks and trails throughout their neighborhood.

Issues and Opportunities

Housing Element Section H. Residential Owners Associations, provides additional information on ROAs and CC&Rs.

Snoqualmie Ridge housing and businesses must meet the Residential Owners Association (ROA) Covenants, Conditions & Restrictions (CC&Rs), which guides design choices to jointly maintain a desired aesthetic. While this provides a consistent look and feel of the neighborhoods altogether, they can seem overly similar to visitors, and make way-finding more difficult. Elements of the built environment could be used to better delineate neighborhood character without interfering with the overall aesthetic, including themed public furniture; statues; murals; decorative manhole covers; sidewalk art; distinguishing public park elements; or plaques on the local history, flora, and fauna behind local street names.

As the Snoqualmie Parkway is the main entry route to retail and commerce in the Snoqualmie Ridge neighborhoods, it is important that the City maintain good way finding signage along this route while avoiding visual clutter. Likewise, district gateway treatment at the intersection of the Snoqualmie Parkway and SE Center St. would help distinguish commercial areas to visitors. Although the overall street and sidewalk network of this area will likely remain the same for some time, providing pedestrian through-ways in cul-de-sacs as able will improve neighborhood connectivity. Also, the short construction timeframe for Ridge I & II neighborhoods means that maintenance needs will mature at equivalent times, indicating the prudence of stratifying maintenance upgrades as able.

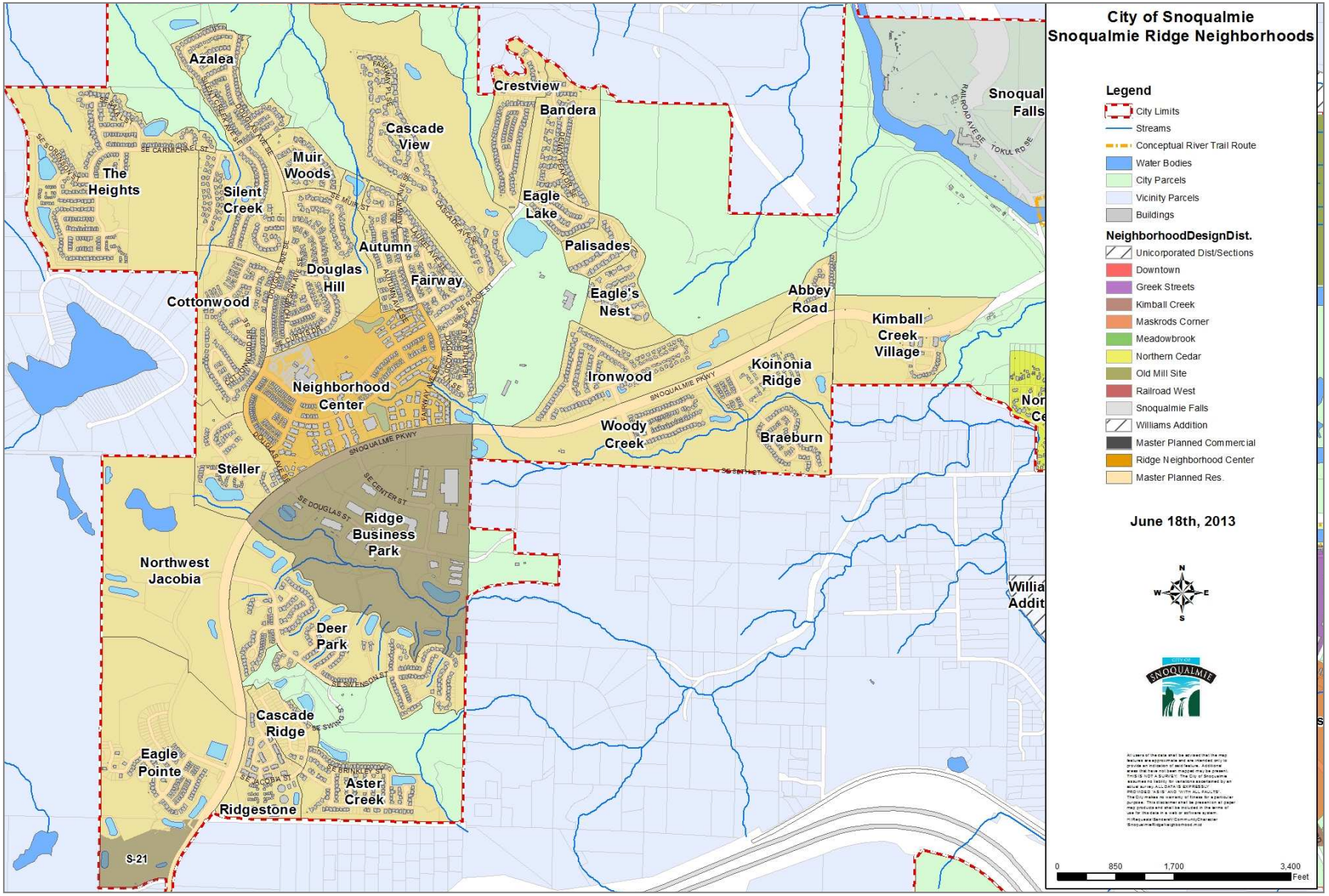


Figure 5.13 Snoqualmie Ridge Neighborhoods Profile Map

E.11 WILLIAMS ADDITION

Objective

"Increase pedestrian and vehicular access in Williams Addition while preserving its distinct history".

The Williams Addition Neighborhood is in Snoqualmie's Urban Growth Area, though it is currently outside of City Limits. The neighborhood has distinct boundaries formed by 85th Street and 382nd Street, forming a triangle with one access point at 384th St.

History

The Williams Addition Neighborhood has one of the most unique histories of any neighborhood in Snoqualmie. The homes in this neighborhood were originally part of the mill town of Snoqualmie Falls built in 1917 by the Snoqualmie Falls Lumber Company, across the river and to the northeast of downtown Snoqualmie. The town included a substantial number of homes built to house lumber worker families, as well as a general store, post office, barber shop, railroad depot, hospital, school, and a community center. When the Weyerhaeuser Company later took over mill operations, it no longer wanted to be involved in housing its employees, and began selling the homes for $100 to $150 with the provision that the homes be moved to private property. In 1958, local town banker C. Beadon Hall proposed a plan to the residents of Snoqualmie Falls to move the homes across the river to a section of the Jack Williams Farm, where he would buy the property, install streets and sell lots for the homes. The residents accepted the plan and began the move just two months later. A temporary bridge was constructed at the end of River Street, and homes were slowly moved, furniture and all left in place, across to the new Williams Farm addition to the City. Many neighborhood homes were remodeled soon after the move, breaking some of the visual ties to their unique history. (Information provided by Dave Battey, valley historian.)

Character Defining Features

The Williams Addition neighborhood has a very relaxed and spacious feel, with lot sizes wider than most throughout the rest of the historic city. The homes are a mixture of cottages and one-story homes substantially remodeled over time; most do not have garages, although several have added carports. Williams Addition has no sidewalks or public landscaping, with parking is generally on the street shoulder. A prominent view of Mt. Si graces the eastern view from the neighborhood entrance.

Issues and Opportunities

Williams Addition is fairly isolated because of its one access point. There is a right of way for the connection to 382nd Street to the north and another for the continuation of 382nd to the south; opening up these right-of-ways in future development would increase circulation and overall neighborhood connectivity. The neighborhood could also draw on its history to create a unique identity with the addition of interpretive signs depicting the move of the original town to its present location.

Williams Addition

Developments in this area should incorporate the following:

Streets, Sidewalks & Trails

- Add sidewalks and street trees to 85th and 382nd Street.
- To improve neighborhood connectivity, extend 382nd St. to the north when future development is proposed.
- Create a visual gateway at 85th and 384th St, including a welcome sign identifying the history of Williams Addition.

Buildings & Alleys

- Encourage the retention and restoration of historic homes.

Landscaping

- Create pocket parks through landscaping on vacant FEMA lots.

A Williams Addition home, an original resident of the town of Snoqualmie Falls.

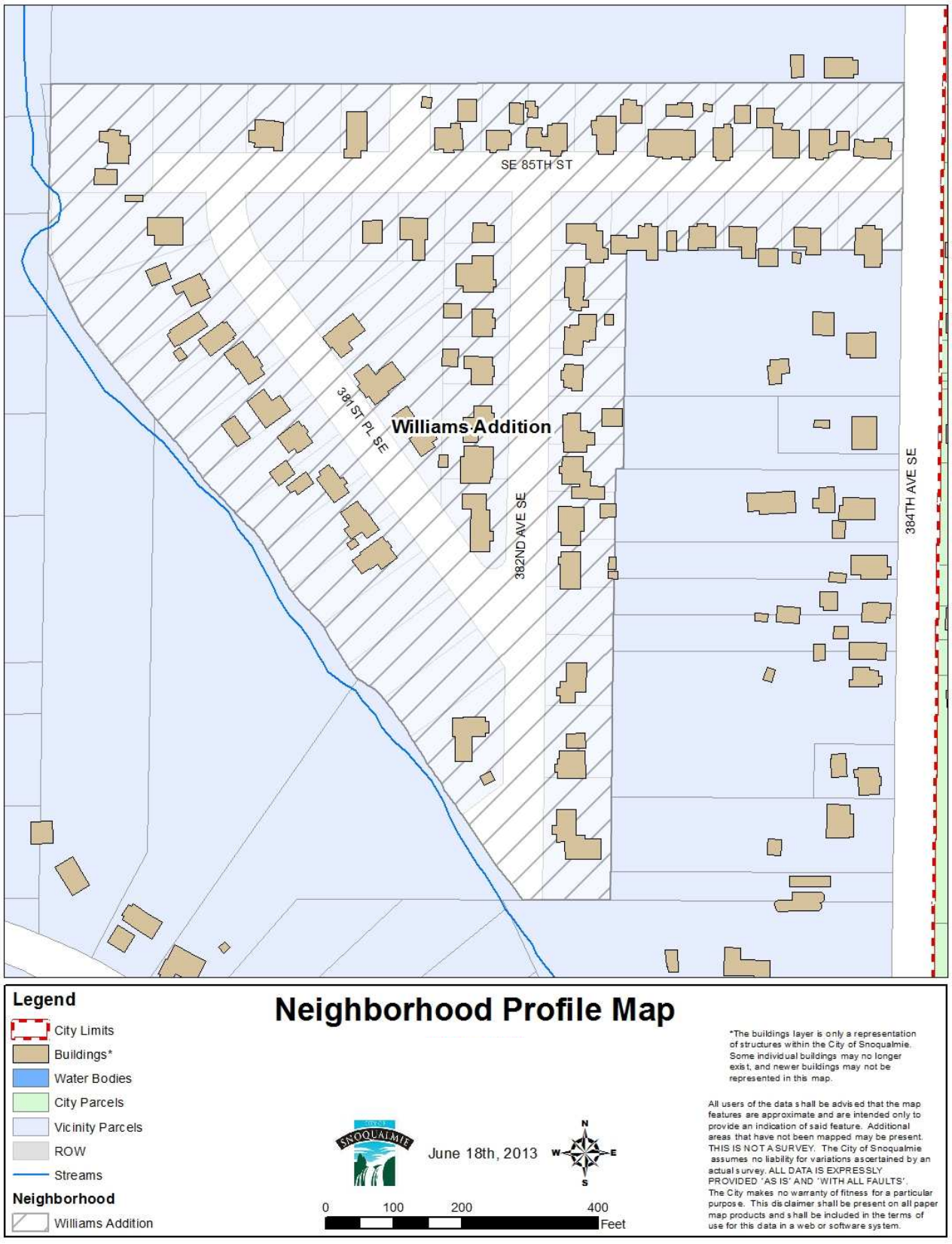


Figure 5.14 Williams Addition Neighborhood Profile Map

E.12. 202 GATEWAY (Reserved)
The 202 Gateway neighborhood is defined as the area where the Snoqualmie Parkway intersects with SR 202. This section is reserved pending future development.

F. HISTORY OF SNOQUALMIE

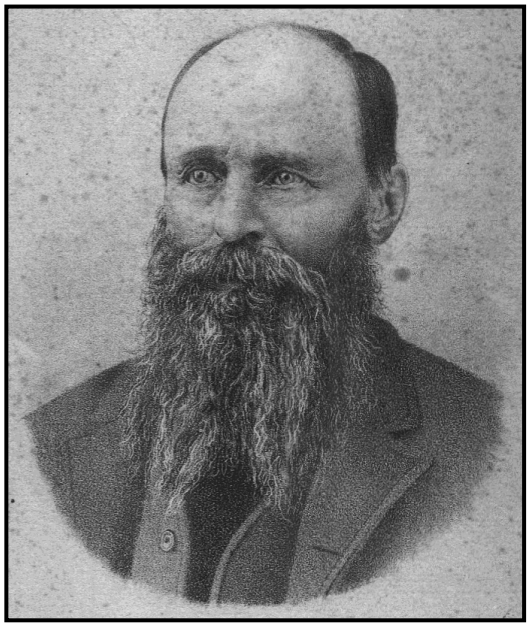
Snoqualmie has a wealth of historic and cultural resources from many thousands of years of native American habitation and its more recent 100 years of European settlement. A strong sense of community history is provided by local buildings such as the train depot, City Hall, older churches, Weyerhaeuser mill and School District administration offices, which recall the town's railroad, timber and Victorian heritage. Outside of the City core, the natural and cultural landscape contains important sites and features that provide tangible reminders of past events, people, places and lifestyles. These resources contribute to Snoqualmie's unique identity and are highly valued by local residents.

Photo Courtesy of SVHS
(Snoqualmie Valley Historical Society)

The following chronology describes key cultural and historic events, people and places of the community's heritage.

Pre-Contact**.** Soon after the glaciers receded, humans came to the upper Snoqualmie Valley. The glaciers left a fertile plain and an unusual winding river that spilled to the valley below over a bedrock ledge at Snoqualmie Falls. Mountain goats were plentiful on the surrounding crags, and edible bulbs and berries were abundant on the valley floor. Without salmon there was little to draw a permanent population to this early landscape. However, as trade between the coastal and inland native Americans increased, the Snoqualmie 'prairie' became a traditional seasonal rendezvous area, and one of the traditional homelands of the Snoqualmie Tribe. To preserve its productivity, the Indians burned the prairie, keeping the valley floor clear of competing vegetation. It was these cleared and fertile prairies that first drew white settlers to the upper Snoqualmie Falls and Snoqualmie Valley.

Early Exploration**.** Samuel Hancock was looking for coal when he hired a party of Snoqualmie Indians to bring him up-river by canoe in 1851. Several others had preceded him, but they failed to record their impressions in writing. Standing on a site near the current Meadowbrook Bridge, Hancock asked his guides what the area was called. They answered, in Chinook jargon, "Hyas Kloshe Illahee", which means a good (or productive) land. Samuel immediately recognized the agricultural and timber value of the area, and took this information back to his neighbors near what later became Tacoma.



Jeremiah Borst
(Photo Courtesy of SVHS)

Indian Wars**.** Friction around Puget Sound increased as white settlers claimed the cleared land that had been used for centuries by the native Americans for their naturalized bulb, berry and root crops. In 1858, Puget Sound settlers feared that Indians east of the Cascades would become allies of the coast tribes to annihilate the whites. A series of crude wooden forts were built, including Fort Alden at Meadowbrook. No Indians ventured west however, and the forts were quickly abandoned.

Jeremiah Borst**.** In the spring of 1858, Jeremiah Borst, a twenty-eight year old man on his way to Eastern Washington via the Cedar River trail, decided that the upper Snoqualmie Valley was too good to pass up. He settled down in what was left of Fort Alden, to become the legendary 'Father of the Snoqualmie Valley' (He owned land in what is now Snoqualmie and North Bend, and platted Fall City). Jeremiah raised hogs and apples for sale in Seattle, and slowly bought up land

from less successful pioneers. In 1863, the steep trail on the south side of Snoqualmie Falls was improved into a road and the transportation of goods to and from the area became easier.

Early Logging**.** As Borst and others farmed, a few tough pioneers began logging and milling operations. In 1872, the first local mill, run by water power, was open at the mouth of Tokul Creek by Watson Allen. By 1877 there were twelve logging operations on the Snoqualmie River. Many of the logs were floated over the falls and down-river to Everett and the Sound. By 1886, logging camps on the river employed 140 men and sent millions of board feet of logs downriver.

Hop Farming**.** Three Puget Sound partners formed the Hop Growers Association in 1882. They purchased land from Jeremiah Borst in the Meadowbrook area, and soon expanded to over 1500 acres, about 900 of them in hops. The Snoqualmie Hop Farm was billed as "The Largest Hop Ranch in the World", and was headquartered at Meadowbrook. Hop growing flourished for about ten years, into the late 1890's, and then world market conditions and aphid attacks brought an abrupt decline.

The Railroad**.** By 1889, Puget Sound entrepreneurs, tired of railroad barons bypassing Seattle and environs, had funded and built their own railroad, the ***Seattle, Lake Shore and Eastern***, into the upper Snoqualmie Valley in a premature attempt to cross the Cascade mountains. This opened up the area's agricultural and timber resources to world markets, and began the influx of tourists who still flock here to enjoy the beautiful scenery. In 1890 the railroad company completed the still attractive and functional Snoqualmie Depot.

Snoqualmie Platted**.** With the railroad came a feverish speculation in upper Snoqualmie Valley land. North Bend was platted in February of 1889 (as 'Snoqualmie'). Snoqualmie was platted in August of the same year by Seattle interests. It was then called 'Snoqualmie Falls'. Tradition states that the first lots in town were purchased by Edmund and Louisa Kinsey. Together with their six children, they built the first hotel, livery stable, general store, dance hall, post office and meat market. Edmund helped build the first church in Snoqualmie, the Methodist Church building that now serves as the American Legion Hall; his name is engraved on the church bell. Two sons, Darius and Clarke, earned lasting fame for their photographic legacy of pioneer Northwest timber operations.

Power Plant at the Falls**.** In the late 1890's, a civil engineer named Charles Baker (who prepared the 1889 Snoqualmie Falls plat) engineered and built the underground power plant at Snoqualmie Falls. The plant produced both electricity and local jobs. Baker's original generators are still spinning today. A small company town, including a railroad depot, developed at the falls to house workers. The plant was expanded in 1911, when a second power house was added below the falls.

Main Street, Snoqualmie, 1911 (Photo Courtesy of SVHS)

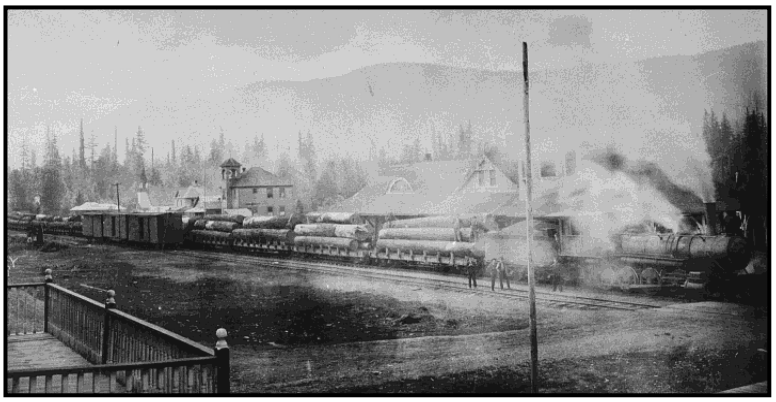
Incorporation**.** The citizens of Snoqualmie voted for incorporation in 1903. A series of recessions and obstinate developers had created a challenging environment for the new town council, which met above Harding's store. Lots were still costing $300 each, as they had been in 1889. In defiance of these high prices, citizens had built on street rights-of-way and on vacant lots. Dozens of buildings were in fact "squatting" on un-owned land. The lot price was lowered and a long abatement procedure began, in which barns, mills, stores and houses were moved out of the public right of way. The result was a town much as we know it today.

Meadowbrook Farm**.** As hop ranching slowed, other types of agriculture flourished on the fertile land of the upper Snoqualmie Valley. About 1904, the ranch was sold to A.W. Pratt, who with Angus J. Moffat, managed Meadowbrook Farm, primarily as a dairy, into the 1950's. As agriculture rapidly declined in the mid-1960's, a group of local investors purchased the farm. In late 1993 the bulk of the remaining property was purchased for open space by Snoqualmie and

North Bend, using funds from King County Conservation Futures bonds. The public purchase created a permanent scenic buffer, wildlife habitat and flood storage area on the Valley floor between the two neighboring cities.

Snoqualmie Falls Lumber Company**.** In 1917 the second all-electric lumber mill in the nation opened at the new company town of Snoqualmie Falls. It was built across the river from the town of Snoqualmie. The economy of the Valley was given a significant and stable employment base. As mill workers were funneled away to serve in World War I, they were replaced by soldiers, in order to keep essential wood products, which included spruce for airplanes, in production. By 1923, A.W. Pratt was platting the Meadowbrook addition to Snoqualmie. The Snoqualmie area was growing; evidenced by the construction of a brick hotel, movie theater and new bank building (now City Hall).

Post Depression**.** The building boom, which included the erection of the brick-fronted buildings now housing the drug store, lasted until the Great Depression, which hit bottom in the upper Snoqualmie Valley during 1932. Salaries and wages fell, but the mill still continued to produce throughout the hard times. In the face of economic challenges, Snoqualmie volunteers turned out to clear Railroad Park, plant trees and erect the totem pole still enjoyed today.



Lumber Train Departure (Photo Courtesy of SVHS)

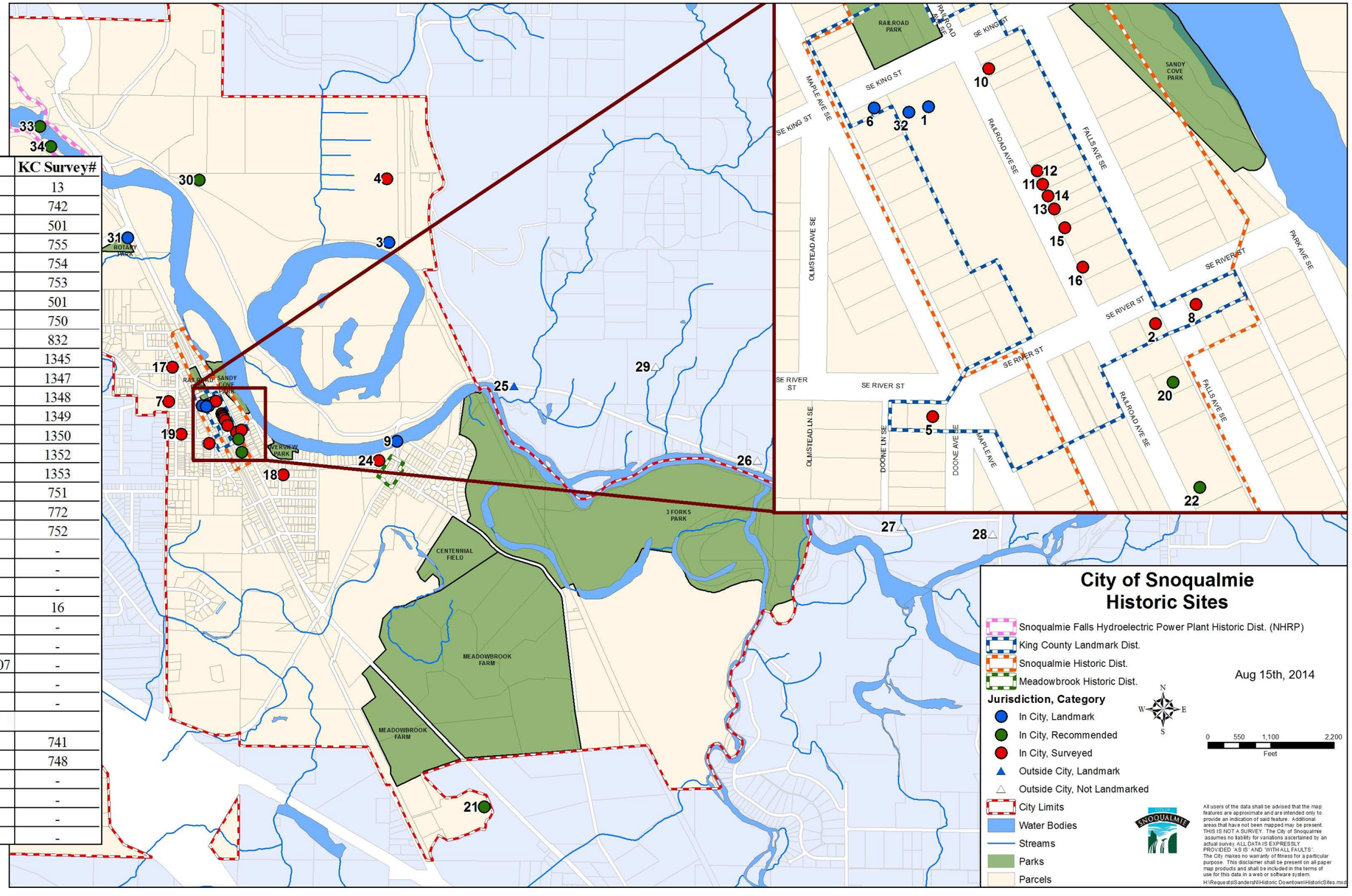
World War II and the post-war boom increased the nation's lumber needs, but also increased individual mobility. The construction of US 10 (Now I-90) bypassed the town and curtailed economic opportunity. But in 1959 the town was encouraged by the opening of a new Weyerhaeuser plywood plant. By 1958, the bulk of the homes at the mill town of Snoqualmie Falls were moved to other locations in the Snoqualmie area. This included a group of homes that were moved across a temporary bridge to the William's Addition. By 1960, Snoqualmie's population had stabilized to 1,216. Over the following thirty years, the City grew slowly, with an average increase of just eleven persons per year.

In 1990, the city annexed 1,300 acres on the Lake Alice plateau for the Snoqualmie Ridge development. The Snoqualmie Ridge Mixed Use Final Plan was approved in 1995, with construction starting in 1996 and completing in 2009. This project brought approximately 2,300 homes to the city, as well as the 130 acre Ridge Business Park, TPC Golf Course and a new elementary school. Phase II was approved in 2004, laying out plans to develop another 736 acres and up to 2,150 homes.

Figure 5.15

Historic Sites Map

Id	Name	KC Survey#
1	Snoqualmie Railroad Depot	13
2	Old Snoqualmie City Hall	742
3	Snoqualmie Falls Lumber Co. Power Plant	501
4	Snoqualmie Falls Townsite & Plant	755
5	Methodist Church (Legion Hall)	754
6	Independent Order of Oddfellows Hall	753
7	School Admin. Bldg.	501
8	True Value Hardware Store (Reinig Bros. General Merc.)	750
9	Meadowbrook Bridge	832
10	Latbergers Barbershop	1345
11	Glazed Brick Building	1347
12	Cafe & Tavern	1348
13	Sunset Theater/Town Hall	1349
14	Kritzers Meats	1350
15	The Fury Block	1352
16	Bookters Baker/Puget Sound Power & Light	1353
17	Residence: Sage, 1890; 405 N. Maple	751
18	Residence: Tharp, 1904; 222 Euclid St.	772
19	Residence: Nye, 1902; 108 W. Silva	752
20	Residence: 8201 Falls Ave.	-
22	Otto Reinig Magnolia	-
23	Second Snoqualmie Falls Depot	-
24	Fort Alden Site	16
21	The "Swing" (Stone Quarry)	-
30	Japanese Camp Site	-
31	Northern Pacific Railway Steam Rotary Snowplow No. 10, 1907	-
32	Messenger of Peace Chapel Car, 1898	-
33	Snoqualmie Falls	-
	Nearby Historic Sites	
25	Sycamore Corridor Grove/Reinig Road	741
26	Reinig Ranch	748
27	Thompson House	-
28	Old North Fork School District Site	-
29	Moses Family Property	-
34	Snoqualmie Falls Cavity Generating Station	-



Listed in the Washington Heritage & the National Register of Historic Places [1]

APPENDIX 5-I: INVENTORY OF HISTORIC SITES

***Bold text survey numbers indicate sites with official King County Landmark designation.**

NAME	LOCATION	KING COUNTY SURVEY FILE NUMBER*
Snoqualmie Historic Commercial District 1889-1941. *Local Landmark.* *The District includes 20 Contributing Properties, including the Snoqualmie Railroad Depot and the Order of Oddfellows Hall.*		**Designated 1997**
Snoqualmie Railroad Depot. [1] ***Local Landmark***	**109 King St**	**Designated 1995 0013**
Northern Pacific Railway Steam Rotary Snowplow No. 10, 1907. Local Landmark.	**NW Railway Museum**	**Designated: 1995**
Messenger of Peace Chapel Car, 1898. [1] ***Local Landmark.***	**NW Railway Museum**	**Designated: 2009**
Independent Order of Oddfellows Hall. *Local Landmark*	**King St. and Maple Ave., Snoqualmie**	**Designated 1995 0753**
Snoqualmie Falls Lumber Co. Power Plant; 1929. *King County Landmark*	**37800 SE 69th, Snoqualmie**	**Designated 1982 0500**
Meadowbrook Bridge *King County Landmark*	**396th Ave. SE & SE 82nd St.**	**Designated 1997 0832**
	* * * * *	
Bookter's Baker/ Puget Sound Power and Light	8120 Railroad Ave. SE	1353
Café and Tavern	8072 Railroad Ave. SE	1348
Fort Alden Site	North of Park St. on River	0016
The Fury Block	8102-8112 Railroad Ave SE	1352
Glazed Brick Building	8062 Railroad Ave. SE	1347
Kritzer's Meats	8096 Railroad Ave. SE	1350
Latberger's Barbershop	8008 Railroad Ave. SE	1345
Methodist Church (Legion Hall)	River St. and Doone St., Snoqualmie	0754
Residence: Nye, 1902	108 W. Silva, Snoqualmie	0752
Residence: Sage, 1890/1918	405 N. Maple, Snoqualmie	0751
Residence: Tharp, 1904	222 Euclid St., Snoqualmie	0772
Snoqualmie City Hall	River St. and Falls Ave., Snoqualmie	0742
School Administration Building	King St. and Silva St.	0501
Sunset Theater/ Town Hall	8086 Railroad Ave. SE	1349
True Value Hardware Store (Reinig Bros. General Merc.)	North Falls Avenue, Snoqualmie	0750
Snoqualmie Falls Townsite & Plant	Off 396th Dr. SE, Snoqualmie	0755

SUGGESTED ADDITIONS TO SNOQUALMIE HISTORIC SITES *(for future survey & evaluation)*

NAME	LOCATION	COMMENTS
Residence	8201 Falls Ave	Old Snoqualmie School *(& house of ill repute)*
'Swing Rock' *(Stone Quarry)*	SR 202, between Snoqualmie & North Bend	Native American heritage site
Otto Reinig Magnolia	Railroad Avenue	Exceptional specimen tree; *Otto R. was postmaster & Mayor.*
Snoqualmie School Campus[1] *1911-1920.*	King St. and Silva St.	On National Register, Record 411418. Added in 1989. 5 contributing buildings
Snoqualmie Falls[1] *1800-present..*	Snoqualmie River, between mile 40 & 41	On National Register, Record 444327. Added to National Register in 1992.
Second Snoqualmie Falls Depot	Near Power Plant at Falls	
Japanese Camp site	Mill Pond Road near abandoned log dump	Camp for Snoq. Falls Lumber Co. workers

NEARBY HISTORIC SITES
Outside Snoqualmie UGA

Thompson House	Reinig Road at "T"	Classic farm house
Moses Family Property	Reinig Road at Sycamore Grove	Native American homesite
Reinig Ranch	415 SE Reinig Road	0748
Reinig Road/Sycamore Corridor *1929*	**Between 396th Dr. SE & SE 79th St.**	**Designated 1982**
Snoqualmie Falls Cavity Generating Station. [1] *1898-present..*	North of Snoqualmie on Snoqualmie River.	On National Register, Record 444327 Added to National Register in 1976
Snoqualmie Falls Hydroelectric Power Plant Historic District. [1] *1890-1938.*	0.5 miles North of Snoqualmie	On National Register, Record 418805 Added to National Register in 1992

Note: Surveying means only that a file has been established and that information has been gathered about the listed site. Once surveys have been done, individual sites may or may not be eligible for landmarking, but the official determination on that site's status has not yet been made.

Environment
Table of Contents

LIST OF FIGURES

A. INTRODUCTION

Snoqualmie is known for its stunning landscapes, which contribute to the city's economic prosperity and quality of life. The natural feel of Snoqualmie is interwoven throughout the city and its neighborhoods, attracting tourists to enjoy local recreational activities and making this natural quality one of the City's most striking, and therefore most precious, assets. Development patterns, infrastructure siting, and everyday human behavior impact both community character and the natural environment. Fundamentally, the city's economic health, air and water quality, and human health are all tied interdependently with a healthy, natural environment, and the city must strive to steward all of these assets wisely.

GMA does not require that comprehensive plans include an environment element, though they must provide a plan to:

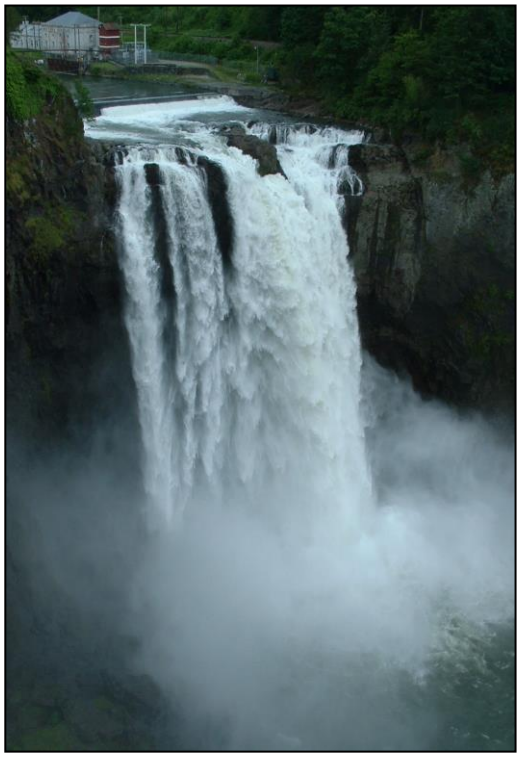
- Protect groundwater quality and quantity used for public water; and
- Guide corrective action to mitigate discharges polluting waters of the state, including those entering the Puget Sound, while reviewing & coordinating and flooding, drainage and stormwater run-off with other jurisdictions.

Goal 5: ***The health, beauty and ecosystem services provided by the City's natural environment are protected and enhanced, and potential hazards to citizen health, welfare and property are minimized.***

"Social and environmental goals cannot be achieved without economic prosperity — and achieving prosperity is highly related to social well-being and environmental quality."
– PSRC Vision 2040

B. DRIVING FACTORS: ENVIRONMENT

One of the central environmental concerns in Snoqualmie is one of the oldest concerns in Snoqualmie: Flooding. Although the City has always been susceptible to flooding, climate change portends the possibility of more frequent large-weather events and overflows of the Snoqualmie River, which has impacts not only on water quality, but also residents and businesses. The city plans to continue mitigating for flood damage, and helping citizens navigate FEMA rules on frequently flooded areas.



Snoqualmie Falls

Another large driver in local environment is climate change, with more regulatory bodies (and grant funds) requiring climate change planning. Part of the challenge in addressing climate change mitigation is that, despite immediate concerns, many solutions require time and funding to develop. There are also many external stakeholders outside of direct government control that influence state, regional and local greenhouse gas emissions. Interrelated with the concerns of time, funding and external stakeholders, transportation and daily commutes plan a large role in emission-tonnages, and will be a challenge in redressing to reduce emissions overall.

Another driver in environmental planning is the significant amount of open space within the city. With Meadowbrook Farm, Three Forks Natural Area, and the Snoqualmie Preservation Initiative lands, the city has over 620 acres of open space, including several acres throughout Snoqualmie Ridge and Downtown. Open space management, including the reduction and control of invasive species and support for healthy open spaces that help habitat to thrive, is another challenge the city may face in the near future. In addition, there is a substantial urban forest woven through the city that requires proper care. Urban forests provide multiple benefits to citizens in stable housing prices, quality of life, and even increased retail sales – however the urban forest requires proper management to maintain public and ecosystem health

Last, but not least, stormwater management will take on increasing importance in future years, including supporting natural drainage design in the built environment where feasible, and maintaining the City's hard stormwater infrastructure, to help maintain with the city NPDES II stormwater permit.

C. SUSTAINABILITY

As defined by the Brundtland Commission,

> *"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."*

Snoqualmie residents, elected and appointed officials, and staff place a priority on sustainable land use and building practices, resilience of our natural systems, and reducing the city's carbon footprint. In 2010 the City adopted the Snoqualmie Sustainability Strategy, dedicating the new city Hall that same year, which was built to green standards with radiant floor heating, low-flow water fixtures and Green Labeled carpets with recycle content. By 2013, the City had made significant progress on 23 (and moderate progress on another 12) of the 77 recommendations in the Snoqualmie Sustainability Strategy. The City intends to continue implementing the Sustainability Strategy, recognizing the importance of contributing to sustainability in public projects. However, the overall impact from City operations alone is small; if the community is to make a significant difference in its impact on local and global systems, it will largely be due to individual and household choices. As such, the City continues to focus on implementing the sustainability strategy in city plans and internal operations, an well as in public programs and providing educational information to help households and businesses make sustainable decisions.

Snoqualmie Sustainability Strategy

In January 2010 the City adopted the Snoqualmie Sustainability Strategy by Resolution 934, which provides 77 City recommendations across 12 sectors:

- Flooding & Climate Change Hazards
- Energy Efficiency
- Solid Waste and Sewage
- Ecosystem Protection
- Land Use
- Green Infrastructure and Water
- Mobility
- Green Buildings
- Health & Food Security
- Economy
- Social Equity
- Supporting Programs

An additional emerging concept within sustainability is resiliency, or the power to return to one's original form after facing an adverse occurrence, or a sudden change in the environment. Examples of increasing resiliency in local economic and environmental sustainability would be: diversifying a tax base more with encouraging a balance between commercial & residential property when feasible; supporting urban agriculture and food storage for adequate nutrition during emergency situations; supporting local power generation to reduce impacts from varying fuel prices; encouraging a varied business base so that no hit to one individual industry will have a disproportionate effect on the local economy; and supporting emergency planning and citizen preparedness in case of flood events

C.1 ADDITIONAL PLANS & PROGRAMS

In addition to the Snoqualmie Sustainability Strategy mentioned above, various additional plans and programs buoy, expand and help implement sustainability in the City.

Shoreline Master Program

Shorelines in the City are planned for under the Shoreline Master Program, which is incorporated as Element 10 of this Comprehensive Plan, and regulated by the Shoreline Management Regulations (SMC 19.08) and additional applicable development regulations of the Municipal Code. The Shoreline Master Program implements the requirements of the Shoreline Management Act of 1971 and regulates development activities along and within City-designated shorelines.

Hazard Mitigation Plan

In addition to those natural hazards identified in this Element, the City of Snoqualmie prepared a Hazard Mitigation Plan in 2003 to evaluate and plan for a number of natural hazards, including flooding, landslides, severe local storms, fire and earthquakes. The plan provides a vulnerability assessment of uses and capital facilities for each of the hazards, and provides mitigation policies and strategies to address the issues of vulnerability. The plan contains an action program that identifies specific projects to implement the recommendations of the mitigation policies and strategies. This Environment Element, and the Snoqualmie Vicinity Comprehensive Plan, references and incorporates the Hazard Mitigation Plan.

Greenhouse Gas (GHG) Inventory

Between 2010- 2011 the city developed a draft GHG Inventory of Community and Municipal Operations, using the earliest available data sourced from 2007. Formal adoption of the GHG Inventory was put on hold to complete work on the City Comprehensive Plan, though the material will be ready for CIty Council review and consideration in 2014.

D. CLIMATE CHANGE

> *"…the effects of climate change are already being felt in the state of Washington in the form of average yearly temperatures rising faster over the 20th Century than the global average, mountain glaciers in the North Cascades losing up to a third of their area since 1950, snow pack in the Cascades declining by 35%, peak spring river runoff occurring 10 to 30 days earlier and the proportion of stream flow that arrives in summer decreasing as much as 34% in sensitive river basins…"*
>
> – Executive Order 07-02

Former Governor Gregoire and Washington State, in recognition of the earth's changing climate and its probable profound impacts, committed to significantly reduce the State's contribution to climate change through Executive Order 07-02, the *Washington Climate Change Challenge* and Washington State Legislature, HB 2815 – 2007-08. Current Governor Inslee has initiated Climate Legislative and Executive Workgroup to recommend actions and policies to meet state emission reduction targets. Extensive research by the International Panel on Climate Change (IPCC) and University of Washington Climate Impact Group confirmed that Washington State's climate is changing, and potentially far-reaching impacts. Although Washington is working to significantly reduce its climate emissions, some changes are likely inevitable; one scenario for the Puget Sound region could result in hotter, drier summers; wetter winters with increasing rainfall and rain intensity; and increases in extreme weather events. Additional potential hazards include increased chances of wildland/urban fires, heat waves, insect infestation, drought, potable water shortages, erosion, landslides and flooding.

As part of its commitment to the ICLEI five milestone process with the passage of Snoqualmie Resolution 955, the City plans to adopt greenhouse gas reduction targets and develop a Climate Action Plan to achieve carbon reductions. With a growing population and increased use of nonrenewable resources, achieving emission reductions will require smart planning, assertive grant applications, and partnerships to provide education and regional programs to help private citizens and businesses make wise energy decisions. The City has helped foster these efforts by signing on to the Mayor's Climate Protection Agreement, and by working with such groups as the K4C, the King County-Cities Climate Collaboration.

The *U.S. Mayors Climate Protection Agreement***,** states that cities will strive to meet or beat Kyoto Protocol emission targets; over 1,060 mayors have signed.

The *King County-Cities Climate Collaboration (K4C)* is a group of cities pledged to coordinate on outreach and grants toward climate solutions; it includes Issaquah, Kirkland, Mercer Island, Redmond, Renton, Seattle, Shoreline, Snoqualmie & Tukwila.

As of 2008, Washington State GHG reduction targets (RCW 70.235.020) are:

- By 2020, reduce GHGs to 1990 levels.
- By 2035, reduce GHGs to 25% below 1990 levels.
- By 2050, reduce emissions to 50% below 1990 levels.

Many County and City emission targets provide different targets for government- and community-based emissions, and use a later target year than 1990, partially due to data availability. The 2012 King County Comprehensive Plan states that it will work with partners to reduce its countywide greenhouse-gas emissions by at least 80% below 2007 levels by 2050, a target effectively larger than that set by Washington State. The 80% GHG emissions reduction target is based on the consensus developed over the last decade with IPCC and participating nations that to avoid the most devastating impacts of climate change, global temperature increases should be limited to no more than ~2°C since the beginning of the 20th century, requiring a global emissions reduction of roughly 80% by 2050. Future climate action plans for Snoqualmie will have to incorporate relevant science and local context in both helping guide emission reduction targets, and the steps necessary to achieve them in the coming years.

E. AIR QUALITY

Although Snoqualmie is relatively free from air pollution, the larger Puget Sound region has ongoing concerns regarding degraded air quality. With the enactment of the Clean Air Act of 1970, the U.S. Environmental Protection Agency established National Ambient Air Quality Standards (NAAQS) for "priority pollutants." Given the upper Snoqualmie Valley's rural nature, the City's probable concern pollutants are ozone, carbon monoxide and particulate matter.

Particulate matter consists of fine particles of smoke, dust, pollen or other material that remain suspended in the atmosphere for a substantial period of time. In contrast, ozone and carbon monoxide (CO) are the main pollutants associated with vehicle traffic, with pollutant concentrations elevated during periods of traffic congestion. As existing city traffic is generally-free flowing and volumes are low, CO levels currently fall within federal standards. Unlike carbon monoxide, ozone does not reach peak levels closest to the source of emission, but rather at downwind locations. More than 80 percent of the fine particulate concentrations in the Olympia area are linked to wood-burning in stoves and fireplaces, according to studies by the Department of Ecology; wood smoke also contributes to carbon monoxide levels. Newer development in Snoqualmie Ridge and other areas prohibited wood-burning fireplaces or stoves in homes, and the City continues to take additional action to reduce air pollution in other city areas, and from vehicle traffic.

F. SURFACE WATER

Snoqualmie lies in the Puget Sound lowland region and experiences a typically mild maritime climate. Average annual precipitation in the City is 61 inches (in contrast, Snoqualmie Pass receives an average of 105 inches of precipitation per year). Precipitation in the 375 square mile-watershed above Snoqualmie is strongly influenced by surrounding mountain ranges, with notable winter and spring peak flows, and draining from lands that sometimes contribute pollutants of sediment to city waterways. Water resources in the City and its UGA include rivers, streams, natural drainage courses, wetlands, floodplains and aquifers. These resources are important for multiple purposes, including wildlife habitat, power generation, recreation, potable water and waste water disposal. In some cases the City must protect itself from some of the negative impacts of the downtown location near a river, such as flooding. Water resources can be managed for multiple uses, many of which are addressed in the following Section G. *Sensitive Areas*.

Stormwater Strategies (LID)

Various strategies may help improve the stormwater discharge quantity and quality:

- Minimize street widths, with reduced but adequate parking, to minimize impervious surface coverage.
- Encourage the use of pervious paving for parking lots, sidewalks, driveways, alleys and low-use roadways.
- Utilize bio-retention catchment in the parking lot and roadway designs to filter site runoff.
- Encourage alternative stormwater dispersal/ collection methods, such as roof gardens, roof rain-dispersal grates rather than gutters.
- Encourage stormwater collection on-site for flushing toilets and irrigation.
- Limit soil disturbance (clearing & grading) outside of the building footprint on newly developed sites.
- Reduce compaction and restore infiltration capacity on already cleared sites whenever practical.

The quantity and quality of surface water leaving a developed site must be managed to limit receiving water body impacts, such as flooding, siltation, pollutant runoff and increased temperatures. Traditionally, stormwater is controlled using drainage systems and detention ponds that collect site runoff from impervious surfaces. Detention ponds help to settle sediments and regulate stormwater discharge, but have several disadvantages such as costly construction; regular maintenance needs for proper operation; drainage basin flow regime changes; increased temperatures of waters leaving a site; and lacking filtration for fine suspended solids and chemical runoff.

Cities throughout the Puget Sound Region are beginning to use new land development and stormwater management approaches termed "Low Impact Development" (or LID), which combine a site's natural features with best management practices to minimize and manage runoff at the source. Rather than directing rainfall runoff to constructed ponds that remove pollutants and then discharge to streams/wetlands, LID strategies integrate site design, landscaping, natural hydrologic functions and other techniques to reduce runoff, and infiltrate rains to underlying soils and groundwater – as close to where it hits the ground as possible. LID uses several different practices and design techniques(some of which are detailed at right). There are also increasing requirements relating to LID in municipal storm water permits. According to the federal Clean Water Act, urban areas that collect stormwater runoff in municipal separate storm sewers (MS4s) and discharge it to surface waters are required to have a NPDES permit,[1] or a National Pollutant Discharge Elimination System permit. In Washington there are two municipal stormwater permit program phases, phase I for medium and large cities, and phase II permits for small MS4s. The Department of Ecology (DOE) handles permit

[1] US EPA, "Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s)," http://cfpub.epa.gov/npdes/stormwater/munic.cfm; last update 07/24/2013.

requirements, and as of their updated 2013-2018 permit, Snoqualmie was required to obtain coverage. The City applied for NPDESII permit coverage, which became effective as of Aug. 1, 2013. New permit holders must comply with increasing requirements over a five-year period, including catch basin cleaning, storm sewer inspections, detecting illegal discharges to storm drains, public education and code modification.[2]

River & Stream Corridors

The main stem Snoqualmie River, Kimball Creek and Coal Creek are the dominant watercourses in the city and UGA. The Snoqualmie River originates in the Cascade Mountains and is formed by the junction of its North, Middle and South Forks, each fork descending through narrow mountain valleys to their mutual confluence at the foot of Mount Si, about one mile upstream from Snoqualmie. Kimball Creek, a tributary to the Snoqualmie River, begins on the northeast side of Rattlesnake Mountain, feeding a large wetland south of and adjacent to I-90, and enters the Snoqualmie River just above the Falls. Coal Creek, which begins on the north slope of Rattlesnake Mountain, is a tributary to Kimball Creek.

River and stream corridors, also referred to as riparian corridors, consist of the river or stream channel itself, and its associated regulated buffer. These corridors, including intermittent and ephemeral drainage courses, serve beneficial purposes such as supporting a multitude of fish and wildlife, purifying surface waters, stormwater storage and regulation, groundwater recharge, as well as providing recreational opportunities and aesthetic value. Development can disturb these natural drainage systems if not property mitigated. These natural drainage courses are regulated by the City's Surface Water and Stormwater Management Regulations (SMC 15.80) in addition to the Sensitive Areas Ordinance. Stream courses are regulated according to established categories, depending on the flow of the stream, its seasonal continuity, and whether the stream is used by salmonids, affecting buffer width and other development regulations. Additional objectives and policies covering shorelines of the state are found in Element 10, *Shoreline Master Program*.

G. SENSITIVE AREAS

All Washington cities and counties are required to adopt sensitive areas regulations by the GMA, which was amended in 1995 to require that the best available science be used in developing policies and regulations to protect critical area functions and values.[3] All jurisdictions are required to review, evaluate and, if necessary, revise their critical areas ordinances according to an update schedule.

According to GMA, Sensitive Areas include:

- Critical Aquifer Recharge areas;
- Fish & wildlife habitat areas;
- Wetlands;
- Frequently flooded areas; and
- Geologically hazardous areas.

These are largely regulated in SMC 19.12, the City's Sensitive Areas Ordinance; the 100-Year Floodplain and related construction issues are regulated by Flood Hazard Regulations SMC 15.12.

There are qualitative differences between various sensitive areas; some are sensitive because of the hazard they present to public safety, while others are sensitive due to essential functions they perform for the welfare of natural systems. In some cases, the risk posed to the public or natural system by a sensitive area's development can be mitigated or reduced by engineering or site design. In other cases, the potential for risk or negative impacts can only be effectively reduced by avoiding the sensitive area. Due to their very nature, these sensitive areas require special planning and regulation in order to protect their functions and values. Figure 6.2 *Sensitive Areas* depicts sensitive areas within the City and urban growth area.

G.1 FISH AND WILDLIFE HABITAT AREAS

As discussed throughout this element, river and stream corridors, wetlands, floodplains and other sensitive areas provide important habitat for diverse plant and animal species, and protecting these natural features is critical to sustaining wildlife within and around the City. Wildlife habitat conservation can be integrated with human development through appropriate regulation, sensitive site design, considering land use actions that affect wildlife habitat, and minimizing conflicts in the interaction between wildlife and land use.

[2] WA Department of Ecology, "Municipal Stormwater General Permits,"
[3] See RCW 36.70A.060; 36.70A.172; defined in RCW 36.70A.030 (5); best available science also cited in WAC 365-195-900 & 365-195-925.

It must be remembered that wildlife does not respect jurisdictional boundaries. The protection of wildlife and wildlife habitat must therefore be coordinated between adjacent jurisdictions and landowners. Maintaining linkages between cohesive blocks of habitat is also crucial for wildlife movement, but can be challenging. Further study and agency coordination is necessary to identify key habitat areas and opportunities to protect or provide linkages. Such linkage networks can also support multiple functions and benefits. Finally, it is important that regulation consider protection of common habitat as well as habitat for priority species, such as those that are threatened, endangered or sensitive, as identified in the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) program.

Pre-dawn Elk on Meadowbrook Farm. Photo courtesy of Jim Reitz, used with permission.

G.2 WETLANDS

Wetlands are areas inundated or saturated by groundwater or surface water at a rate and duration sufficient to support prevalent vegetation adapted to saturated soils. Freshwater wetlands such as bogs, marshes, swamps, wet meadows, scrub-shrub and forested systems are widespread west of the Cascades, occurring both as isolated wetlands or in association with rivers, streams, lakes or ponds. Due to adjacency to the river and downtown Snoqualmie's floodplain location, there are several significant wetlands in the City, including ox-bow ponds and old Snoqualmie River channels.

Wetlands provide many observable benefits to the community, including recreational activities like hiking, hunting, fishing and nature study. The fish and wildlife benefits of wetlands are also readily visible, providing essential nesting, feeding, breeding and hiding places, helping make them among the most productive biological systems. Wetlands also perform multiple, important ecological functions that are not as visible to the human eye, such as improving water quality by filtering out sediments, excess nutrients and toxic chemicals; stabilizing shorelines and reducing streambank erosion; and often helping recharge ground water supplies and maintaining stream flows. Perhaps most importantly for Snoqualmie, though, is that wetlands store and slow flood waters, thereby moderating flood flows.

Wetlands were once traditionally regarded as lands of little or no value, unfit for productive use, leading to various destructive activities that caused a significant loss of wetland resources. It is estimated that 31% of the state's 1.35 million wetland acres have been lost to development since the 1780's (down to 980,000 acres), and losses continue annually; the U.S. is estimated to lose 70,000 to 90,000 acres each year, with many more wetlands significantly degraded.[4] The most common destructive wetland development activities are clearing, dredging, draining and filling,

[4] Sheldon, Diane, et al., "Wetlands in Washington State, Volume 1- A Synthesis of the Science,". Department of Ecology, Publication #05-06-006 March 2005. https://fortress.wa.gov/ecy/publications/publications/0506006.pdf Chapter 7, Page 7-3

which destroy habitat and diminish the wetland's capacity to store floodwater, therefore potentially increasing flooding, erosion and related damage.

Major causes of wetland loss and degradation are:

- Urban growth (roads; commercial & residential development, roads)
- Dikes and other construction barriers
- Erosion, pollution and siltation from increased stormwater runoff and construction activities
- Invasion of exotic plants and animals that reduce habitat values for native species
- Forestry and agricultural practices

Wetlands are protected in the SAO via required buffers for each wetland category, providing an undisturbed corridor to protect functionality; disturbance or alteration of wetlands and their buffers is to be avoided, with few exceptions.

Meadowbrook Slough, Class 1 Wetland

G.3 FREQUENTLY FLOODED AREAS

Flooding is also discussed in Element 4 Housing *Section F, Floodway and Floodplain Housing*, and Element 7 Land Use *Section F, Floodplain Land Use*.

Flooding has shaped the upper Snoqualmie Valley, providing wildlife habitat and rich agricultural lands that humans have historically settled for farming. However, human development can interfere with the natural process of flooding and vice-versa, affecting drainage patterns and sometimes resulting in either inconvenience or catastrophe. Flood problems typically increase as human activities encroach upon floodplains and watersheds.

The Snoqualmie River is one of the few remaining undammed rivers in the State, and as such it experiences the largest peak flows of any King County river. Snoqualmie River's runoff and drainage is influenced by its mountainous watershed. The monthly hydrograph shows peaks in December, May and June, reflecting the late autumn and early winter heavy precipitation, which falls as rain or readily melted snow over much of the basin. Generally cooler weather during January and February results in a greater snowpack accumulation and reduced runoff, followed by a classical snowmelt runoff peak in late spring. Late summer to early fall show minimum flows.

The combination of high annual precipitation and melting snow in the upper Snoqualmie River basin contributes to significant fall and winter flooding potential. As the rivers carrying runoff out of the basin are in steep valleys, flood waters collect on the flat valley floor where Snoqualmie is located. Although the City occupies less than one percent of the entire river basin, its location close to the basin outlet (Snoqualmie Falls) makes it vulnerable to major flooding which can damage businesses, homes or other property. City floods can be particularly severe for the following reasons:

- The majority of the existing historic City is located in the floodplain of the Snoqualmie River.
- The City is located just downstream of the confluence of the three forks of the Snoqualmie River, thus receiving the full brunt of combined flows.
- Just downstream of the City, the river flows through an area of bedrock prior to discharging over Snoqualmie Falls, where bedrock constrictions block flood flows and frequently cause backwater flooding to occur.
- Kimball Creek flows through the City and into the Snoqualmie River just upstream of the bottleneck of the Snoqualmie River at Snoqualmie Falls. During flood events, the creek cannot flow out due to high water levels in the river, creating a backwater flooding effect.

Snoqualmie Floods

Flooding has played a major part in the history of Snoqualmie and the entire Valley. Major floods of record occurred in 1932, 33, 43, 47, 51, 59, 64, 75, 77, 86, 89, 90, 95, 96, 06 & 09.

These floods caused millions of dollars in damage and loss of life. The Army Corps of Engineers estimated the average annual cost of flood damage in the Snoqualmie Valley to be over three million dollars (in 1981 dollars).

Flood Hazard Regulations & Areas

Primary responsibility for flood damage reduction policy resides with King County. The City is responsible for enforcing local regulations required by Federal and State law, and that are consistent with King County regulations. King County flood damage reduction policies are embodied *King County Flood Hazard Reduction Plan*, recently updated in 2013. The City continues to cooperate with King County in its efforts to find solutions to City flood hazards.

Development within the 100-year floodplain is currently regulated by the City's Flood Hazard Ordinance (SMC 15.12), adopted in 1985, which regulates new floodplain and floodway construction (with additional regulation in SMC 15.18, Surface Water &Stormwater Management). All new residential construction in the floodway is prohibited per state law, and all new structures in the floodplain must be constructed with the main floor elevated above the 100-year base-flood elevation per FEMA requirements. The City also requires the creation of compensatory storage for any new fill in the floodplain, and encourages property owners to raise existing homes above the 100-year flood level.

Flood hazard areas in Snoqualmie are defined as the area subject to inundation by the 100-year flood, or the area that has at least a one percent probability of inundation in any given year. Streams, lakes, wetlands, and closed depressions all have floodplains that may also qualify as flood hazard areas. A flood hazard area consists of the following:

- *Floodplain*: The floodplain is the total area subject to inundation by the 100-year, or base, flood.
- *FEMA Floodway***:** The Federal Emergency Management Agency (FEMA) floodway is the channel of the river or other watercourse, and those floodplain portions, that must be reserved to discharge base floodwaters without cumulatively increasing the water surface elevation more than one foot.

The floodway and floodplain are delineated on the FEMA Flood Insurance Rate Maps for the Snoqualmie area.

In addition to floodplain and floodway concerns, the Channel Migration Zones (CMZ) of the South Fork Snoqualmie River and Snoqualmie River present significant erosion and evulsion hazards during flood events. CMZs refer to a river's likely lateral movement, based on evidence of active movement over the past century. Snoqualmie CMZs have been mapped by King County,[5] depicting areas of potential, moderate, and severe hazard for channel migration. Most Snoqualmie CMZs are east of the abandoned railroad line east of Meadowbrook (the Snoqualmie Valley Trail), consisting of portions of Three Forks Natural Area, Meadowbrook Farm and the Mt. Si Golf Course. To minimize potential channel migration hazards, uses within the CMZ should be limited to parks and open space uses.

History of Flood Control Efforts

Floods occur when Snoqualmie River flows exceed 30,000 cubic feet per second (cfs). In the past decades, the City has experienced several severe floods that have resulted in millions of dollars in public and private property damage. Following a major 1959 flood, the State requested federal assistance to reduce Snohomish River Basin flood hazards. In 1960, Congress authorized a feasibility study, which the Army Corps of Engineers executed, producing a final report in 1969 that recommended a major multi-purpose dam on the Middle Fork Snoqualmie River. The proposal met with strong public opposition based on concerns to impacts to Middle Fork's recreation activities, and the potential for increased development on downstream farmland.

Rescue during Flooding of the Snoqualmie River, 1990.

In 1974 Governor Evans recommended a mediation process to resolve conflicts between interest groups and to reach agreement on how to solve flooding problems. The result of that process was an agreement titled *Recommendations for Comprehensive Land Use Planning and Flood Control for the Snohomish River Basin*, otherwise known as the

[5] Channel Migration in the Three-Forks Area of the Snoqualmie River Study, January 1996. http://your.kingcounty.gov/dnrp/library/water-and-land/flooding/mapping/king-county-snoqualmie-river-three-forks-channel-migration-study-map-1996.pdf

Snohomish Mediated Agreement (SMA). The key elements of the SMA which affected the upper Snoqualmie Valley were:

* A multi-purpose dam on the Snoqualmie River's North Fork;
* Levees in the Snoqualmie-North Bend area; &
* Establishment of Three Forks Park.

In 1978, state and local governments, including Snoqualmie, signed an agreement to carry out the SMA and created a 29 member Basin Coordinating Council. At the same time, the Corps of Engineers began studies on the structural flood control projects recommended in the agreement.

By 1985, the Corps concluded that the North Fork Dam and the Snoqualmie levees were not economically feasible and the Basin Coordinating Committee had dissolved due to lack of progress on the SMA's structural flood control elements. At the request of King County and Snoqualmie, the Corps resumed its study of city flood reduction options. By mid-1987, the Corps had selected channel widening and overbank excavation as the preferred alternative. While their analysis indicated flood level reductions of up to 3.2 feet for the 100-year flood, the channel widening and overbank excavation project was also expensive, at an estimated cost of $5,777,000, of which 25% would need to be paid by King County and the City of Snoqualmie. Furthermore, possible changes in downstream flood peaks, which the Corps analysis indicated would be slightly higher and arrive about one hour earlier, generated concern for cities below the Falls. It was also anticipated that there would be significant riparian habitat and wildlife impacts. Action was postponed.

In 1989, under the authority granted by Section 205 of the 1948 Flood Control Act (which authorizes the Corps to study and construct small flood control projects), King County and Snoqualmie asked the Corps to resume the study. The Corps concluded that channel widening and overbank excavation was feasible, but analysis or design required a cost-share contract. Ultimately the City and King County signed an Interlocal Agreement to share costs, each covering 17.5% of the total project to match Army Corps of Engineers funding for the *Army Corps of Engineers Snoqualmie River at Snoqualmie Flood Damage Reduction Project*, commonly referred to as the Corps 205 Project. The final project cost of the "3 element plan", about $3.3 million, led to excavation of about 340 linear feet of right bank widening of the Snoqualmie River just upstream of Snoqualmie Falls, and about 500 linear feet of left bank widening just downstream of the Highway 202 bridge that constricted water flow during flood events. The widening project was completed in 2004 and projected to reduce the flood peak flow of the common 5-year flood by 0.7 feet, the 50-year flood by 1.1 feet, [6] and the 100-year flood by 1.6 feet. A third project element, the removal of the abandoned (and collapsed) railroad bridge crossing the river upstream of the SR-202 bridge, was not completed due to project delays and cost, though the trestle was removed.

The collapsed bridge from the 1936 fire (2010).

From 2009 to 2013, PSE facilities at Snoqualmie Falls underwent a major redevelopment to ensure and improve the continued production of clean electricity. Among multiple site improvements, the project provided more efficient water intake structures to the Plant 1 & 2 turbines, and removed fill material (and a degraded bulkhead at Plant 1) along the river's south bank. The PSE new diversion structure replacement, two feet lower than its predecessor, was projected to help reduced upstream flooding, while the removed fill was proposing to restore the river channel to pre-1920 conditions. The PSE project was assessed to provide a 6- to 8-inch reduction in 100-year floodwaters from the redevelopment, according to hydrological studies.[7]

The net combined impact of both flood reduction projects is estimated to be approximately 2.2 – 2.4 feet lower for the 100-year floodwater level.

[6] King County, Flooding Services, "Fact Sheet: Snoqualmie Flood Reduction Project," http://www.kingcounty.gov/environment/waterandland/flooding/snoqualmie-205-project/factsheet.aspx, accessed February 28, 2014

[7] Puget Sound Energy (PSE), "Questions & Answers, Redevelopment of Snoqualmie Falls Hydroelectric Project," page 3.

G.4 CRITICAL AQUIFER RECHARGE AREAS

In 1990 DOE designated East King County, including the Snoqualmie planning area, as Ground Water Management Area No. 14, pursuant to RCW 90.44. A stakeholder group was convened and resulted finally in the 1998 East King County Ground Water Management Plan Strategies.

Ground water provides an important source of domestic water for Snoqualmie and its urban growth area. It is contained in underground aquifers, which are sub-subterranean layers of porous rock or earth, and delivered through such means as springs and wells. Most aquifers are replenished, or recharged, by rainwater. Two distinct aquifer systems have been identified in the City – a shallow unconfined aquifer associated with the Tokul Creek alluvial fan, and a deeper aquifer located in sand and gravel deposits. The shallow aquifer occurs at depths less than thirty-five fee with production limited to small domestic wells, yielding approximately 7.5 gallons per minute (gpm). The deep aquifer occurs at depths of approximately 70 to 170 feet, confined or partially confined and capable of producing a sustained, moderate volume of water, ranging from 24 to 60 gpm. Well log data indicate that the shallow and deep aquifers are separated by fine-grained, low-permeability soils. At this time, there is no data to indicate the two aquifers are connected. The shallow aquifer is primarily recharged by local infiltration; Primary recharge areas for the deeper aquifer have not been identified, but are suspected to be located some distance up the Snoqualmie Valley.

The Growth Management Act requires cities and counties to classify aquifer recharge areas according to vulnerability, or the combined effect of hydro-geological susceptibility to contamination, and the potential for contamination. A highly vulnerable recharge area would have existing or allowed land uses that could contribute contaminants, and hydrologic conditions (e.g. very porous, well drained soils) create high infiltration rates that facilitate contamination. Low vulnerability is indicated by land uses that do not contribute contaminants that will degrade ground water, and hydrogeologic conditions that do not facilitate degradation. Development can threaten both the quantity and quality of ground water resources. Once ground water is contaminated it is difficult, costly and sometimes impossible to restore. Groundwater resources must be protected from contamination to assure potable water supplies, prevent potential risks to public health and avoid costly corrective measures.

G.5 GEOLOGICALLY HAZARDOUS AREAS

Geologically hazardous areas are lands which are susceptible to hazards associated with underlying soils and geology, and include landslides, erosion seismic events, soil subsidence and steep slope failure. Development in geologically unstable areas can pose threats to people and property, increase public costs and jeopardize important ecological and hydrological processes.

Landslide & Steep Slope Hazard Areas

The SAO defines landslide hazard areas according to five criteria, or any area with:

- A combination of over 15% slopes, springs or ground water seepage, and impermeable soils (silt/clay) inter-bedded with granular soils (sand & gravel);
- Evidence of ground water seepage, & existing landslide deposits, regardless of slope;
- Evidence of movement from the Holocene epoch (10,000 years ago to present), or which is underlain by mass wastage debris of that epoch;
- Instability due to rapid stream incision or streambank erosion;
- Presence on an alluvial fan, presently or potentially subject to debris flows inundation or deposition of stream-transported sediments.

Slope stability in landslide hazard areas is highly dependent on the underlying soils' water content, and must be regulated appropriately. Many of Puget Sound's river valleys are bordered by steep slopes of unconsolidated glacial deposits, with landslide- susceptible soils posing a major development hazard and resulting in considerable property damage annually. Water readily drains through sand and gravel, but ponds on less-permeable clay, silt and till layers, which causes saturation of overlying soils. A storm event that increases groundwater flows, such as rain or surface water discharging above a slope, can saturate sediments near the surface and result in slope failure. Likewise, erosion along a stream channel can steepen a slope or expose deposits which may become saturated, thereby increasing the potential for landslides on stream channels. The City of Snoqualmie SAO prohibits development in steep slope areas, defined as where the ground inclines at forty percent or more in an elevation gain of under ten feet. Slopes of this magnitude occur in areas around Snoqualmie Falls, in the northern area of Snoqualmie Ridge and on the City's Rattlesnake Ridge property.

Identifying steep slope and landslide hazard areas is necessary to avoid the risk of injury, property damage and environmental degradation.

Erosion Hazard Areas

Erosion is the wearing away of land surfaces by water, wind or ice, though moving surface water is the dominant cause of erosion in the Puget Sound region. While erosion is a natural process, it can be accelerated by land use modification and development activities such as excavation, filling, clearing & grading, and unmanaged stormwater runoff. The susceptibility of soil to erosion depends on its physical and chemical characteristics, slope, vegetative cover, and rainfall intensity, and can result in degradation of water quality and aquatic habitats. The Sensitive Areas Ordinance defines erosion hazard areas as any slope with an inclination greater than fifteen percent, and with soils classified as severe or very severe erosion hazards as defined by the USDA Soil Conservation Service, King County Soils Survey, 1973.

Seismic Hazard Areas

The Puget Sound region is seismically active; hundreds of earthquakes occur each year. While most of these events are magnitude of 3.0 or lower on the Richter scale, earthquakes measuring up to 7.1 have been recorded, with studies suggesting that historic earthquakes of over magnitude 8.0 have occurred in the region. Several major faults are located in the vicinity of the Snoqualmie Valley. Small, shallow earthquakes up to magnitude 4.0 are likely to occur from Snoqualmie River Basin faults, though events of greater magnitudes are expected to occur infrequently. Most of the upper Snoqualmie Valley flood is a seismic hazard area in the King County Sensitive Areas Map Folio (1990).

The City's SAO defines seismic hazard areas as those areas subject to severe risk of earthquake damage as a result of seismically induced landslides, earth adjustments, settlement and soil liquefaction. Loose saturated soils tend to experience the most severe ground shaking during an earthquake, losing their ability to support a load when shaken; some soils actually flow like a liquid. Saturated sandy soils such as those on Snoqualmie River floodplain may be susceptible to liquefaction during large seismic events. The most effective method to assure protection from hazards associated with seismic events is the development of an earthquake disaster response plan that designates specific responsibilities to various city officials in the event of significant earthquakes. The plan should also identify the most likely locations for structural failure and casualties, including hazardous buildings.

H. RECYCLING, COMPOSTING & RE-USE

Cities and towns produce large quantities of solid waste, much of which citizens pay to have hauled away to landfills; recycling, composting and reuse are alternatives that utilize those resources while reducing the need for new raw materials. While many local governments have established effective curbside recycling and yard waste programs for residential areas, household recycling is just one step toward meeting the waste diversion goals. Commercial waste usually comprises more than half of the total waste stream, and sometimes multi-family housing and commercial properties do not have strong recycling or composting facilities for lack of adequate space. In addition, demolition and construction activities also present opportunities for reuse and recycling.

Strategies for Solid Waste Reduction

There are various actions that will help support city-wide recycling & composting programs.

- Offer incentives to residents to reduce the amount of material going into the waste stream via rate structures that increase with the amount of waste material collected.
- Require owners of new multi-family, commercial and industrial buildings, and encourage owners of existing multi-family, commercial and industrial buildings, to provide for composting collection as well as space for storing recyclable materials.
- Consider requiring the re-use and recycling of demolition debris where feasible in demolition activities undertaken by the City, and/or private entities.
- Coordinate with other agencies to provide educational materials and programs on composting for City residents.

I. URBAN FORESTRY

Tree canopy and significant trees are important factors for city livability, helping Snoqualmie retain its natural setting while benefiting residents and business. A 2011 brochure by the National Forest Service and US Department of Agriculture estimated that the average Pacific Northwest tree will provide $2,820 of services in its lifetime, or $48 net benefit annually, for home heating/cooling savings, air pollutant removal, health improvements, crime reduction, better business

and higher property values.[8] For commercial properties, it has been found that customer service ratings were about 15% higher for business districts with trees, and that average prices were between 9-11% higher for products in landscaped areas.[9] Residences also experience fiscal gains, with a mature tree capable of adding 10% to a home's property value – a benefit to the residents upon property sale, and a benefit to cities in municipal property tax revenues. [10] The environmental benefits of trees are well-documented; their leaves and needles filter air pollutants and intercept rainfall, reducing stormwater runoff and its consequent soil erosion, siltation and flooding risks. It is calculated that in one year, 100 street trees will remove 13 tons of carbon dioxide (CO2), 123 pounds of other air pollutants and catch about 54,900 gallons of rainwater.[11] They also provide bird and wildlife habitat, and grow food and materials for human use.

Urban Forestry is also addressed in the Snoqualmie 2012 Open Space Parks & Recreation Plan, *Appendix II. Urban Forestry Background.*

Like any other resource, urban forests and open spaces require wise management. If not well-tended, trees can pose risks when significant limbs or whole trees fall. Likewise the loss of trees in neighborhoods or business districts can negatively impact property values and customer attraction. The planning components typically recommended for municipal urban forest programs include resource assessment tools such as street tree inventories and canopy cover assessments; strategic or master plans with an urban forest vision and goals; and management plans for existing vegetative resources, such as street tree and open-space management plans. Since becoming a Tree City USA in 2010, Snoqualmie has assembled several components of the recommended management tools to begin managing its urban forest effectively, for maximum public benefit:

Street Tree Inventory
Snoqualmie received grants in 2010 and 2013 from the Washington State Department of Natural Resources (WA DNR) to begin its tree inventory, collecting data on approximately 5,000 trees. In 2014 Snoqualmie purchased Treeworks ™ software, a GIS based asset-management and inventory program, and will complete the total tree inventory in 2014. The City currently has an estimated 8,000 street trees, with more being added each year.

Canopy Cover Assessment
In 2012, Snoqualmie received a WA DNR Community Forestry Assistance Grant to develop a Canopy Cover Assessment. The CCA noted that the city has 43.7% tree canopy coverage (canopy cover is displayed on the next page in figure 6.1). While this canopy coverage is a relatively strong compared to other regional cities (local coverage varies from 13% in Tacoma to 48% in Issaquah), the City will not retain all of its existing coverage. Between 1998 and 2011, city canopy cover declined by 768 acres or 19%, mostly due to development; the City may institute programs to recover some of its previous lost canopy. The City will explore these issues & setting a canopy cover target as part of the 2014 Urban Forest Strategic planning process (see below).

Urban Forest Strategic Plan
Snoqualmie is in the process of preparing an UF Strategic Plan, again with assistance from a WA DNR Community Forestry Assistance Grant. This is a long term, broad level document that provides an assessment of existing management strategies, a future vision, and a set of goals and supporting strategies to meet this vision.

[8] Pacific Southwest Research Station (in partnership with the National Forest Service; US Department of Agriculture. "Trees Pay Us Back in the Pacific Northwest," May 2011. http://www.fs.fed.us/psw/programs/uesd/uep/products/18/812uesd_uep_tpub_PacificNorthwest.pdf
[9] "Trees in Business Districts: Positive Effects on Consumer Behavior," University of Washington, College of Forest Resources Center for Urban Horticulture
[10] Pacific Southwest Research Station, Ibid.
[11] Pacific Southwest Research Station, Ibid.

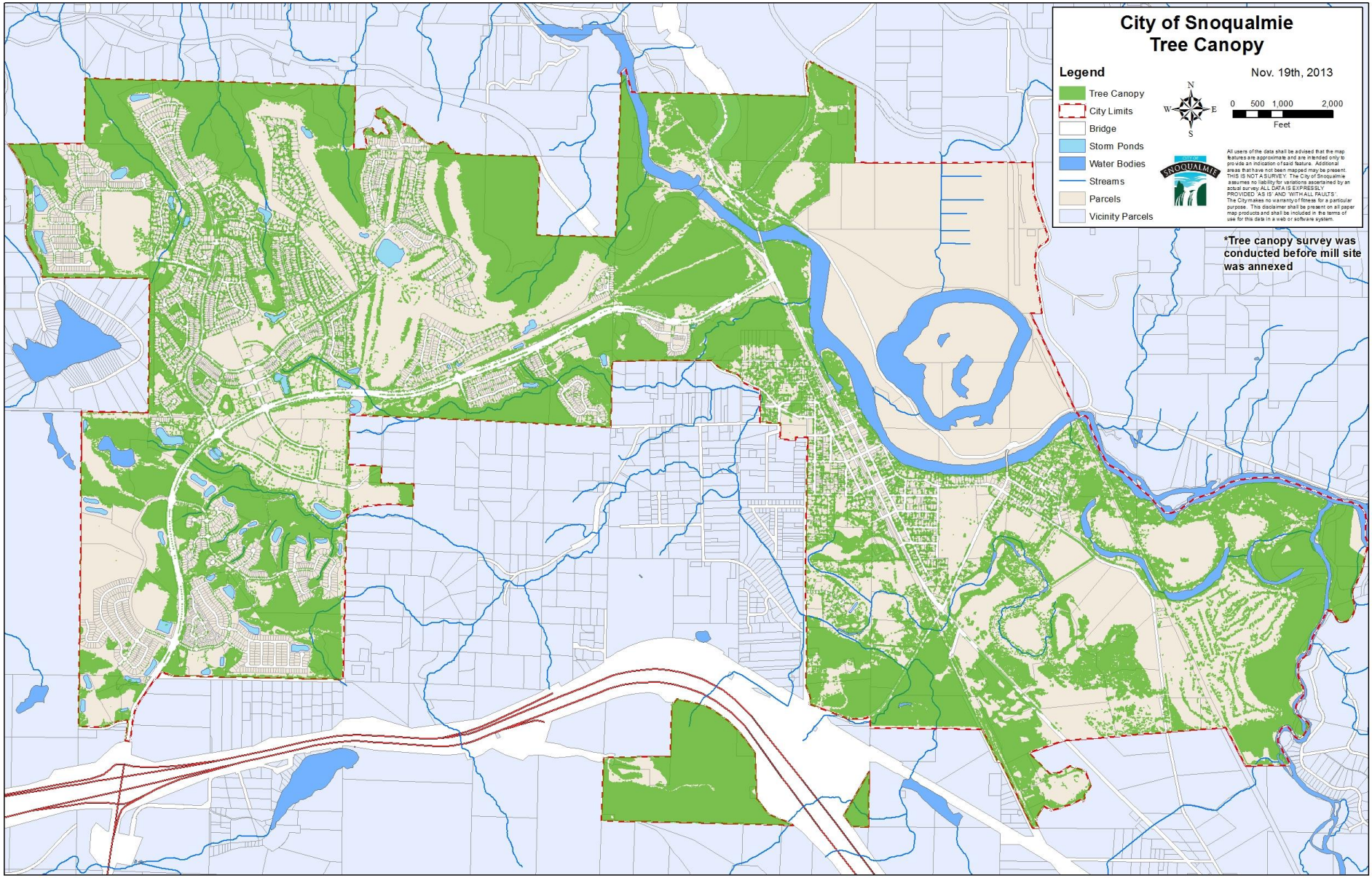


Figure 6.1 Snoqualmie Tree Canopy

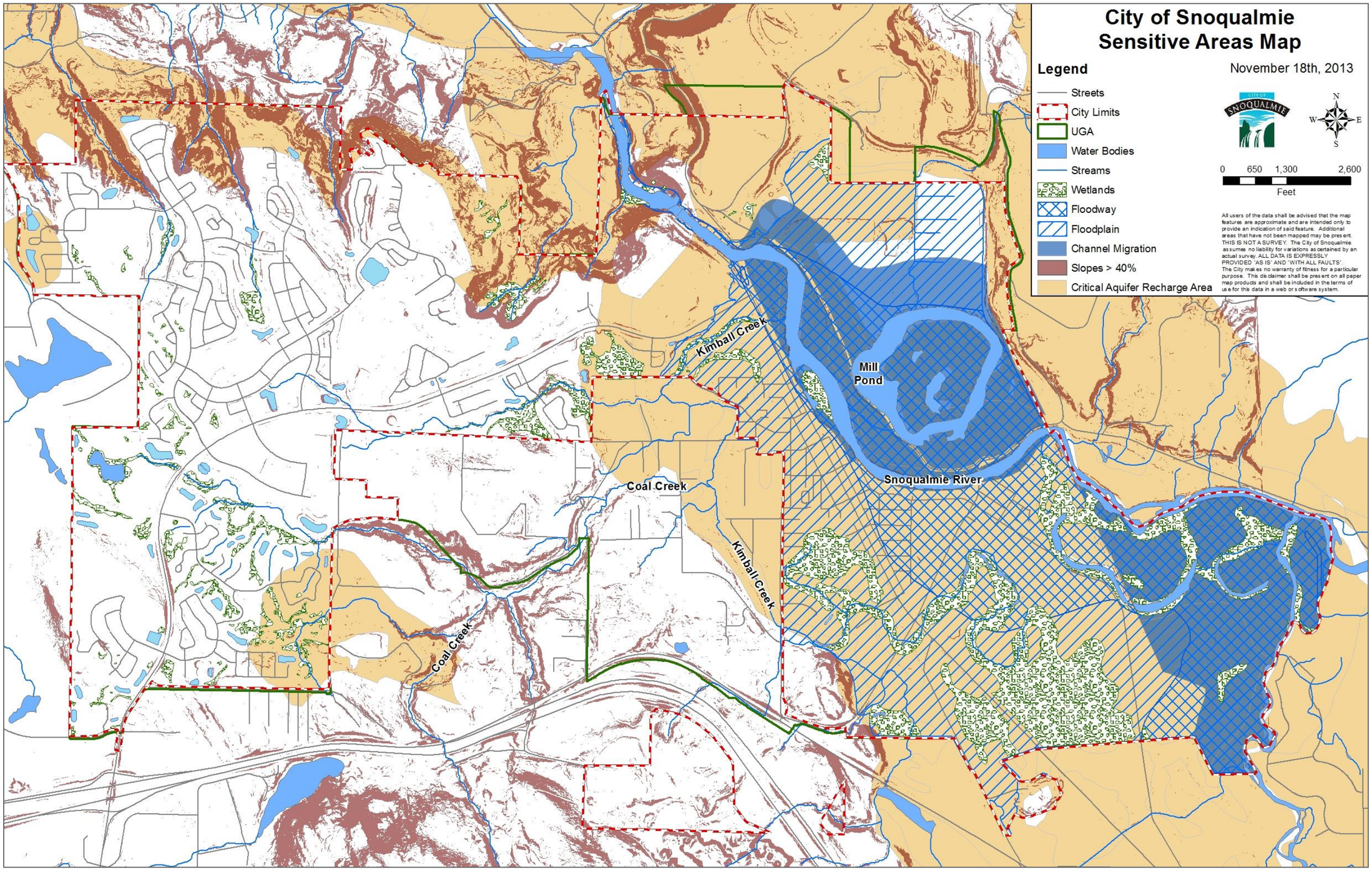


Figure 6.2 Snoqualmie Sensitive Areas

Land Use
Table of Contents

LIST OF TABLES

LIST OF FIGURES

A. INTRODUCTION

The Land Use Element is a long range guide to the physical development of the City and its urban growth area. It translates the City vision into a physical plan describing where and how to develop, redevelop and preserve the city through general land use designations. Land use designations provide residents and property owners predictability about the nature of land use planned in Snoqualmie, helping guide future land use development applications.

Goal 3: ***A balanced mix and arrangement of land-uses that advance the City's vision and goals for economic development, sustainability, community distinctiveness and active, healthy living.***

The Growth Management Act (GMA; RCW 36.70A.070) requires that the Land Use Element of the City's Comprehensive Plan include a plan, scheme or design for each of the following:

- The proposed general location and extent of land uses, where appropriate, for agriculture, timber production, housing, commerce, industry, recreation, open spaces, public utilities & facilities, and other uses;
- Population densities, building intensities, and future population growth estimates;
- Protection of the quality and quantity of ground water used for public water supplies;
- Urban planning approaches that promote physical activity (per ESSB 5186 passed in 2005); and
- Review of drainage, flooding and storm water run-off in the area and nearby jurisdictions, and guidance for corrective actions to mitigate or cleanse discharges that pollute waters of the state, including waters entering the Puget Sound.

GMA also requires adjacent jurisdictions to cooperate in comprehensive plan development, as comprehensive plans are to be coordinated and consistent with those of adjacent jurisdictions and with the countywide planning policies.

B. DRIVING FACTORS

All Comprehensive Plan elements are interconnected, which means that the issues underlying one element often overlap with other elements as well. For Land Use, issues frequently affecting housing and economic development also apply. A primary driver for Land Use planning is the suitability of land for different Comprehensive Plan goals, namely job generation for jobs-housing balance, as well as the provision of goods and services.

Jobs-housing balance, or the attempt to match jobs and housing within City limits in quantitative and qualitative terms, is a primary concern for land use planning; it is also discussed in Sections H & I of the Economic Development and Housing elements. Jobs-Housing balance requires that estimated employment types and jobs generation from land designations will sufficiently balance projected residential growth, in turn requiring diverse housing to accommodate different family types.

The suitability of land for developing retail, institutional and service-related uses to accommodate population projections is also a key concern for land use planning. One issue for the City is that there is not enough suitable land to meet current and future population needs, especially for retail uses. According to the 2011 Urban Growth Area analysis by CollinsWoerman, the City currently leaks an estimated 73% of its residents' retail spending to other communities, and capturing even two-thirds of the city's future retail leakage would require an additional 35 acres suitable for retail. While approximately 9.8 existing acres in the City and its UGA could be suitable for retail conversion, an additional 25.3 acres would still be required to accommodate projected 2032 demand.

A Broad Range of Uses

In 2009 under SHB 1825, the State legislature amended the Growth Management Act RCW 36.70A.110 to require that each city's urban growth area (UGA) include sufficient area for the broad range of uses needed to serve the projected population. The Final Bill Report noted the following for Comprehensive Plan amendments:

"Such amendments must include sufficient land capacity to accommodate medical, governmental, educational, institutional, commercial, and industrial facilities related to such growth, when appropriate under the circumstances existing within the planning jurisdiction."

A complication to Land Use suitability, and many land uses in the Historic Downtown, is the extensive flood plain and flood way area in the City, as well as water rights; both of these topics and their Land Use impacts are discussed in this element.

C. LAND USE OVERVIEW

The city is approximately 4,750 acres in size with roughly 878 acres remaining in the urban growth area (UGA). Due to constraints from wetlands, steep slopes, streams and stream buffers, there are 960 developable and re-developable acres remaining in the City and its current designated UGA. Approximately 7% of this area is considered re-developable; about a third of this land is planned commercial industrial area, while another 40% is designated for various residential uses. Table 3.1 summarizes City and UGA acreages; Table 3.2 gives land use designation acreages.

Table 7.1
URBAN GROWTH AREA ACREAGE

	ACRES					
	Total	**Developed***	**Constrained**	**Developable**	**ROW**	**Other**
City of Snoqualmie	4,750	1,056	2,958	327	401	8.5
Urban Growth Expansion Area	878	421	116	267	66	8.5
Total	**5,628**	**1,477**	**3,074**	**594**	**467**	**17**

**In Table 7.1, "Developed" includes the parcels classified as both developed and re-developable from in Table 7.2 below. Developable includes floodplain and unconstrained developable properties.*

Table 7.2
DEVELOPABLE LAND BY LAND USE DESIGNATION

Land Use Designation	Total Acres	Developed Acres	Sensitive Undevelopable	Re-developable (Occupied)	Vacant Fldpln. Developable	Vacant Developable	ROW/ Other	Total Developable & Re-developable
Single Fam.Res.	173	18	25	87	0	43	-	**130**
Constrained Res.	637	299	221	38	39	41	-	**118**
Planned Res.	189	56	4	33	0	96	-	**129**
Commercial	37	32	1	4	1	0	-	**5**
Office Park	148	69	6	20	0	54	-	**74**
Mixed Use	2,046	563	1,167	64	0	253	-	**316**
Open Space/Park	1,482	52	1,430	0	0	0	-	-
Utility Park	136	3	133	0	0	0	-	-
Plan. Comm/Ind	276	0	83	126	34	33	-	**192**
Resource Extract.	19	15	5	0	0	0	-	-
(ROW/Other)	484	-	-	-	-	-	484	-
Grand Total	**5,627**	**1,104**	**3,074**	**371**	**74**	**520**	**484**	**965**

Totals may differ between tables due to fractions. Blue text indicates land area with development and re-development potential. The location of land use designations are identified in Figures 7.3 through 7.6.

C.1 GROWTH MANAGEMENT BACKGROUND

The Growth Management Act requires participating counties to establish household and employment growth targets for each city, representing the minimum number of households and jobs a city must accommodate in its 20-year planning period. Cities demonstrate through the Buildable Lands Program that they have sufficient land in their Urban Growth Areas to accommodate the target. In 2009, the King County Growth Management Planning Council (GMPC) updated municipal targets, establishing a target of 1,615 minimum housing units and 1,050 jobs that Snoqualmie must demonstrate it can accommodate by 2031.

To demonstrate compliance via the Buildable Lands Program, a City counts the developable and re-developable acreage within the City and UGA, makes deductions for sensitive areas and their buffers, and public uses such as roads, utility right-of-ways and parks. The quantity of available land designated within each district is then assigned assumed housing densities or employment ratios to calculate the total number of housing units and jobs that may be accommodated.

While the City of Snoqualmie conducted a Buildable Lands analysis of residential land uses for its own planning purposes (see Land Use Tables 7.1 through 7.6), that analysis is unnecessary to demonstrate capacity to meet the housing target. Snoqualmie Ridge II, while approved in 2004, did not begin selling homes until 2006; its trajectory of 1,850 to 2,150 homes will more than accommodate the City housing target.

Snoqualmie has grown tremendously in the past fifteen years, primarily due to the Snoqualmie Ridge developments. Between 1960 and 1995, the City grew an average of 11 persons a year, but the 1996 population of 1,550 when Snoqualmie Ridge I homes started selling has since swelled to a 2010 census population of 10,670. The latest Office of Financial Management (OFM) April 1, 2013 City population estimate is 11,700 persons.

Population Counts

Snoqualmie challenged the 2000 Census when population reports did not align with recent building trends. The City contracted with Calm River Demographics for a special census that showed 2,345 persons in the City, which the Office of Financial Management (OFM) certified as the City population in 2001.

Housing & Jobs Targets

The 2006-2031 GMPC targets for Snoqualmie are 1,615 new housing units, and 1,050 new jobs. Assuming 2.5-3.0 persons per household, this implies a population gain of between 4,037 to 4,845 persons to the 2006 City population.

Cities must demonstrate capacity to meet GMPC targets though a target does not represent a ceiling. This was noted in the July 15, 2009 presentation, "King County Housing and Employment Growth Targets, 2006 – 2031 Planning Period," to the King County Growth Management Planning Council.

C.2 2032 GROWTH TARGETS AND CAPACITY

As the City population has not grown at a steady rate over the last 20 years, and because the up to 2,150 homes to be built in Snoqualmie Ridge II via development agreements will – by itself – outstrip city GMPC growth targets, it would not make sense to estimate the 2032 city population based on growth rates or assigned housing targets. Planning that ignores the growth implied by Snoqualmie Ridge II, along with Snoqualmie's Urban Growth Area development capacity, would be irresponsible to the development realities of the City – especially given its existing, executed, in-progress development agreements.

To plan reasonably and responsibly, and consistent with its development agreements, the city has determined Snoqualmie's expected 20-year population based on household capacity as shown in Table 7.3.[1] **The middle population estimate is used throughout this document.**

Table 7.3

2022 & 2032 PROJECTED POPULATION

	Interim Year 2022			Total Year 2032		
	Low	**Middle**	High	Low	**Middle**	High
2010-2032 Est. Population Gain	3,256	**3,554**	3,554	4,012	**4,882**	5,171
2010 Census Base Population	*10,670*					
Total Population	13,926	**14,224**	14,224	14,682	**15,552**	15,841

See Table 7.6 for all population projection assumptions.

Like the Population Growth Target, Counties planning under GMA must establish employment growth targets for each city, representing the minimum number of new jobs the city must accommodate with land designations in the 20-year planning period. The GMPC set a 2006-2031 target of 1,050 new jobs for the Snoqualmie; Table 7.4 indicates the total employment capacity for the existing city and urban growth area and demonstrates that sufficient land is available to accommodate the 2031 minimum job target. According to local and Puget Sound Regional

New Jobs Since 2006

New Businesses in Snoqualmie since the issuance of the GMPC 2006-2031 jobs target include SpaceLabs; Chase Bank; DirtFish; King County DPER; Motion Water Sports; Snoqualmie Library; Square One Distribution; Technical Glass; and Zetec.

[1] See Section 7.I. Methodology on the Distribution & Extent of Land Uses.

Council data, Snoqualmie has already added between 650-750 jobs from new businesses since 2006, and will likely exceed the GMPC target by 2022.

Table 7.4
2022 & 2032 PROJECTED EMPLOYMENT, BY PLANNING AREA

	2012 Existing Jobs	2012-2021 Est. Additional Jobs	2022-2032 Est. Additional Jobs	2032 Est. Total Jobs
Historic, Meadowbrook PA & Other	859	157	0	1,016
Snoqualmie Ridge I & II PA	1,830	445	0	2,275
Snoqualmie Hills West PA	15	0	1,000	1,015
Snoqualmie Falls PA	257	300	0	557
Mill PA	45	84	743	872
Total	**3,006**	**986**	**1,743**	**5,735**

See Table 7.7 for all employment projection assumptions.

The full methodology for city job and population projections is detailed in Section 7.I. Methodology on the Distribution & Extent of Land Uses, including 75 assumptions to logically shape projections throughout the City and by sub-section. This methodology provides details on sensitive area buffers, market assumptions, dwelling units assumed per acre and acreage subtractions from known development barriers and commitments.

Among these assumptions are some main themes that help in understanding City housing growth assumptions.

- First and foremost is the Snoqualmie Ridge II development agreement which, while approved in 2004, did not begin selling homes until 2006; its trajectory of 1,850 to 2,150 homes by itself exceeds the GMPC 2006 housing target of 1,615 new housing units. At the time of the inventory from 2011-2012, approximately 1,000 units remained to be occupied in the development. These unit commitments, infrastructure and financing to support this development, were established via developer agreement.
- Similarly, the housing capacity, infrastructure and financing to support 239 housing units attributed to the Snoqualmie Falls Planning Area is established via the Salish Development Agreement (175 units; see Methodology Assumption #43) and the Kimball Creek development agreement (64 remaining from 125 units; see Methodology Assumption #44). Additional units come from the planning area north of the City boundary, in the UGA; financing would be established with the developer upon an annexation proposal to the City.
- The largest remaining housing contributors are the Snoqualmie Hills East & West Planning areas in the UGA. Combined, these areas represent lower projected growth of 738 units. The Snoqualmie Tribe has purchased several parcels in Snoqualmie Hills East, with a probable intent to add them to tribal reservation lands. In contrast, Snoqualmie Hills West is predominantly larger lots with low-density improvements and a high probability for re/development; one exception are the parcels in this area with expensive homes, where private, high-income landowners may be uninterested in selling to potential developers. As this area is not yet developed, financing would be established with the developer upon a proposal for annexation to the City.

Removing the effect of Snoqualmie Ridge, whose planned numbers have naturally reduced due to development, this plan's housing forecast is 488 housing units lower than in the 2009 Land Use element in the Comprehensive Plan.

There are three main drivers that help in understanding City employment growth assumptions.

- Based on the uses and lower employment density of development in Snoqualmie Ridge I & II to date, the total projected employment capacity of these areas was reduced by 1,357 positions compared to previous years.
- A portion of Snoqualmie Hills West was designated for an expansion of the business park, helping to recapture some of the reduced job projections in other areas. This helps maintain an in-city jobs/housing balance (see Economic Development Table 3.1), which reduces regional commuting and regional infrastructure pressures. As stated above, financing would be established with the developer upon a proposal for annexation to the City.
- Snoqualmie Falls employment projections were reduced by 156 positions due to developer predictions for remaining capacity, and hospitality industry estimates for the proposed hotel in Salish Development Agreement.

Including the effect of Snoqualmie Ridge, whose planned capacity has not provided as many jobs as predicted, this plan's employment forecast is 1,547 employment units lower than in the 2009 Comprehensive Plan Land Use element.

The capacity that Snoqualmie has evidenced for housing and employment growth is noted in the surplus projections of the City of the 2014 King County Buildable Lands Report, approved by King County GMPC, on July 23, 2014.

D. BALANCED, HEALTHY DEVELOPMENT PATTERN

For many years Snoqualmie existed as a compact small town, located in a rural landscape of farms and forests, separated from other nearby communities by open space. Older Snoqualmie neighborhoods were built when people had fewer cars, so its compact development pattern enabled residents to walk from their homes to their daily needs. Homes were located close to jobs, stores and services, and the traditional grid street pattern allowed pedestrians and motorists easy access most city areas. Today, in response to greater mobility and demands for affordable housing, many small towns have been filled with placeless housing, or 'sprawl' that increasingly chokes roads with more cars. Auto-oriented development has posed myriad issues: air pollution, long commutes that separate parents and children, towns that lack character, while consuming farmland, wildlife habitat and open space. This pattern of growth has upset the social and physical structure of our communities.

In 2005, ESSB 5186 modified the GMA to require that, "Wherever possible, the Land Use Element should consider utilizing urban planning approaches that promote physical activity." While the City has long supported pedestrian orientation, the below techniques are examples of development that encourages physical activity:

Mixing Residences and Work Sites
A mix of residences and work sites provides people the option to live closer to work, making walking, biking and transit easier to use.

Shops and Services within Walking Distance
In the past, shopping and commercial spaces were concentrated in large centers oriented to a freeway or major arterial, designed for cars rather than pedestrians. Locating shopping and services within walking distance (up to ½ a mile away) of homes makes walking and bicycling more attractive, reducing the need for automobiles.

Housing, Jobs and Transit
Many residents of the upper Snoqualmie Valley commute by car to jobs in urban, metropolitan King County. They do so because it is more convenient than using current transit service. Encouraging new housing and jobs to be developed in proximal to each-other and to transit stops, and working with METRO to improve transit service, can increase the likelihood of residents commuting via transit rather than their single-occupant vehicles.

Appropriate Land Use Designations
Focusing growth in areas that have capacity to absorb additional development, such as areas where there is unconstrained, vacant or underutilized land, and infrastructure is in place or nearby, is an efficient use of land. Encouraging sensitively designed infill in these areas can promote pedestrian circulation, protect open spaces and minimize adverse environmental impacts.

Local Centers

Regional and local growth centers are one of the key foci of the **Vision 2040** Regional Growth Strategy articulated by the Puget Sound Regional Council (PSRC). In Vision 2040 Snoqualmie is characterized as a Free-Standing Small City, serving as a hub for relatively higher density housing choices and as job service centers for surrounding rural areas. Local city centers also provide service and cultural amenities (pg 12; 22; 23).

As stated in PSRC's **Vision 2040**,

Centers are locations characterized by compact, pedestrian-oriented development, with a mix of different office, commercial, civic, entertainment, and residential uses… Concentrating growth in centers allows cities and other urban service providers to maximize the use of existing infrastructure, make more efficient and less costly investments in new infrastructure, and minimize the environmental impact of urban growth.

The Historic Downtown Snoqualmie & the Snoqualmie Ridge Neighborhood Center and Business Park are two existing City centers, with the Mill Site as a planned Local Center. Given the regional tourist attraction of Snoqualmie Falls, and the existing and future hotels proposed in the Falls Planning Area, the Falls may be considered another local center.

Recent Snoqualmie Ridge neighborhoods were planned to provide compact, pedestrian-oriented development, with high density residential located close to retail, recreation and employment in the neighborhood center. Development has generally followed a modified grid pattern of narrower streets with separated sidewalks, pedestrian linkages and smaller lots served by alleys with porches in the front. While the business park represents a large-scale commercial use not present in the historic city, it also emphasizes pedestrian circulation to provide neighborhood center access, supporting resident ability to live and work in close proximity. While Snoqualmie expects to continue growing over the next 20 years, the City will continuing pursuing neighborhoods that are compact, have mixed uses and are pedestrian-oriented. By drawing on the best features of historic Snoqualmie, and the innovations of planners, architects, developers and citizens, the City can improve its physical and social environment, encourage people to use cars less, and reduce sprawl.

E. THE UGA & PLANNING AREAS

The Growth Management Act requires the establishment of an urban growth area (UGA) around each city, from which land can be annexed and provided with urban services. The urban growth area is to include sufficient land area to meet a twenty-year projection for population and employment growth, with properties outside of the UGA to remain rural. The current City UGA is largely determined by physical features:

- **Northern Boundary**. The steep slopes of the Lake Alice Plateau form the northwest city boundary, along with the area around Snoqualmie Falls and mining operations to northeast above the Mill Planning Area.
- **Eastern Boundary**. Snoqualmie's Eastern boundary if formed by the Snoqualmie River and forest land.
- **Southern Boundary**. With the exception of the City owned property on Rattlesnake Ridge creating a municipal island, the I-90 corridor and North Bend form the city's southern boundary.
- **Western Boundary**. The steep slopes of the Lake Alice Plateau and Lake Alice form the western city edge.

The City and urban growth area is divided into seven planning areas, as depicted on Figure 7.2: *Planning Areas*, determined by parcels with similar characteristics or geographic congruity. Each planning area sub-section below describes its significant attributes and issues. For planning areas located entirely or partially outside existing city limits, consistency with the Comprehensive Plan and its policies must be addressed prior to annexation, with the preparation and adoption of an "Annexation Implementation Plan" to address site-specific policies and development requirements.

Annexation implementation plans can be initiated by the City directly or by property owners proposing annexation. These plans must be reviewed and adopted pursuant to the RCW 35A.14.330 and 340 pre-annexation planning process. Development approvals required by other city ordinances require substantial but not literal compliance with annexation implementation plan policies, allowing flexibility to respond to unanticipated circumstances.

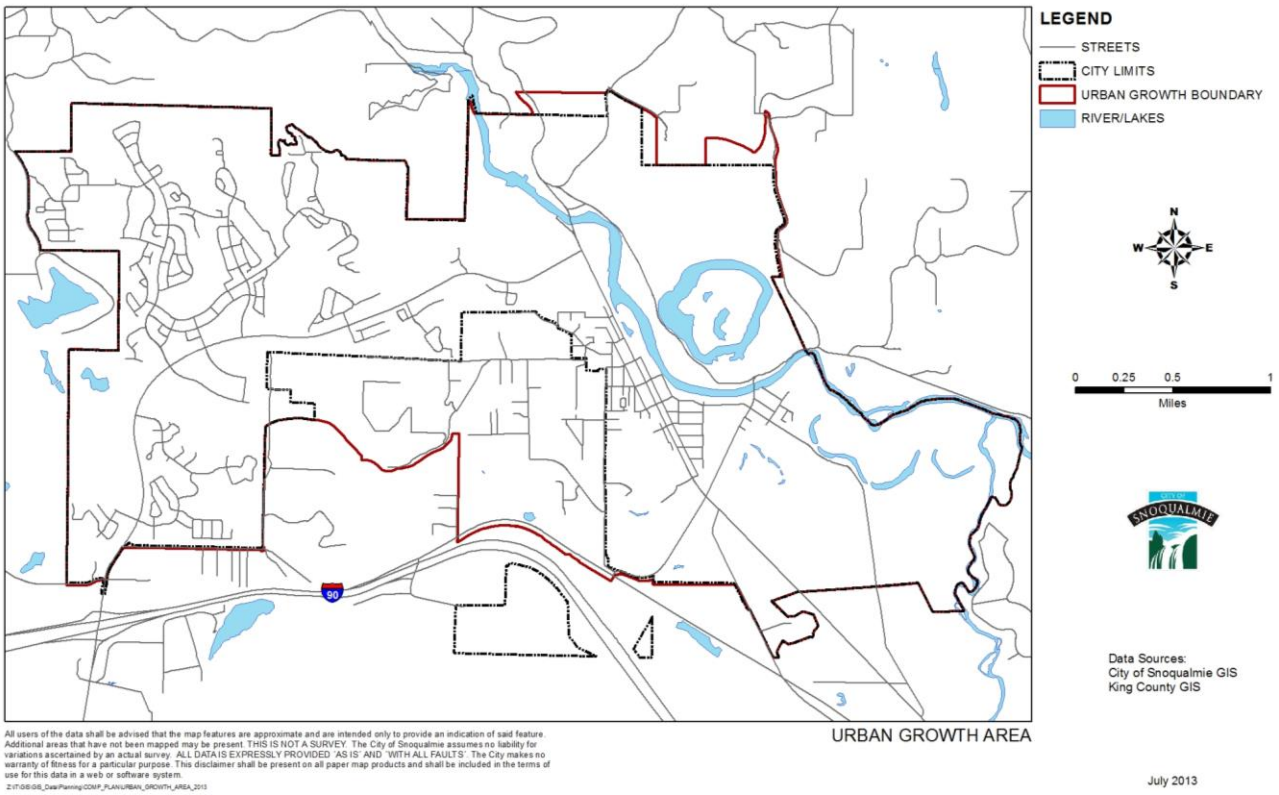


Figure 7.1 Snoqualmie City Boundary & Urban Growth Area

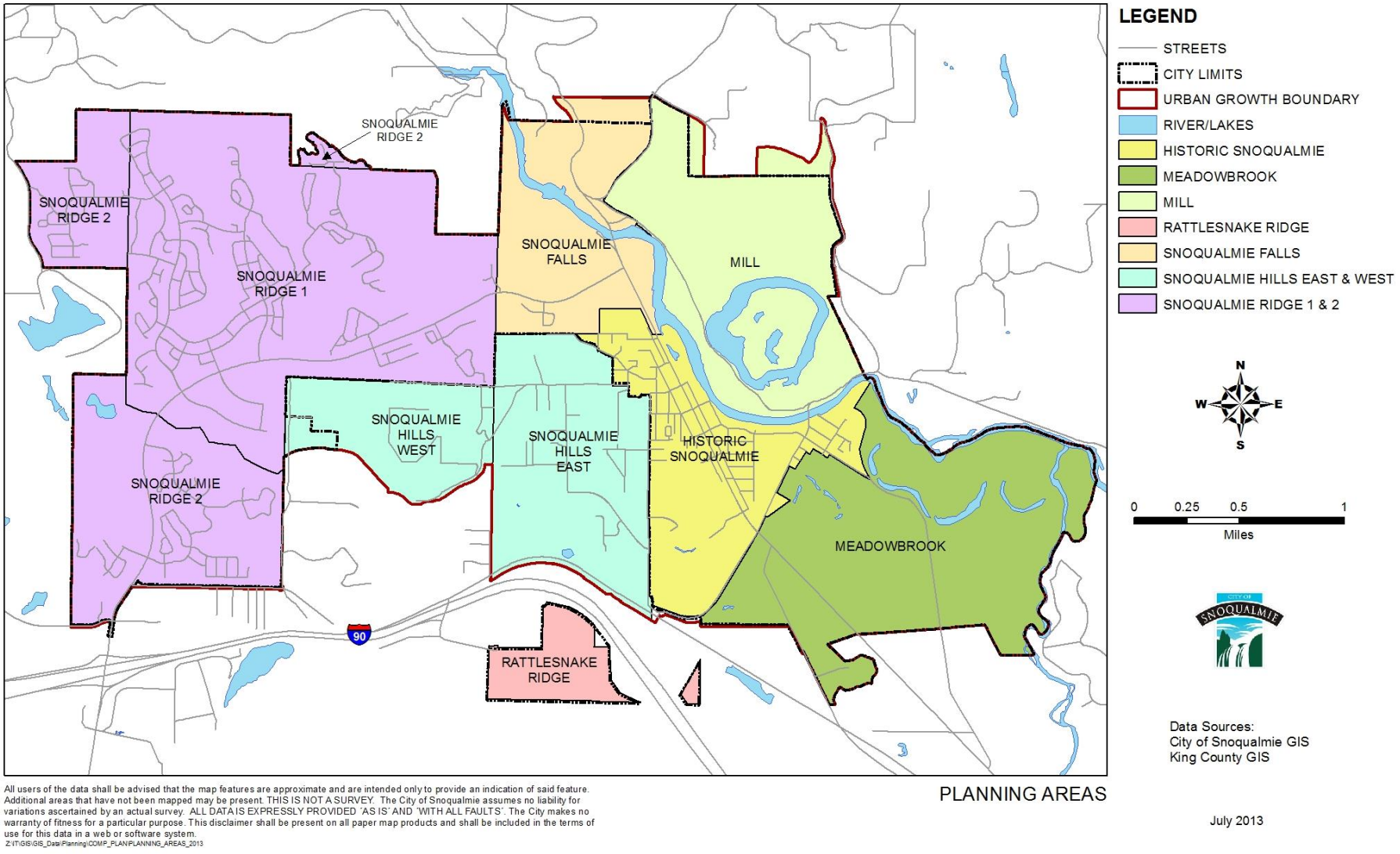


Figure 7.2 Planning Areas

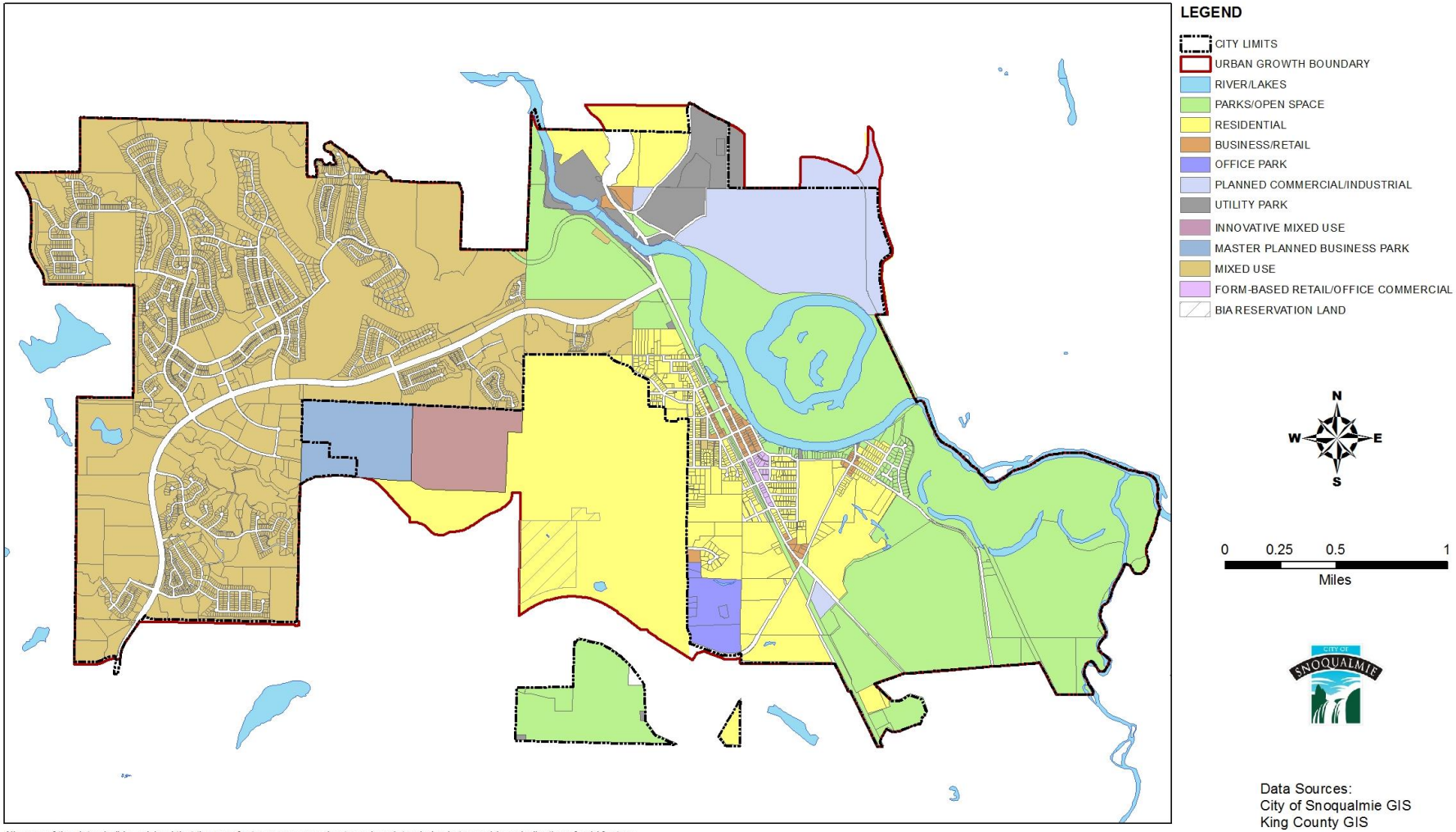


Figure 7.3 Land Use Designations

E.1 SNOQUALMIE HILLS EAST & WEST PLANNING AREA

Significant Features:

1. Moderate-density residential development, especially in the northeast.
2. Area serves as Coal Creek drainage basin.
3. Moderate to steep slopes.
4. Existing city services, primarily water supply, extended to large sections of the area.
4. Transportation links largely toward existing city.
5. Historic resistance to annexation expressed by residents.
7. Areas of poor soils, limiting the capacity to sustain numerous septic systems.
8. Old I-90 scenic corridor in context with the Mountains to Sound Greenway.

The William's Addition neighborhood in Snoqualmie Hills East contains many of the homes moved from the old Snoqualmie Falls Town site near the old Weyerhaeuser Mill. For information on this neighborhood, see Community Character Element Section E.11.

Snoqualmie Hills East and West are located outside of the current city limits, within the City's urban growth area. While currently unincorporated, these areas have always identified with the City – most households have a Snoqualmie address and are served by City water. Developed portions of this planning area include the William's Addition, Johnson Heights, Weathervane Heights, and Coal Creek neighborhoods, all characterized by a mixture of older and newer homes; some small agricultural uses still exist in the Coal Creek area. This planning area is currently un-sewered, with septic system drainage that may have contributed pollutants to Kimball Creek, which drains most of the area. To the east, the Snoqualmie Hills Planning Area is predominantly divided into single family residential lots, and is best suited to largely remain as this type of use in the future. However, Snoqualmie Hills West is characterized by larger parcels held by fewer owners and with fewer physical constraints; designated land uses to the west are for an extension of the business park, and for innovative mixed-use development, as further described in Section H. Glossary of Proposed Land Uses. Future development throughout Snoqualmie Hills will need to incorporate transportation corridors through Snoqualmie Hills between eastern and western portions of the City, to support both emergency preparedness and general residential needs; for more information on this topic, please see Element 8 Transportation, Section E. It should also be noted that approximately 19 acres in Snoqualmie Hills East and 22 acres in Snoqualmie Hills West have been purchased by Tribal entities in addition to the existing 56 acres of reservation land mostly occupied by the Snoqualmie Casino; future land uses in these areas may be impacted by the development plans of these parcels.

E.2 SNOQUALMIE FALLS PLANNING AREA

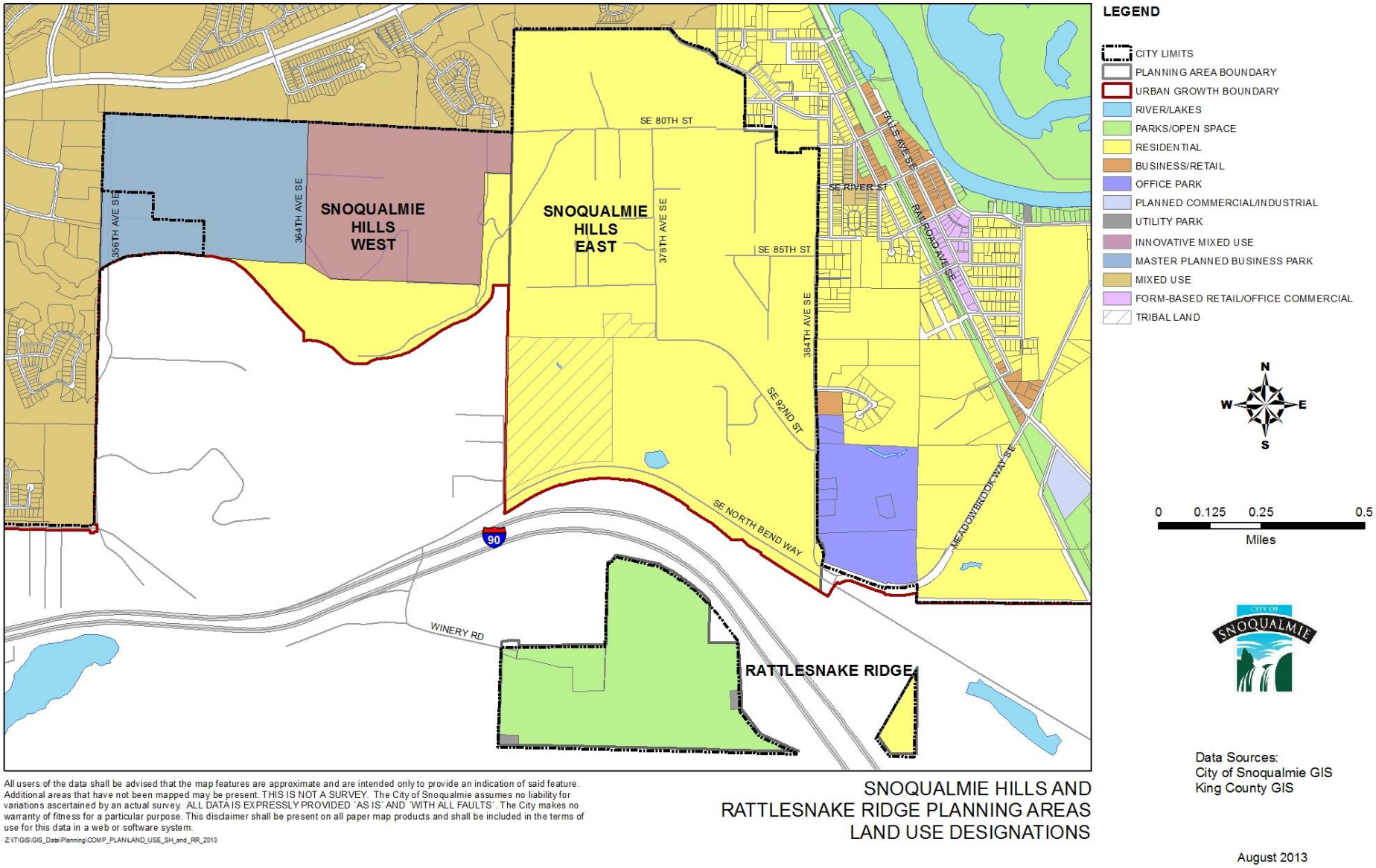
Significant Features:

1. Snoqualmie Falls is a major scenic tourist attraction.
2. Majority of the planning area is within city limits.
3. Viewshed considerations from Snoqualmie Falls.
4. Aesthetic designs of SR 202 as a gateway to historic downtown.
5. Salish Lodge, located west of SR 202 at Snoqualmie Falls.
6. Location of proposed regional trail linkages.
7. Large tracts of undeveloped land.

The predominant feature of this area is Snoqualmie Falls, along with the Salish Lodge and Puget Sound Energy's generating plant and substation. This area also includes the Kimball Creek development, which has multifamily housing, office and retail/services space. A majority of this planning area is now owned by the City of Snoqualmie due to the Snoqualmie Preservation Initiative, including land north of the Snoqualmie Parkway and land between SR-202 and the Snoqualmie River. Remaining developable portions of this planning area include the Salish Development Agreement properties northeast of SR-202. Perhaps more than any other, this area requires careful planning to protect the scenic character of Snoqualmie Falls, such that most of the property has been designated mixed use or planned residential to provide the City the greatest opportunity for discretionary review. There is additional property adjacent to the Salish development agreement area, outside City limits but within the UGA, not currently covered by a developer agreement.

E.3 MILL PLANNING AREA

The primary land use in this area from 1917 to 2003 was the Weyerhaeuser Mill, though due to the constraints of its partial floodplain location, continued heavy industry uses are not appropriate for the area. A large portion of this area was annexed in 2012, subject to a pre-annexation agreement.



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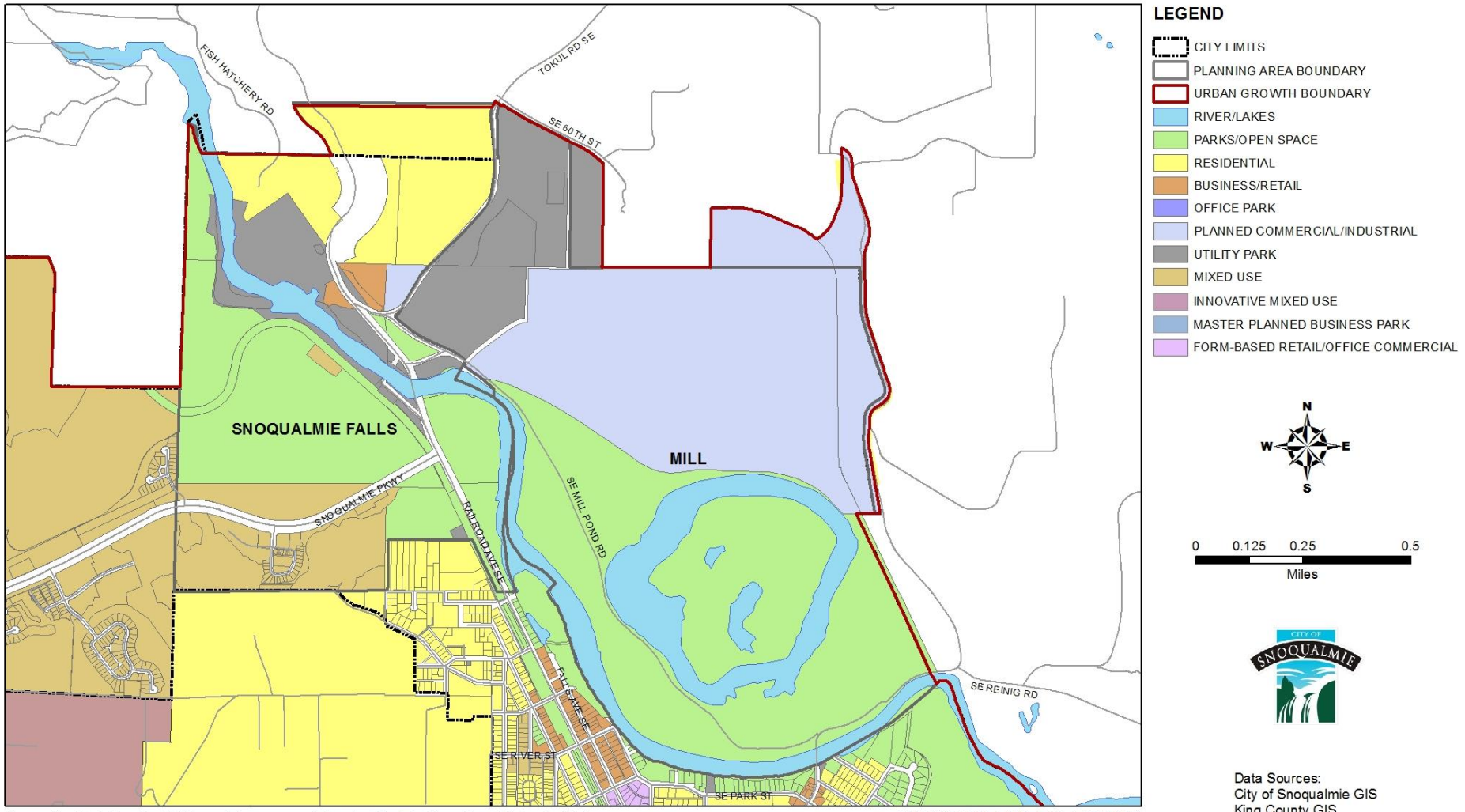
SNOQUALMIE HILLS AND
RATTLESNAKE RIDGE PLANNING AREAS
LAND USE DESIGNATIONS

Figure7.4 Rattlesnake Ridge, Snoqualmie Hills East & West, Planning Areas & Land Use Designations



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SNOQUALMIE FALLS AND MILL PLANNING AREAS LAND USE DESIGNATIONS

Figure 7.5 Snoqualmie Falls and Mill, Planning Areas & Land Use Designations

Significant Features:

1. Large redevelopable site of the former Weyerhaeuser Lumber Mill.
2. Potentially the most significant regional economic stimulant.
3. Poor road links to major highway.
4. Large portions in floodway/floodplain, with areas of prior unpermitted fill.
5. Areas of potential soil contamination due to former lumber mill activities.
6. Large segment of Snoqualmie River frontage.
7. Large Class I wetland –Borst Lake, or the former mill pond.
8. Location of the City's wastewater treatment, water treatment, & Public Works Dept. facilities.
9. Location of City's north well field.
10. Location of proposed regional and local trail linkages.

Aside from Mill site flood impacts, one concern that has been raised for the area is possible remaining soil contamination from previous mill operations. Weyerhaeuser conducted a number of site assessments for contaminants in 1993 and 2004, which were followed by several voluntary clean-ups, some of which were completed pursuant to a 2006 King County clearing and grading permit. Department of Ecology records show the former lumber mill site is awaiting a Site Hazard Assessment; a "no further action" letter from DOE was not obtained for the site, reportedly due to legal costs. Overall, the site is a brownfield or, "an abandoned, idle or under-used real property." Such designation means the site may qualify for various brownfield grants.

Mill Site Berm & Fill

To protect the former mill site, Weyerhaeuser constructed a berm along Mill Pond Road with fill later added behind the berm, some without the proper permits; about 93,900 cubic yards of fill were added to the floodplain. The King County Flood Hazard Reduction Plan identified the berm as a hazard that displaced floodwater,potentially impacting conveyance & storage capacity. Weyerhaeuser was issued a permit in 2006 by King County to remove about 49,000 cubic yards of the fill; the berm was breached and most of it removed. The City pursued an action against the County to compel removal of remaining fill. The County prevailed. The Mill property pre-annexation agreement requires removal of floodplain fill as part of future development.

E.4 OTHER PLANNING AREAS

Other planning sub-areas are as follows:

Historic Snoqualmie Planning Area. The Historic Snoqualmie Planning Area essentially includes areas residential and commercial areas developed in the city from the 1900's to the 1980's, including the original Snoqualmie Falls plat. It is bounded to the north by the Snoqualmie River and Snoqualmie Falls; to the west by 384th Ave; to the east by Meadowbrook Way and the Mount Si Golf Course; and to the south by I-90. Modest changes are anticipated for this planning area; it is characterized by older homes on a pedestrian-friendly grid pattern located in the Downtown, Railroad West, Greek and Northern-Cedar neighborhoods. Due to prevalent floodplain constraints and few remaining property options, there is little opportunity for intensive future development in this planning area. Some increase in residential density is envisioned to allow for additional choice in residential type, density and location, including zoning changes to allow for lower density subdivisions where appropriate, and additional medium density attached housing near the downtown.

Meadowbrook Planning Area. The majority of this planning area is characterized by institutional and open space uses in public ownership including the Snoqualmie Middle School, Snoqualmie Elementary School, Centennial Park, a large portion of the historic Meadowbrook Farm property, and the privately-owned recreation area of Mount Si Golf Course. Most of the area lies within the floodway portion of the Snoqualmie River floodplain, where new residential development is prohibited by State law. The residential designation within this subarea reflects the desire to maintain the existing residential neighborhoods, while acknowledging the floodway constraints. The Meadowbrook Farm property, acquired as public open space, provides a scenic foreground to views of Mt. Si and Rattlesnake Ridge, and provides an urban separation between Snoqualmie and North Bend. Some smaller properties located at the edge of this area are designated for light industrial uses.

Rattlesnake Ridge Planning Area. This planning area contains the City-owned property Snoqualmie Point Park, formerly used as a city water source, and subleased to a winery that burned down in 1998. Due to the need to balance the amount of land in the City UGA resulting from the addition of lands for Snoqualmie Ridge Phase II, (called for in the UGA Sub-Area Plan for the Snoqualmie Preservation Initiative), unincorporated portions of the Rattlesnake Ridge Planning Area were removed from the UGA. The remaining planning area consists of Snoqualmie Point Park, the Department of Natural Resources Rattlesnake Ridge trailhead and parking area, adjacent U.S. Forest Service lands to be managed for viewshed protection, and an isolated Department of Transportation property.

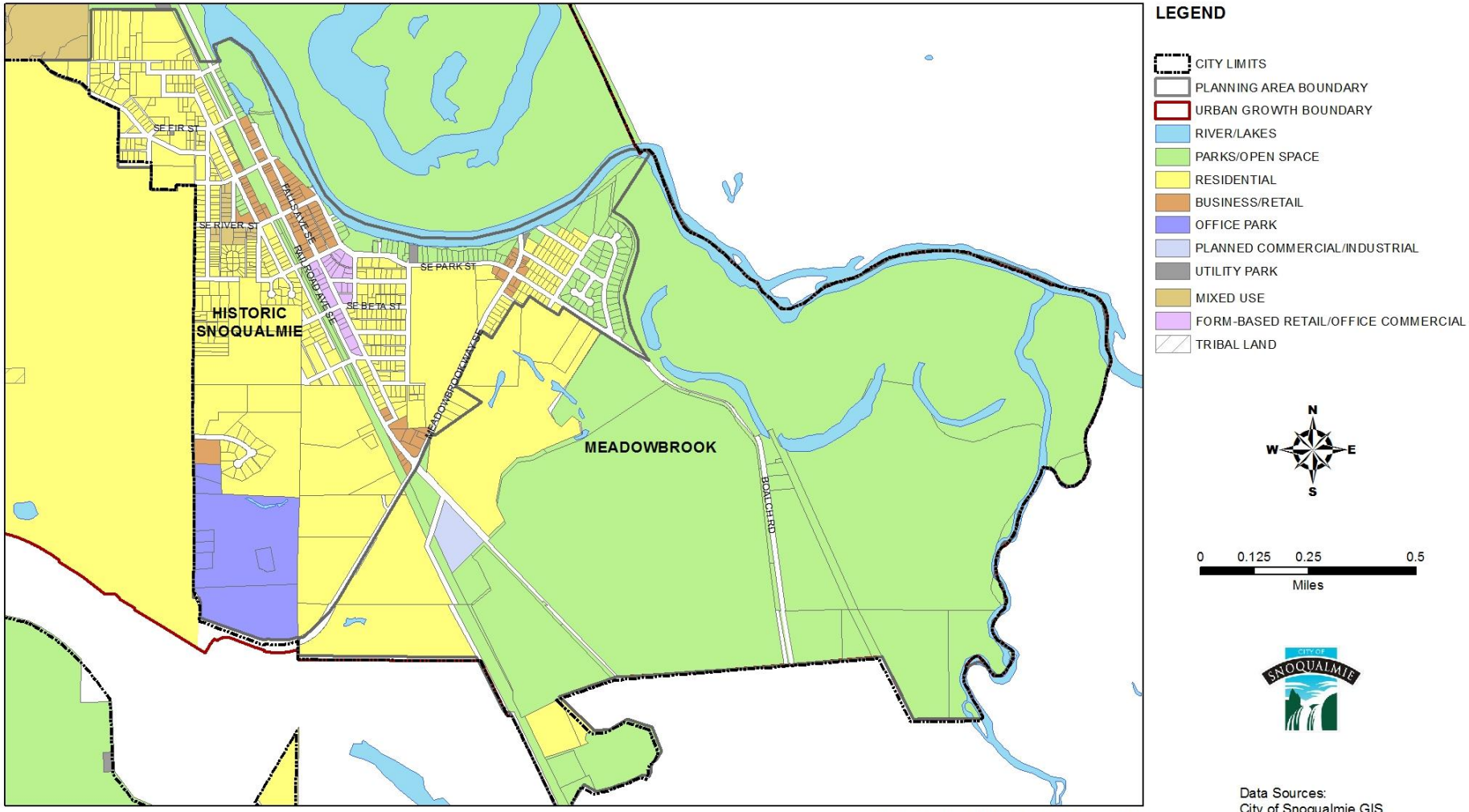


Figure 7.6 Historic Snoqualmie and Meadowbrook, Planning Areas & Land Use Designations

Snoqualmie Ridge I & II Planning Area. Snoqualmie Ridge was a 1,300-acre development annexed to the City in 1990, with a Mixed Use Final Plan approved in 1995 that brought 2,300 homes to the city as well as a 130-acre business park, neighborhood retail area, a tournament players' golf course, elementary school and numerous parks and trails. The 736-acre Snoqualmie Ridge II project was added to the City's Urban Growth Area as one of the Snoqualmie Preservation Initiative components, with plans for another 1,850 – 2,000 homes. The SRII Mixed Use Final Plan provided for primarily single and multi-family residential, with some commercial office, retail, parks and open space, and new schools. Snoqualmie Ridge I is built out and the initial build out of Snoqualmie Ridge II is projected to occur by 2018.

E.5 HISTORY OF THE URBAN GROWTH AREA

Although designation of the City UGA was a requirement of the 1990 Growth Management Act, the City has considered the shape and extent of its eventual boundaries before GMA, since the mid 1980's. In 1986 the City prepared a Potential Annexation Area Study and Environmental Impact Statement, used to develop annexation policies and a Snoqualmie Annexation Plan Map adopted by Council Resolution No. 267 in March, 1987 and added to the Comprehensive Plan. The Annexation Policies anticipated many GMA provisions, including requirements to assess and mitigate for infrastructure, and consideration of the city's long-term expansion needs. Two principal actions have shaped the UGA since, the Snoqualmie Point Land Transfer and the Snoqualmie Preservation Initiative.

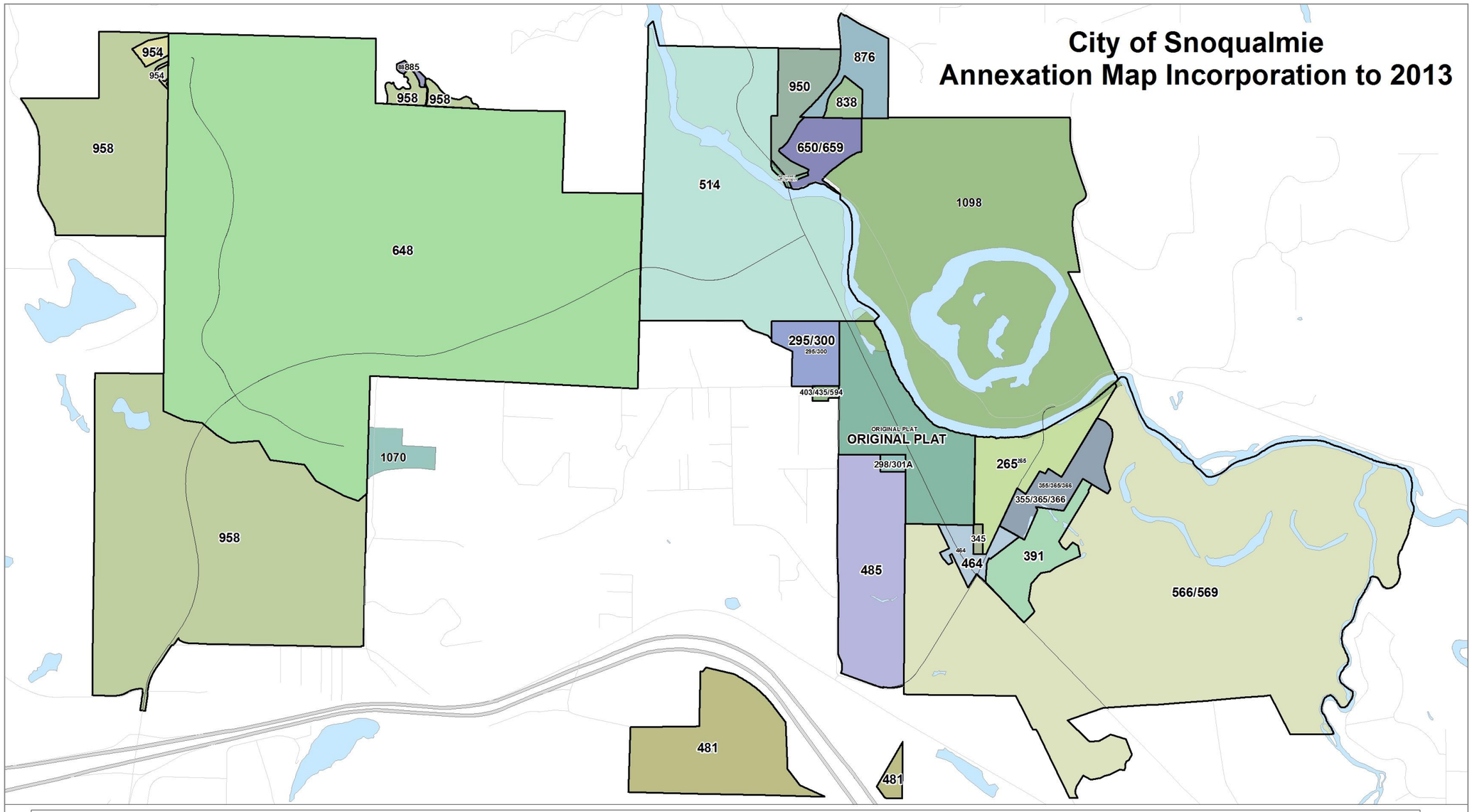
Snoqualmie Point Land Transfer: To promote economic development in the early 1980's, the City entered into a long-term lease agreement with a commercial developer for incorporated land in the Rattlesnake Ridge Planning Area, and a winery was subsequently built on the site. Through participation with the Mountains to Sound Greenway, it became apparent that continued commercial use of the site could impact a significant viewpoint and forested promontory of the Greenway corridor. When the winery burned down in 1998, the future of the site came into question. The City teamed up with the Greenway and Trust for Public Land (TPL) in 1999 to secure funding to protect the land and, through generous Federal Forest Legacy funding, the TPL purchased the 60-acre commercial property leasehold interest. The City retained approximately 9 acres for development of Snoqualmie Point Park and a water reservoir, selling its fee interest in the remainder of the 70 city-owned acres to TPL for conveyance to the National Forest Service. This land transfer protected a key site within the Greenway corridor as a spectacular open space resource for Snoqualmie and the region.

Snoqualmie Preservation Initiative: In March 2001 the City of Snoqualmie, King County, the Weyerhaeuser Real Estate Company, and Cascade Land Conservancy (now Forterra) entered into the Snoqualmie Preservation Initiative (SPI) agreement, to preserve undeveloped land north of Snoqualmie Falls. In the SPI agreement, approximately 150 acres of the former Falls Crossing site west of Snoqualmie Falls was purchased from the developer by the City, to be set aside as preserved forested open space with the exception of a municipal campus reserve that now hosts the City Fire Department. In exchange for the Falls Crossing purchase and for conservation easements permanently protecting up to 2,800 acres of Raging River watershed land (outside the City UGA) from development, 736 acres to the west and south of Snoqualmie Ridge I development were brought into the City UGA for future annexation. To balance the total amount of land within Snoqualmie's UGA, unincorporated land in the Rattlesnake Ridge Planning Area was removed from the UGA. This action was consistent with the intent of the Snoqualmie Point Land Transfer described above, eliminating the site's commercial potential and making its inclusion in the City UGA unnecessary.

F. FLOODPLAIN LAND USE

Flood impacts are also discussed in Element 4 Housing *Section F, Floodway and Floodplain Housing*, and Environment Element 6, *Section G.3 Frequently Flooded Areas*.

GMA directs cities to reduce low-density development and its consequent consumption of land, though it also directs cities to limit development in environmentally sensitive or constrained areas, including flood hazard areas. The Historic Snoqualmie planning area, along with certain portions of the Snoqualmie Hills East, Meadowbrook, and Mill Planning Areas, lie substantially within the 100-year Snoqualmie River flood*plain*, and are subject to frequent inundation. In addition, much of the vacant land within the Historic Snoqualmie and Meadowbrook Planning Areas is located within the FEMA 100-year flood***way***, wherein new residential construction is prohibited by state law. Current FEMA Flood Insurance Rate maps show floodplain areas having 100-year flood depths ranging from 2 to 15 feet; wetlands from tributary streams and topographic depressions are also common.



ORD NO.		PROPERTY ANNEXED	YEAR
		SNOQUALMIE FALLS ORIGINAL PLAT	1903
265		MEADOWBROOK/MT. SI HIGH SCHOOL	1952
295/300		SCHOOL PARK TRACTS	1957
298/301A		SI VIEW TRACTS	1958
345/457A		AREA SOUTH OF BLOCK 18	1965
355/365/366		MEADOW PARK & SNOQUALMIE ELEMENTARY	1966
391		SNOQUALMIE MIDDLE SCHOOL	1972
403/435		"OLD MIDDLE SCHOOL" (DISTRICT 410 ADMIN BLDG)	1975
464		MASKROD'S CORNER	1978
481		WINERY SITE/SNOQUALMIE POINT	1980
485		SNOQUALMIE VALLEY HOSPITAL	1980
514		SNOQUALMIE FALLS (PWI)	1982

ORD NO.		PROPERTY ANNEXED	YEAR
566/569		MEADOWBROOK FARM	1986
594		DISTRICT 410 ADMIN BLDG/BUS BARN(Portion omitted from	1987
648		SNOQUALMIE RIDGE 1	1990
650/659		WASTE WATER TREATMENT PLANT SITE & OUTFALL	1990
838		PUBLIC WORKS SITE	1999
876		NORTH WELL FIELD	2001
885		VIEW PARK (WHITAKER PARK)	2001
950		SALISH EXPANSION (GATEWAY CASCADES)	2004
954		K-NORTH POND	2004
958		SNOQUALMIE RIDGE II	2004
1070		PSE SITE	2010
1098		MILL SITE	2012

Figure 7.7 Annexation History

To address the potential for flood damages, the National Flood Insurance Program (NFIP) provides disaster assistance to public agencies and makes flood insurance available to private landowners; participating communities must adopt regulations intended to reduce flood hazards to qualify residents for flood insurance. Under the NFIP, the City participates in the FEMA Community Rating System (CRS) program, by adopting regulations that meet or exceed federal minimum standards and implementing other measures to reduce or minimize flood hazards, including requirements for home elevations. Participation in the CRS Program also qualifies City residents for flood insurance premium discounts. Current studies show that potential projects to reduce flood hazards could alter the floodway, floodplain and high-risk areas. Given the complexity of these issues, the City has determined that floodplain land use policies should be reevaluated every three years as new information becomes available or actual flooding conditions change due to flood control projects.

Residential Uses

Within the floodway portion of the 100-year floodplain, state law prohibits new residential construction or expansion, which conflicts with the predominant existing use and current zoning. For this reason, a Floodway Overlay District (SMC 17.40) was created in 1995 to allow for certain commercial uses that are compatible in scale, character and impacts with single-family residences to be developed on residentially zoned floodway lots. The City has also zoned the more hazardous area along the Snoqualmie River as Open Space, and has been acquiring riverfront residential properties with FEMA and other grant funds when properties come on the market.

Losing housing in the floodway may impact downtown retail. The city may offset these impacts through limited density increases in the floodplain, though research is needed to determine how such density would impact the City's Community Rating System (CRS) score with FEMA.

As floodplain properties are less suitable for intense development, it is more appropriate to direct most new higher density and higher intensity uses to higher ground in the city and UGA. Most of the platted lots within the Historic Snoqualmie Planning Area are small (3600 sq. ft.), created before 1937 subdivision laws. These are existing legal lots, which can accommodate new homes if vacant or redeveloped. With current flood hazard regulations in place, all new construction and substantial improvements must have the first floor elevated a minimum of one foot above the base (100 year) flood elevation. As new homes must be elevated to mitigate against potential flood hazard, it would be reasonable to allow for limited areas of higher density townhomes or apartments in close proximity to the historic downtown commercial area, to support both housing diversity and economic development. Other floodplain areas in the city and UGA contain lots ranging from 4,000 square feet to over 5 acres that are currently undeveloped or contain only one residence. Maintaining lower-density zoning in these areas is appropriate to allow for some new residential development but prevent extensive subdivision.

Commercial Uses

The historic development of the City began along the Snoqualmie River. The first underground hydroelectric power plant was built at Snoqualmie Falls, and a new railway led to development of a railway depot and commercial center along what is now State Route 202. The city grew up around the downtown and Meadowbrook commercial areas. In 2010, FEMA approved a revision to the Flood Insurance Rate Map for the downtown area, which moved the historic commercial area from floodway to floodplain designation. In 2010, the city constructed a new City Hall just one block from the commercial district. Commercial uses are allowed within the floodplain and floodway under state and federal laws, but must also comply with regulations to reduce flood hazards. The comprehensive plan designations and current zoning provide for expansion of the downtown commercial area through infill and redevelopment to support economic development and retain the character and vitality of the historic downtown commercial area. They also provide for small nodes of commercial uses along SR202 within the floodplain.

G. WATER RIGHTS

The waters of Washington State collectively belong to the public and cannot be owned by any one individual or group. Instead, individuals or groups may be granted rights to use them. A water right is a legal authorization to use a predefined quantity of public water for a

"Water, water, every where
Nor any drop to drink."

— Samuel Taylor Coleridge

designated purpose… State law requires certain users of public waters to receive approval from the state prior to using water - in the form of a water right permit or certificate. – Washington Department of Ecology[2]

Instantaneous right is the maximum pumping capacity or diversion rate of a well, spring, or water source, whereas annual right is the total quantity that may be withdrawn over an entire year.

According to the 2013 City of Snoqualmie Water System Plan, the City of Snoqualmie has water rights from multiple sources to support its current potable water needs, including the sources of Canyon Springs, South and North Wellfields, and groundwater well claims, some of which may be further developed for an additional small gain. Current water rights allow the city a total Instantaneous Withdrawal of 3,328 gallons per minute (gpm), and an Annual Withdrawal of 2,372 acre-feet per year (ac-ft/yr);[3] water system planning must meet instant, daily and annual water needs. The city currently has adequate Annual Withdrawal water rights through the 20-year planning period, and to serve Lake Alice if necessary;[4] however, when accounting for full build-out beyond 2032, there is a deficit or need for 461 ac-ft/yr in Annual Withdrawal water rights. Conversely, the City does *not* have sufficient Instantaneous Withdrawal water rights through its 20-year planning period, requiring an additional right of 54 gpm by 2032; or 113 gpm if Lake Alice is added; or 868 gpm additional needed water rights if there is full city build-out.[5]

The City is in discussions with different water right holders to supplement its current Annual and Instantaneous Withdrawal rights; this will allow additional expansion of its developable area to beyond the current Retail Service Area (RSA), the area in which the City currently provides potable water service. The RSA currently includes the incorporated city limits, a section of the Snoqualmie Hills East UGA planning area, as well as some sections outside the UGA including development along Reinig Road and an easterly prong of development clusters along North Fork Road SE. Aside from the Salish Expansion Agreement that guarantees water rights upon further development in the Snoqualmie Falls Planning Area, any substantial development of the Mill Site or the Snoqualmie Hills UGA would require additional water rights to be secured by the city or private developers.

Another way to assist in the future development capacity of the City is to reduce individual residential and business water consumption; although this cannot likely make up for all water needs, the average household water use does factor into production projections. Since the Conservation Program was enacted in the 2004 Water System Plan, the average household or Equivalent Residential Unit (ERU) water consumption decreased from a 2006 peak of 227 gallons per day (gpd) to 174 gpd/ERU in 2010; this represents a 23% reduction in the average daily water use. Current planned Water Plan conservation measures include reducing distribution system leakage from its average of 13% to 6% by 2018, and to reduce summer use through refined irrigation management

H. GLOSSARY OF PROPOSED LAND USES

The following list provides general descriptions of the predominant types of uses that may occur within each land use designation. It is not an exhaustive list of uses envisioned within each designation. The development regulations adopted pursuant to this plan will identify more specific zoning districts with corresponding permitted uses, conditional uses and unclassified uses, density allowances and other requirements. Land use designations are influenced by multiple factors, including physical constraints, former planning designations, the existing land use pattern, and existing and planned infrastructure. Land Use Designation Maps (Figures 7.4 - 7.8) depict the proposed distribution, location and extent of land uses within each planning area. The general land uses to be allowed in each land use designation are as follows:

[2] Water Rights Homepage, www.ecy.wa.gov/programs/wr/rights/water-right-home.html , accessed May 10, 2013.

[3] Or 2,172 (ac-fe/yr) Annual Withdrawal &3,148 (gpm) Instantaneous Withdrawal when less the undeveloped groundwater claims, per p. 3-18.

[4] Note: Lake Alice service is not necessarily anticipated; the City provided their Community Association with a letter assuring that the City would provide them with service if the Snoqualmie Ridge development adversely affected their water supply. Monitoring has shown no impact.

[5] Pages 3-17 through 3-19.

Residential	Covers a broad range of housing sizes and types, from low to high density housing as defined in Table 1.1.
Business/Retail	A broad variety of retail and other commercial uses with pedestrian-oriented retail and service uses centered in and around the historic downtown core and other general commercial uses centered near the SR202/Meadowbrook Way and Park St./Meadowbrook Way intersections. Current zoning district classifications within this designation include Business Retail I and II and Business General
Form Based Commercial	Allowing for infill and re development with an emphasis on pedestrian-oriented form and development pattern compatible with the Downtown Historic and Landmark District. A range of retail, commercial and office uses could be allowed, but development is driven by form rather than use.
Office Park	Predominantly office uses in a campus setting.
Planned Commercial/Industrial	Requires a master-planned development plan for a potential mix of commercial, office and light industrial and manufacturing uses.
Mixed Use	A master-planned mix of residential, commercial, employment, institutional, utility and recreation uses**,** excepting heavy industrial.
Innovative Mixed Use	Requires a master planned development plan to include a mix of residential types, sizes, costs, and living arrangements to expand the range of housing choices within the City, and may include small-scale or compatible retail and service uses. Could include age restricted, independent or assisted-living housing for seniors; forms of cooperative housing; or plan for exceptional environmental outcomes.
Master Planned Business Park	Envisioned as an extension of the Snoqualmie Ridge Business Park, allowing office, research and development, and light manufacturing/industrial uses, but limiting warehouse and distribution uses.
Parks/Open Space	Active and passive recreation areas, allowing for museums, natural/cultural interpretive centers, community centers, golf courses and other commercial recreation uses in some areas, agriculture, along with natural open space and wildlife corridors.
Utility Park	Power generation and accessory uses, sewage and water treatment plants, other utilities and accessory parks, and open space uses.

Various plans affect land use designations, such as the *2013 Meadowbrook Farm Master Plan Update*, and the City Shoreline Master Program, adopted by reference into this Comprehensive Plan as stated in Policy section 6.3.

H.1 RESIDENTIAL LAND USE

Residential land use consists of single-family and multifamily dwellings, including manufactured housing, foster care facilities, group quarters, senior housing, assisted housing and cooperative housing. Other land uses found in residentially-designated areas include schools, churches, parks and open space, and undeveloped platted lands. To allow for zoning flexibility, the comprehensive plan applies the "Residential" land use designation to identify existing and future residential areas within the City. Residential uses are also allowed within Mixed Use designated areas. Second story residential uses may also be appropriate in some commercial areas. Lower density residential zoning districts will generally be applied to areas constrained by sensitive areas. Larger, large-lot undeveloped residential areas lend themselves to zoning that requires master-planned residential development to encourage an appropriate mix of housing types and densities. The residential designation is not intended to include transient housing such as campgrounds, hotels, shelters, or time-shares.

H.2 COMMERCIAL & INDUSTRIAL LAND USE

Commercial land uses support the daily retail and service needs of the community and can provide local employment. There are six designations to accommodate commercial uses, including General; Office; Retail; Office Park; Planned Commercial/ Industrial and Mixed Use. The General designation may accommodate a broad range of retail and commercial uses, including those that are larger-scale or that are inappropriate for the core downtown. Such uses include automotive repair, warehouses, limited light-industry or commercial storage. The Office district is intended principally for offices, but also includes retail and services. The Retail designation is intended for core shopping needs in Snoqualmie, with uses serving as shopping catalysts to other businesses in the district; ground floor retail and services are encouraged for this area with offices and professional services on upper floors. The Planned Commercial/Industrial designation may accommodate manufacturing, office and light industrial development planned in a comprehensive manner. The Office Park designation is intended to accommodate coordinated medical, dental and professional services development in a planned campus setting. Second story residences may be appropriate in some commercial areas.

Property Rights

Protection of private property rights is one of the 13 Growth Management Act goals. Two critiques of land use regulations are that they deprive land owners of property rights, and that processing development permits takes too long.

The city continuously seeks ways to speed the land use and permit approval process. In addition, the City allows reasonable use exceptions for some land use regulations to assure that regulations do not deprive owners of all viable economic use of their property, severely impact a landowner's economic interest, or deny a fundamental attribute of ownership. For additional information, see the 2006 State Attorney General Advisory Memorandum: *Avoiding Unconstitutional Takings of Private Property*.

The City's proximity to the major transportation routes of Interstate 90 and State Route 18 make Snoqualmie a convenient location for industrial uses, which provide jobs and contribute to the local tax base. Two designations accommodate industrial land uses, including Industrial and Planned Commercial/Industrial, including land used for manufacturing, processing, warehousing, storage and related uses. Heavy industrial uses should be limited in the floodplain to prevent additional flood hazards associated with such uses.

H.3 MIXED USE

Mixed use development is intended for comprehensively planning large properties with a mix of residential, retail, commercial, public and open space uses. Mixed use projects should be developed to accomplish the following:

* Enable imaginative site and building design with a compatible mix of uses that will encourage pedestrian and non-motorized access to employment, retail goods, services and public facilities.
* Ensure land use and design is sensitive to adjacent land uses, and avoid the creation of incompatible uses.
* Ensure that all development adequately considers and mitigates its impacts to transportation, public utilities, open space, recreation, public facilities & services, and that circulation, solid waste disposal and recycling, water, sewer, and storm water systems are designed to adequately to serve future adjacent development.
* Ensure that development protects and preserves the natural environment to the maximum extent possible, including but not limited to protecting Snoqualmie River water quality and its tributaries, contributing to long-term flooding solutions, protecting of wetlands and sensitive areas, and protecting view-sheds.
* Ensure that development considers and promotes access to existing or comprehensively planned local and regional trail systems in the vicinity of the development.

Innovative Mixed Use will be especially sought after in future new development proposals in the City and its UGA. These are developments that intend to holistically meet comprehensive plan goals such as developments that propose high-level green-building certification; show exceptional planned environmental outcomes; that provide much-needed park facilities beyond development requirements; that propose expanded educational opportunities for residents; or that propose senior, assisted living or planned retirement communities.

H.4 INSTITUTIONAL & UTILITIES LAND USE

Institutional land uses includes public buildings, services, transportation facilities (see the Capital Facilities element) and not-for-profit agencies such as museums, interpretive centers, churches and schools which require land throughout the City. These uses typically have important environmental, health, safety, and aesthetic considerations associated with their location. While institutional land uses require City services, they do not contribute tax revenues because they are tax-exempt.

In turn, utility land uses accommodate public and private utility facilities. A Utility Park land use designation accommodates power generation and accessory uses, sewage and water treatment plants, other utilities and related parks and open spaces. The Puget Power hydropower generating plant at Snoqualmie Falls is located within a designated Utility Park area. Views of undeveloped property visible from the Snoqualmie Falls Park and views from Salish Lodge public access areas provide significant economic and environmental community resources; protection and preservation of these views remains an important consideration in Snoqualmie Falls Utility Park area development.

Essential Public Facilities

Included with institutional land uses are Essential Public Facilities. Defined by RCW 36.70A.200(2), Essential Public Facilities are those facilities that are typically difficult to site, such as airports; state or regional transportation facilities or state education facilities as defined in RCW 47.06.140; as well as state and local correctional facilities, solid waste facilities, and in-patient locations such as substance abuse facilities, mental health facilities, group homes, and secure community transition facilities as defined in RCW 71.09.020. Comprehensive plans may not preclude Essential Public Facility siting, and must establish a process for identifying and siting such facilities. For more information on EPFs, please see Element 9, Capital Facilities & Utilities.

H.5 PARKING

Parking is a land use feature associated with commercial, industrial, residential, institutional and most public development. While parking is necessary to support land use activities, its supply can affect the total vehicle trips generated. The 1991 Washington State Commute Trip Reduction Law (CTR), and the subsequent CTR-efficiency Act of 2006, requires employers in state urban growth areas with the greatest levels of traffic congestion to adopt commute trip reduction ordinances for larger employers. The City adopted Ordinance 902 on June 10, 2002, implementing commute trip reduction measures mandated by RCW 70.94. The goal of the CTR law is to reduce single-occupant vehicles (SOV's) commuting through several local jurisdiction measures, ultimately helping to improve air quality, reduce traffic congestion and reduce petroleum consumption.

To reduce reliance on single-occupant vehicles, State Commute Trip Reduction Board Guidelines call for reducing commuter/employee parking supply, while the Countywide Planning Polices encourage jurisdictions to manage parking supply in urban centers,. In addition, it is also important for the City to ensure adequate secure parking is provided for those who travel by bicycle. Reducing commute trips and the associated areas required for parking can positively impact the City by reducing land consumption, creating more pedestrian and bicycle-oriented developments, reducing requirements for new roads and improving air quality.

H.6 PARKS, RECREATION & OPEN SPACE LANDS

Parks and open space areas include land and facilities used for active and passive recreation, natural areas, undeveloped critical areas, agricultural land, and corridors such as roads, trails, utility corridors, and abandoned railroad right-of-ways. Trails and open space corridors can enhance the accessibility of open space resources, connecting parks, recreation areas and open spaces into an integrated network. Parks, trails and open space areas also buffer various land uses, helping maintain a high quality of life for residents. Parks, recreation and open space lands are addressed in the City of Snoqualmie *2012 Open Space, Parks and Recreation Plan*.

I. METHODOLOGY ON THE DISTRIBUTION AND EXTENT OF LAND USES

Table 7.5
DEVELOPABLE LAND BY PLANNING AREA AND DESIGNATION

Planning Areas Land Use	Total Acres	Occupied Acres	Vacant Sensitive Undevelopable	Occupied but Re-developable	Vacant. Floodplain Developable	Vacant Unconstrained Developable	ROW/ Other
Historic Snoqualmie							*72*
Single Family Residential	3	0	0	3	0	0	
Constrained Residential	261	157	48	38	19	0	
Commercial	31	25	1	4	1	0	
Mixed Use	1	0	0	1	0	0	
Office Park	51	49	0	0	0	2	
Parks and Open Space	56	22	34	0	0	0	
Subtotal	**475**	253	82	46	20	2	72
Snoqualmie Ridge I							*154*
Mixed Use	1,189	440	721	0	0	28	
Subtotal	**1,343**	440	721	0	0	28	154
Snoqualmie Ridge II							*71*
Mixed Use	679	117	385	0	0	178	
Subtotal	**750**	117	385	0	0	178	71
Snoqualmie Hills West							*33*
Mixed Use, Innovative	107	0	6	62	0	38	
Single Family Residential	11	1	5	0	0	5	
Constrained Residential	53	8	22	0	0	23	
Office Park, Master Planned	97	20	6	19	0	52	
Subtotal	**301**	28	40	82	0	118	33
Snoqualmie Hills East:							*33*
Planned Res. Sect. 36	126	56	4	30	0	36	
Single Family Residential	162	17	20	87	0	38	
Constrained Residential	166	121	32	0	13	0	
Subtotal	**487**	194	56	117	13	74	33
Snoqualmie Falls:							*53*
Mixed Use	69	5	55	3	0	6	
Planned Residential	60	0	0	0	0	60	
Commercial	7	7	0	0	0	0	
Constrained Residential	25	0	6	0	0	19	
Planned Comm./Industrial	8	0	4	0	0	4	
Parks and Open Space	185	14	171	0	0	0	
Utility Park	64	2	62	0	0	0	
Subtotal	**469**	27	298	3	0	89	53
Meadowbrook:							*19*
Constrained Residential	125	13	106	0	6	0	
Commercial	0	0	0	0	0	0	
Planned Comm./Industrial	6	0	0	6	0	0	
Parks and Open Space	765	16	749	0	0	0	
Resource Extraction	19	15	5	0	0	0	
Subtotal	**934**	44	860	6	6	0	19
Rattlesnake Ridge:							*5*
Constrained Residential	7	0	7	0	0	0	
Parks and Open space	121	0	121	0	0	0	
Utility Park	1	1	0	0	0	0	
Subtotal	134	1	128	0	0	0	5
Mill:							*27*
Planned Comm./Indust.	262	0	79	120	34	29	
Parks and Open Space	355	0	355	0	0	0	
Utility Park	71	0	71	0	0	0	
Subtotal	**715**	0	505	120	34	29	27
Grand Total	**5,607**	**1,103**	**3,074**	**373**	**73**	**517**	**467**

Assumptions: Table 7.5

1. Numbers may not add up perfectly due to rounding. ROW was calculated separately in each planning area, and added in for individual subtotals.
2. Redevelopable Commercial parcels defined as when the appraised improvement value was worth half the land value, or less. Parcels in residential land uses/zones were considered redevelopable when their acreage was at least twice the acres of the minimum parcel acreage required in that land use area/zone. (Ex.,

'Residential Constrained' parcels with one house on 10+ acres were considered redevelopable, as the minimum unit/acreage threshold is 1 housing unit per 5 acres for the Residential Constrained Zone).

3. Vacant, Unconstrained areas are non-sensitive areas of parcels with improvement value of $5,000 or less, as these would likely be minor structures.

Historic

4. From the total Occupied Areas of Constrained Residential, 5 acres were removed for anticipated high density housing, and another 4.5 acres of current residential was removed for the form-based code area.
5. Only half of the 1.27 acres planned for Mixed Use land use is expected to develop as commercial.
6. The Single Family land use compose a handful of existing legal lots that do not meet the constrained residential zoning requirements but could be grandfathered in and potentially developed.

Ridge I & Ridge II

7. See Ridge I/II Sensitive Areas assumptions. In Ridge I, Vacant unconstrained parcels include a 14.3 acre parcel owned by the city, and 13.4 undeveloped acres remaining in the business park.

Snoqualmie Hills West

8. The total office acreage includes the 20 developed acres from the PSE annexation. In the developable area, 11 acres were subtracted for the PSE utility corridor easements and buffers, as calculated from the original submission for the PSE annexation

Snoqualmie Hills East; Snoqualmie Falls

9. Snoqualmie Hills East & Snoqualmie Falls have no additional assumptions for this table.

Mill

10. For the parcels requested for removal from King County of the UGA, parcels 202408-9017 & 202408-9020, 49 acres were removed.
11. Half of the acreage of parcels 292408-9006 & 302408-9001 (40.7 acres and 20.2 acres respectively) were removed on account of wetlands noted during a site visit.

Sensitive Areas: *Sensitive, Undevelopable areas met one of the sensitive area standards defined by City code.*

Streams

12. All suspected UGA streams were buffered 50 feet, assuming a Class 2 stream status without salmonids. Stream buffers are defined in SMC 19.12.170, subsection D. The Snoqualmie River is a Class 1 stream and was assumed to a have a minimum 100 foot buffer.
13. Streams in the downtown were not buffered as they lay adjacent to properties not subject to redevelopment at higher densities,

Wetlands

14. All suspected downtown wetlands were buffered 150 feet, the High Impact buffer distance for a Category I Wetland with a high level of function, so as to be conservative on development projections. Wetland buffers are defined in SMC 19.12.180, subsection G.
15. The Mill Pond and its projected 150 foot buffer were largely within the floodway; as such, the floodway of the Mill planning area was all classified as a sensitive area. Wetlands to the North of Mill Planning area were addressed independently due to additional information from a site visit. General wetland buffers are defined in SMC 19.12.180, subsection G.
16. Other UGA wetlands were identified and buffered 100 feet.

Steep Slopes

17. All UGA Steep Slope Hazard Areas, or believed slopes of 40 percent or greater, were derived from LIDAR data and classified as sensitive areas for this exercise. They were not buffered 50 feet as projected in SMC 19.12.140, subsection B, as the ability to makes that assumption from LIDAR data is difficult due to the high resolution and known anomalies associated with the data. It was assumed the indicated steep slopes area was sufficient for estimating future development restrictions without additional buffering.

Floodplain/Floodway

18. Floodplain acreages are tracked for their varying impact of development potential. Flood**plain** delineation pertains mostly to residential areas, as it significantly reduces the dwelling unit/acreage potential of re-/developments. Flood**way** areas prohibit new residential development, but new commercial developments are allowed provided they meet the no-rise requirement as defined in SMC 15.12.170 and/or are commercial uses developing within the existing building footprint of a previously residential land use.

Ridge I/II Sensitive Areas

19. As sensitive areas and their buffers were already delineated in Ridge development proposals, assumptions used these original delineated buffers, and additional buffering not conducted for Snoqualmie Ridge I&II sensitive areas.

Table 7.6
RESIDENTIAL DEVELOPMENT CAPACITY BY PLANNING AREA

Planning Area Land Use Designation	Developable Acreage	Re-developable Acreage	Total Available Acres with deductions	New Residential Units by 2032 SF	 MF	 Existing Units on Re-developable Acres	 Total New
Historic Snoqualmie							
Single Family Residential	0	3	0	0	0	0	
Mixed Use (Residential)	0	4	4	0	51	35	
Constrained Residential	19	38	57	13	0	27	
Subtotal	19	45	61	13	51	62	2
Snoqualmie Ridge I							
Mixed Use (Residential)	14	0	9	0	30	0	
Subtotal	14	0	9	0	30	0	30
Snoqualmie Ridge II							
Mixed Use (Residential)	120	0	73	827	182	0	
Subtotal	120	0	73	827	182	0	1009
Snoqualmie Hills West							
Innovative Mixed Use (res.)	38	62	55	205	205	17	
Single Family Residential	5	0	3	13	0	5	
Constrained Residential	23	0	15	3	0	1	
Subtotal	66	62	72	220	205	23	402
Snoqualmie Hills East							
Planned Residential	36	30	7	15	4	9	
Single Family Residential	38	87	91	365	0	41	
Constrained Residential	13	0	13	2	0	0	
Subtotal	87	117	111	382	4	50	336
Snoqualmie Falls							
Mixed Use (Residential)	9	0	9	64	40	0	
Planned Residential	60	0	49	197	42	0	
Constrained Residential	19	0	19	4	0	0	
Subtotal	88	0	77	265	82	0	347
Rattlesnake Ridge							
Constrained Residential	0	0	0	0	0	0	
Subtotal	0	0	0	0	0	0	0
Meadowbrook							
Constrained Residential	7	0	7	1	0	0	
Subtotal	7	0	7	1	0	0	1
Grand Total	**400**	**224**	**328**	**1,708**	**553**	**135**	**2,126**

Assumptions: Table 7.6

20. All actual acreages have removed sensitive areas plus their buffers; see notes under Table 7.5.
21. For all Vacant & Redevelopable Single Family and Planned Residential acreages, 20% subtracted for market availability, and 20% for probable rights-of-way (ROW) & public purposes: (*.80,*.80). The King County methodology subtracts an average of about 15% for rights-of-way (ROW) & public purposes.
22. All Single Family areas assume 4 dwelling units (DU) per acre after deductions.
23. All Constrained Residential areas assume 1 DU/5 acres for development.
24. All Planned Residential assumes 5 DU/acre after deductions.
25. All Planned Residential acreage is also reduced by a 15% set aside for formal parks (*.85) toward meeting the 35% park acreage requirement (assumes sensitive areas would compose 20% of that total).
26. For all in-progress developments governed by a development agreement (Kimball Creek and Snoqualmie Ridge I &II), units that were issued final occupancy at the end of 2010 were totaled and subtracted from remaining units to be built. Housing and population totals use these figures on top of the 20120 census for population projections, and to meet the updated housing targets set in 2011. As such, this 2010 housing snapshot is the most accurate reading of remaining housing commitments at that time.

Historic

27. This analysis assumes that existing single-family lots which could be grandfathered in will not develop.
28. There are 10 acres with 54 houses that are currently zoned for commercial, but with a current residential land use. Assuming half of these redevelop by 2032, 27 residential units would be lost in the downtown; these lost houses are accounted for under Constrained Residential land use.
29. There is 1.27 acres expected to redevelop at 10 DU/acre in the Mixed Use area off Olmstead, with retail below/housing on top. This will replace 8 existing houses.

30. There is 3.78 acres expected to redevelop at 10 DU/acre for a projected High Density housing downtown in the mixed use area, replacing an existing 27 houses.

Ridge I

31. A parcel retained by the City for affordable housing (8.5 acres after removing sensitive areas) is estimated to accommodate 30 residential units in the future at an assumed a density of ~3.5 DU/acre due to additional site constraints.

Ridge II

32. Acreage subtracts business-designated parcel acreages, as depicted in Table 7.7. Remaining units under housing caps, as calculated in 2010, were determined from the development agreement. Multifamily is determined by the required affordable housing units, as the developer has stated they will be apartments. Ridge development assumes 3.0 persons/unit, consistent with the 2010 Census. Other areas assume 2.5/unit.

Snoqualmie Hills West

33. For the residential portion of the Innovative Mixed Use land use, acreage underwent market value, ROW and parks deductions, then assumed 7.5 DU/acre, with 80% single family, 20% multifamily.
34. The southerly Constrained Residential section had standard market factor and ROW deductions, with 1 DU/5 acre development.
35. A small easterly strip of Single Family residential had standard market factor and ROW deductions, with 4 DU/1 acre development assumed.
36. For population, assumed a max of 75% redevelop/vacant will occur, as the area is currently less developed and will see more transition. This applies to Table 3.3 population notes.
37. For population, High Investment Value parcels, 9 parcels (a total of 53 acres) whose appraised land and improvement value exceeded $500,000, were considered less likely to develop & removed from tallies from the low projection, half assumed to develop in the medium projection, and all assumed to develop in the high population projection. This applies to Table 7.3 population notes.

Snoqualmie Hills East

38. Of the 41.2 acres of developable Planned Residential parcels , all are projected to be purchased by the Snoqualmie Tribe by 2032 and potentially added to federally recognized reservation land, except for 1 parcel of 7.2 acres outside of a likely tribe interest area
39. Of the 25 redevelopable acres of Planned Residential parcels, all are projected to be purchased by the Snoqualmie Tribe by 2032 and potentially added to federally recognized reservation land.
40. Of the 38 acres of developable Single Family parcels, 12 acres (6 parcels) are projected to be purchased by the Snoqualmie Tribe by 2032 and potentially added to federally recognized reservation land.
41. Of the 87 redevelopable acres of Single Family parcels, 12.5 acres (6 parcels) are projected to be purchased by the Snoqualmie Tribe by 2032 and potentially added to federally recognized reservation land.
42. For population, assumed a max of 25% redevelop, 75% vacant will occur, as the area is currently more developed and will see less transition. This applies to Table 7.3 population notes.

Snoqualmie Falls

43. The 36.5 acres of planned residential are calculated by the Salish Development Agreement, which outlines a 250-room hotel. In addition, the Fourth Amendment to the Salish Development Agreement commits 175 residential units, 15% of which are required to be affordable. The table assumes 149 single family units and that the 26 affordable units will be multifamily. The Fifth Salish Development Agreement Amendment did not alter the residential unit commitment.
44. Kimball Creek development was originally for 85 SF, and 40 affordable MF. By 2010, 21 SF had been completed (85-21 = 64 remaining). Given the delays in the affordable housing thus far, the 40 MF are not projected to be built until after 2018. See Capital Facilities element table 9.2 for the 6-year development projections associated with this development and Planning Area.
45. The residential section of the Snoqualmie Falls planning area outside City limits but within the UGA assume planned residential densities at 4 du/acre and 15% multifamily.

Mill

46. The Mill Planning Area has no residential planning areas and hence is not included in this table.

Table 7.3 2022 & 2032 Population Projections

46. In table 7.3, 2022 projections assumed that all of the Ridge I & II areas would be developed, none of the Hills areas would see development, and half of the other areas' population growth would have occurred. By 2032 it is assumed all of the predicted population growth (within stated assumptions) will have occurred. Ridge development assumes 3.0 persons/unit, per the 2010 Census. All other areas assume 2.5/unit.

Table 7.7
EMPLOYMENT CAPACITY & FORECAST, BY PLANNING AREA & DESIGNATION

Planning Area Land Use Designation	Available Acreage	Redevelopable Acreage*	# New Jobs – Employment Capacity					Existing Jobs	Total Job Cap.	2032 Growth Assumption	2032 Total Emp.
			Retail	Office	L.I.	Public	Total New				
Historic Snoqualmie											
Commercial – Retail/Services	0	0	0	0	0	0	0	255	255	0%	255
Commercial – FBC	1	4	57	14	21	0	92	5	97	75%	74
Mixed Use – Office	0	1	0	15	0	0	15	0	15	100%	17
Office Park	2	0	0	46	0	0	46	30	76	100%	76
Public/Institutional	0	0	0	0	0	0	25	330	355	100%	335
Subtotal	3	5	57	74	21	0	177	**620**	**797**		**777**
Snoqualmie Ridge I											
Mixed Use – Retail/Services	2	0	37	0	0	0	37	462	499	100%	499
Mixed Use – IT/Office/Other	8	0	0	184	0	0	184	329	513	100%	513
Mixed Use – Manufac/Lt Ind.	3	0	0	0	68	0	68	671	739	100%	739
Mixed Use – Warehouse/Dist.	0	0	0	0	0	0	0	135	135	0%	135
Mixed Use – Pub/Institut.	0	0	0	0	0	10	10	213	223	100%	223
Subtotal	13	0	37	184	68	10	299	**1,810**	**2,109**		**2,109**
Snoqualmie Ridge II											
Mixed Use – Retail/Services	6	0	70	0	0	0	70	20	90	100%	90
Mixed Use – Office Park	1	0	0	14	0	0	14	0	14	100%	14
Mixed Use - Public/Instit.	51	0	0	0	0	100	63	0	63	100%	63
Subtotal	58	0	70	14	0	100	146	**20**	166		166
Snoqualmie Hills West											
Planned Business Park	52	19	0	1,053	0	0	1,053	0	1,053	95%	1,000
Retail/Services	0	0	0	0	0	0	0	15	15	0%	15
Subtotal	52	19	0	0	0	0	1,053	**15**	**1,068**		**1,0**15
Snoqualmie Falls											
Mixed Use –Office/Hospitality	6	3	0	300	0	0	300	213	513	100%	513
Planned Comm./Ind.	4	0	0	0	0	0	0	0	0	0%	0
Commercial	0	0	0	0	0	0	0	44	44	0%	44
Utility Park	0	0	0	0	0	0	0	0	0	0%	0
Subtotal	10	0	0	300	0	0	300	**257**	**557**		**557**
Meadowbrook											
Parks and Open Space	0	0	0	0	0	0	0	26	26	0%	26
Planned Comm./Ind.	0	6	0	0	0	0	0	2	2	0%	2
Resource Extraction	0	0	0	0	0	0	0	2	2	0%	2
Public/Instit. (SMS, SES)	0	0	0	0	0	0	0	37	37	0%	25
Subtotal	0	6	0	0	0	0	0	**67**	**67**		**67**
Mill											
Planned Comm/Ind.	63	120	0	714	931	0	1,645	20	1,665	50%	842
Util. Park (Public Works)	0	0	0	0	0	5	5	25	30	100%	30
Subtotal	63	120	0	714	931	5	1,650	**45**	**1,695**		872
Various jobs, unknown area								**172**			172
Grand Total	**199**	**153**	**164**	**2,339**	**1,019**	**78**	**3,642**	**3,002**	**6,472**		**5,735**

Assumptions: Table 7.7

46. Employment totals based on the Employment Survey that went out with the annual 2010 Business Relicensing paperwork; the Business Park includes reported development estimates since that time.
47. Full-time, part-time and seasonal positions were each counted as one full-time employment (FTE) position.
48. For Retail uses 15 FTE /acre was assumed; this is due to the lack of large regional retailers or fast-food/high turn-around establishments in the City.
49. For Planned Commercial Industrial (PCI)/Light Industrial, 10 FTE/acre was assumed due to some probable mix of warehousing & distribution continuing in development.
50. For Office Park uses 23 FTE /acre was assumed, based on analysis of current average office use & employment levels in the Business Park.
51. Business Park and PCI acreages reduced by 15% for formal park set-aside and a further 20% for ROW. Market Availability accounted for in 2032 Growth Assumption column unless otherwise stated.
52. This methodology was reviewed and found to be consistent with employment generation estimates per the King County Buildable Lands Methodology. That methodology assumed a Floor-Area Ratio (FAR) for Business Office/Retail and Planned Commercial/Industrial of 0.3; an FAR of 0.6 for Hospitality; and a FAR

of 0.1 for Public/Institutional (schools). The Floor Area per Employee (FAE) for Business Office/Retail and Planned Commercial/ Industrial was 500, 600 &1,000 square feet; a 650 square foot FAE for Hospitality; and a 1,000 square foot FAE for Public/Institutional (schools). Market Factor assumptions varied. The two methodologies showing only a net 30 employee generation difference citywide, and the city retains the analysis on-file at City Hall if review is desired. Future updates will fully convert the land use analysis methodology to the King County display, pending more research on the appropriate FAR/FAE assumptions the city should utilize for new developments, given recent development activity.

Historic

53. There are 1.27 acres projected to develop at 15FTE/acre when lots along Olmstead shift to a mixed-use retail below/housing on top development.
54. Using Assessor data, 54 houses totaling 10 acres were identified throughout the historic downtown zoned for commercial. Due to complications of redeveloping in the floodway and flood zone, it is estimated only 50% of these houses will develop to a commercial use, within the Form-Based Code area.
55. Office Park estimations maintained the same estimate as previously for current hospital employment.
56. For Public employment in the Historic Area, there are 37 employees at City hall; 125 at Mt Si High School; 63 at Snoqualmie Elementary; and 105 at the School District (SVSD) Administrative offices.

Ridge I

57. Retail redevelopment predicted for BSIP lot 12A (parcel 785180-0120); minus sensitive areas and buffers, it is 2.5 acres at 20 FTE/acre.
58. Office Park development predicted for BSIP lots 5, 7, 11 and what remains of lot 19 (4.2; 4.1; 4.0; and 0.75 acres respectively) at 23 FTE/acre. Lots with vacant buildings subject to re-occupancy not included (8&9).
59. Light Industrial development predicted for BSIP lots 4 & 20 (2 & 1 acres respectively) at 23 FTE/acre, based on existing average FTE/acre generation.
60. The Mixed Use Public employment includes Police & Fire employees, an estimate for PSE facilities, and 58 employees at Cascade View Elementary.

Ridge II

61. Commercial acreages in this area were reduced by 20% for ROW as the area is not yet developed.
62. Three parcels, in whole or part, are predicted for retail: Parcel 022307-9067, with acreage reduced from 5 to 4 acres before buffering due to wetland and a planned stormwater retention pond; 4.2 acres of parcel 022307-9077; and parcel 785333-0030, which allows for a small office, retail or daycare.
63. The remaining 1.5 acres of parcel 022307-9077 and parcel 022307-9076 predicted for hospital development were calculated at 15 FTE/acre.
64. Predicted an elementary school will develop from the Snoqualmie Valley School District land set-asides in the Ridge. Employment prediction on par to downtown elementary employment.

Snoqualmie Hills West

65. From the 63.55 developable and 19.46 redevelopable Business Park acres, 11.5 acres was removed based on the April 2009 Mt Si Annexation indicated PSE Utility corridor & buffers. Employment generation was estimated at 23 FTE/acre.
66. Acreages were reduced by 20% for ROW.
67. No employment predicted with the Mixed Use land use in this area at this time.

Snoqualmie Falls

68. Salish Development Agreement plans for a 250 room hotel; a 4 star hotel averages 1.2 FTE/room = 300 employees (employment average derived from World Tourist Organization estimates/room).
69. No employment associated with Utility Park area; PSE employees based out of Business Park location.

Meadowbrook

70. For Public employment in the Meadowbrook area, there are 37 employees at the High School ninth-grader campus, formerly known as the Snoqualmie Middle School.
71. Additional development not currently projected for Meadowbrook.

Mill

72. Half of the acreage of parcels 292408-9006 & 302408-9001 (40.7 acres and 20.2 acres respectively) were removed on account of wetlands noted after site visit.
73. Assumed 50% of available PCI acreage would develop by 2032 given need for major infrastructure improvements.
74. With removal of the northern gravel mine operations from the UGA, no mining jobs were included in current/projected employment totals.

Table 7.4 2022 & 2032 Employment Projections

75. In table 7.4, 2022 projections assumed that all of the Historic, Ridge I & II and Snoqualmie Falls employment would be in Place, that 10% of the Mill employment would be in place, and that no Hills employment would be in place. By 2032 it is assumed all of the remaining predicted employment would be in place.

Transportation
Table of Contents

LIST OF TABLES

LIST OF FIGURES

A. INTRODUCTION

The Transportation Element is intended to guide transportation system improvements to meet Snoqualmie's existing and future travel needs. This Element incorporates local land use planning and the regional transportation system, helping the City to develop a comprehensive, multi-modal transportation system to serve the planning area, while supporting the broader long-range goals of community development. Specifically, the Growth Management Act (GMA) requires:

- Using land use assumptions in estimating travel demand;
- An inventory of existing transportation facilities & services;
- Level of Service standards to gauge system performance;
- Identified actions and requirements to bring existing facilities & services up to standard;
- Future traffic forecasts based on the land use plan;
- Identified improvements and programs to address current and future transportation system deficiencies;
- Identified and designated planned pedestrian and bicycle improvements to promote healthy lifestyles;
- A realistic multi-year financing plan, balanced with level of service standards and the land use element; and
- An explanation of intergovernmental coordination and regional consistency.

GMA further requires that transportation improvements be made concurrent with development. For the City of Snoqualmie, it is also important to provide an efficient transportation system that minimizes disruption to the natural environment and maintains the character of city neighborhoods.

Goal 8: ***A local transportation system that provides for a full spectrum of safe, efficient and convenient travel within and through the City and supports the City's vision for a unified, prosperous and complete community.***

B. TRANSPORTATION: DRIVING FACTORS

Transportation planning is influenced by many factors, though some are not immediately apparent to the casual observer. Street connectivity and infrastructure guide many capital project programs so that traffic will flow at a reasonable pace, and bicycles and pedestrians have safe access to neighborhoods, schools and amenities. However, improvements are also influenced by utility repairs needed under the roads, infrastructure age and large projects that improve City aesthetics, which helps attract and retain residents, businesses and tourists.

A main issue for the City's transportation system is balancing the need to reconstruct older, failed streets and the maintenance needs of new streets. Many of the streets in Snoqualmie Ridge I & II were constructed at generally the same time, so that roads in these newer neighborhoods will need maintenance or repair on a similar schedule, based on road type, similar ages and levels of use. However, streets in the older part of the City, such as the Historic Downtown core, include many failed roads that already require reconstruction – a much costlier proposition, but one that still requires remedy. In planning facilities improvements, the City has to balance the funding needs of facilitating traffic flow and safety, while also keeping the inventory of roads healthy and functioning, extending useful life as long as possible to reduce costs.

Another unusual factor influencing planned road improvements is the water system below our streets. In the 1940's and 1950's the City installed several miles of potable water and wastewater ACP, or Asbestos-Cement Pipe. Although this pipe has an estimated 70-year lifespan in ideal conditions, some pipes are reliable only for 40 or 50 years due to internal/external calcium leaching from conveyed or ground water. Over time, some environments accelerate corrosion and loss of mechanical strength, leading

How Long Will It Last?

Based on levels of use, materials have different lifetimes before repair and replacement is needed.

Maintaining asphalt traditionally requires crack-sealing after 10-12 years, patching at 15-18 years and a grind and overlay at 20 years.

If an asphalt road does not have a grind and overlay at the 20 year mark and continues deteriorating, it can eventually fail and require reconstruction – which is much, much more expensive.

Grind and overlay of existing roads is needed alongside reconstruction of older deteriorated roads – to make sure that newer roads do not unravel to where they need replacement, tripling or quadrupling the costs of simple maintenance.

to pipe failures or water main breaks.[1] Maintaining water and sewer system integrity necessitates digging up utilities under the roads and, if it corresponds with other needed road repairs, advancing the timeline of some street improvement projects to more efficiently use available funds.

> *"You know more of a road by having traveled it than by all the conjectures and descriptions in the world."*
>
> — *William Hazlitt*

Major transportation capital improvement projects will also be a focus in the City for years to come. Transportation planning is coordinated with other objectives of the Comprehensive Plan, such as economic development, community character and environmental aims, which all play a key role in project design. The City will continue to seek funding for arterial and collector improvements such as the Downtown Phase II project, the Tokul Roundabout, and Snoqualmie Parkway rehabilitation. New collector roads in the UGA as it is developed will also be major transportation capital improvements, helping serve new development and provide for additional roadway connections between the Snoqualmie Parkway, SR202 and other existing arterials and collectors. Some bicycle and pedestrian facility improvements, which support healthy physical activity among citizens and youth, may be bundled into the large projects or undertaken separately from street improvements. As such, some non-motorized projects such as the Riverwalk, Snoqualmie River Pedestrian-Bicycle Bridge and completing missing trail links, may be listed City parks and trails system improvements, but nonetheless are important in multimodal transportation.

The Transportation Element was prepared in several stages, including: inventorying existing transportation facilities and services; 2032 travel forecasts and demand analysis; objectives, policies and standards development; travel system needs and deficiencies evaluation; and identification of transportation system improvements and financing strategies.

C. TRANSPORATION CONCEPTS

Two important concepts underlying this Element are the functional classification system and level of service.

Functional Classification: The functional classification system provides for a hierarchy of roadways that emphasize through-traffic movement and access to adjacent properties (or some combination of these functions, depending on the roadway's functional classification). These functional classifications are used in planning and designing appropriate roadway facilities. The definitions presented in Table 8.1 serve as a general guide for classifying streets.

Table 8.1
FUNCTIONAL CLASSIFICATION DEFINITIONS

Classification	Definition	Typical Daily Traffic Volume
Freeway/ Expressway:	Interregional divided highways connecting major centers. Typically, freeways have two or more lanes for traffic in each direction; access is limited to interchanges designed for higher speed merging/diverging traffic.	>30,000
Principal Arterial:	Intercommunity roadways connecting community centers or major facilities. Principal Arterials are generally intended to serve predominantly "through" traffic with minimum direct service to abutting land uses. Spacing between parallel principal arterials spacing is generally two miles or greater.	5,000–40,000
Minor Arterials:	Provides for intra-community travel for areas bounded by the principal arterial system. Minor Arterials serve trips of moderate length and provide more direct access to abutting properties than Principal Arterials. Spacing of Minor Arterials is typically less than two miles.	3,000–15,000
Collector Arterial:	Provides for movement within a community, including connecting neighborhoods with smaller community centers. Collector Arterials also provide connections to Minor and Principal Arterials. Property access is generally a higher priority for Collector Arterials with a lower priority for through traffic movements. Collector Arterials spacing is generally one mile or less.	1,000–5,000
Local/ Access Streets:	Primary function of local/access streets is access to abutting properties. Local streets include various designs depending on access needs.	0–1,000

[1] Exponent Consulting, "Asbestos-Cement (Transite) Pipe in Water Distribution Systems," Information page, 2010. *www.exponent.com/asbestos_cement_pipe_water_distribution*

Level of Service (LOS) is a quantitative measure of transportation system operating conditions that helps interpret the significance of roadway/intersection traffic delays; it generally measures speed, travel time, traffic interruptions and convenience. Level of service for signalized intersections measures control delay, indicating driver discomfort, fuel consumption and increased travel time. The delay experienced by a motorist is influenced by several factors including control, geometries, traffic and incidents. Total delay is the difference between the actually experienced travel time and the hypothetical travel time (without traffic control, geometric delay, incidents and other vehicles). Tables 8.2 & 8.3 provide Highway Capacity Manual (2000) signalized & unsignalized intersection LOS definitions.

Table 8.2
LEVEL OF SERVICE DEFINITION FOR SIGNALIZED INTERSECTIONS

Level of Service	Delay Per Vehicle (Seconds)
A	Less than 10
B	Between 10 and 20
C	Between 20 and 35
D	Between 35 and 55
E	Between 55 and 80
F	Greater than 80

LOS A Delays are less than 10 seconds per vehicle, occurring when progression is very favorable, and most vehicles arrive during the green phase. Most vehicles do not stop. Short cycle lengths may contribute to minimal delay.

LOS B Delays between 10 to 20 seconds per vehicle, generally occurring with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher average delays.

LOS C Delays between 20 to 35 seconds per vehicle, which may result from fair progression and/or longer cycle lengths. Individual vehicles may wait through more than one signal cycle. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.

LOS D Delays between 35 to 55 seconds per vehicle. At level D, congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths or high traffic volumes. Many vehicles stop, and fewer vehicles proceed through the intersection without stopping.

LOS E Delays between 55 to 80 seconds per vehicle, generally indicating poor progression, long cycle lengths and high traffic volumes.

LOS F Delays of over 80 seconds per vehicle, often occurring with over-saturation, i.e., when arrival flow rates exceed intersection capacity. Poor progression and long cycle lengths may also be major contributing causes.

Table 8.3
LEVEL OF SERVICE DEFINITION FOR UNSIGNALIZED INTERSECTIONS

Level of Service	Delay Per Vehicle (Seconds)
A	Less than 10
B	Between 10 and 15
C	Between 15 and 25
D	Between 25 and 35
E	Between 35 and 50
F	Greater than 50

For unsignalized intersections, LOS is determined by the length of delay for each separate turning or through movement, and not defined for the intersection as a whole.

As part of the updated Transportation Element of the Snoqualmie Comprehensive Plan, the City evaluated pedestrian and bicycle level of service (LOS) through the downtown section of the City. Given limited resources, a more comprehensive review of pedestrian and bicycle LOS was not possible. It is notable, however, that Snoqualmie has adopted progressive design guidelines in the newer areas of the City and these areas have extensive high quality facilities to accommodate non-auto travel.

Snoqualmie is committed to expanding the multimodal LOS analysis to eventually encompass the entire City and at that time, there is an expectation that full multimodal concurrency standards would be adopted based on the new LOS results. However, until the full citywide multimodal LOS system is developed and calculated, Snoqualmie proposes the following transportation mobility standards for concurrency review:

Auto: LOS D or better as calculated by the most recent version of the Highway Capacity Manual on arterial/collector street intersections, except for side-street stop-controlled intersections where a traffic signal warrant is not met. Intersections meeting an "ultimate design standard" are also exempt from the auto LOS threshold. The analysis period is the AM or PM peak hour, whichever is more congested.

Transit: Since transit vehicles use the same streets as autos in Snoqualmie and no dedicated transitways are planned, the same auto LOS standards shall apply for transit vehicles. This transit LOS method describes how much schedule delay transit vehicles may face during the congested peak hour period.

Pedestrians and Bicycles: Proposed development shall not remove any existing pedestrian or bicycle facility or preclude the construction of any planned facility in the City.

All public and private new development and redevelopment must also comply with the Snoqualmie municipal code. Under Ordinance 1092, passed in February 2012, Snoqualmie codified a Complete Streets policy requiring that all new or substantially redeveloped arterial and collector streets shall be designed and constructed with appropriate facilities for pedestrians, bicyclists, transit users and persons of all abilities to the extent feasible, with the evaluation of local streets for pedestrian facilities, and streets proposed to not be a Complete Street reviewed by City Council.

For more information on these topics, please see the following sections

Automobiles	Provides service analysis for City intersections, current and future, pre- and post-intersection improvements.	Transportation Element Section D.3 & E.2
Transit	Reviews Metro transit routes and the intravalley Snoqualmie Valley Transportation shuttle. See Figure 8.5 for Transit Routes in the City.	Transportation Element Section D.5
Pedestrians and Bicycles	Multimodal recommendations for Downtown Snoqualmie; expanded description of multimodal analysis and criteria.	Transportation Element Section E.3

D. EXISTING TRANSPORTATION SYSTEM

This section details the existing transportation facilities and travel patterns for the City and its surrounding planning areas, including air, water, and land transportation; transit operations; and levels of service (LOS) at key City intersections. Under GMA, any facilities or services operating below the established LOS require the City to take specific actions. Identifying existing transportation deficiencies helps guide future transportation improvements.

D.1 AIR, WATER & RAIL

Goods and services to and from the City of Snoqualmie via air, water, or rail use a variety of transportation facilities from outside the City. The nearest commercial passenger and air freight operations are at Sea-Tac Airport (operated by the Port of Seattle) and King County International Airport/Boeing Field (operated by King County). The nearest general aviation airport is a private facility in Fall City. There are no water transportation facilities near Snoqualmie, although goods to and from the City may pass through Seattle and Tacoma ports. While there is a set of train tracks running through downtown Snoqualmie, there is no freight rail service in the City; the Northwest Railway Museum operates weekend excursion passenger rail service between Snoqualmie and North Bend. The following plans and reports contain inventories, plans, policies and projects for these modes of transportation.

- Air Travel—Puget Sound Regional Council's "Regional Aviation System Plan;" Port of Seattle's "Sea-Tac Master Plan;" King County's "Boeing Field Master Plan."
- Water Travel—Ferries: WSDOT State wide Multi-modal Transportation Plan.
- Rail—WSDOT's "2010-2030 Freight Rail Plan."

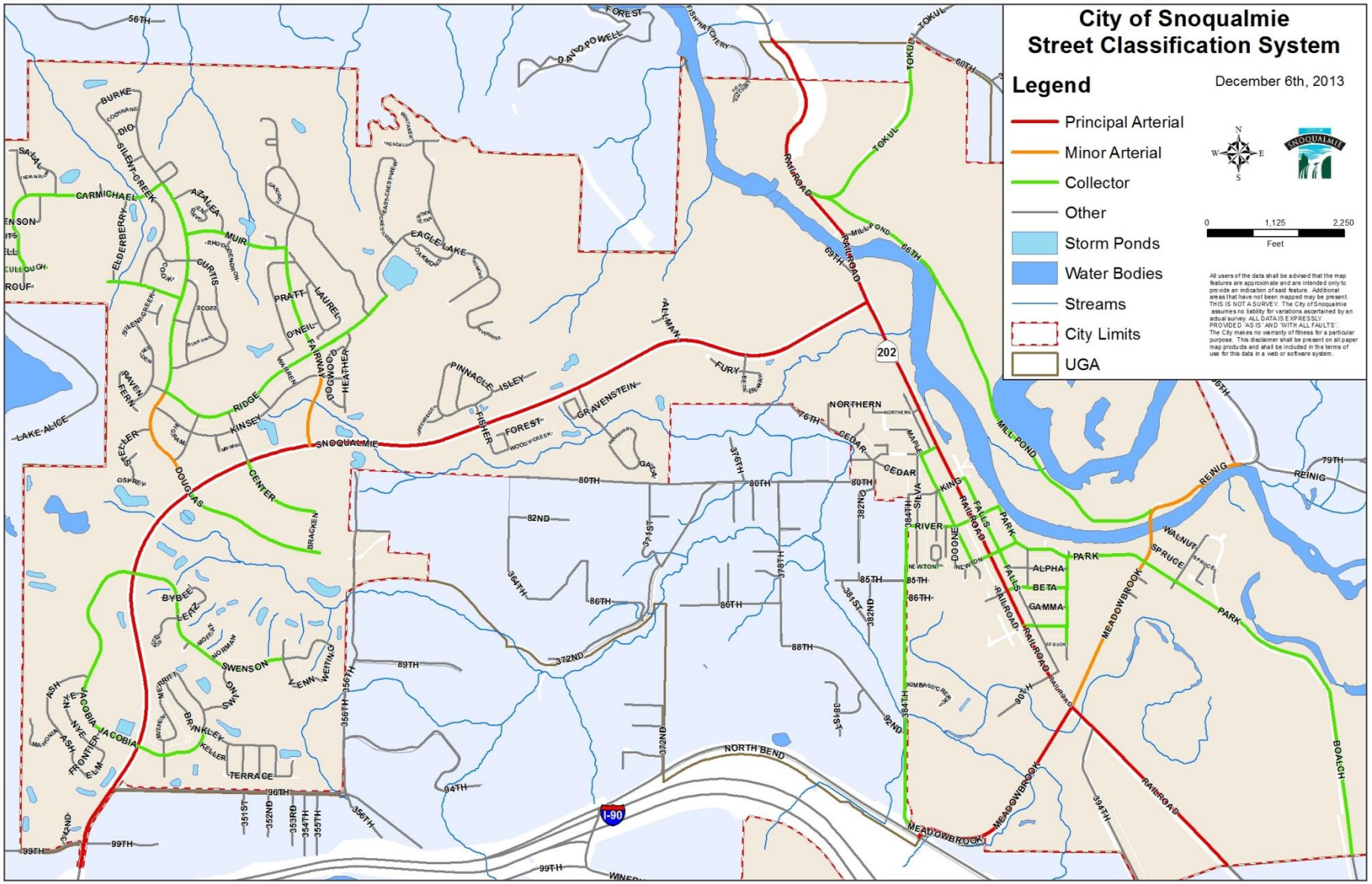
See Figure 8.1 for the current road classification system; Table 8.12 also provides road classes in Appendix 8-I.

D.2 ROADS & TRAFFIC CONTROLS

Snoqualmie and its UGA are principally served by Interstate 90 (I-90), and State Routes (SR) 18 & 202; Snoqualmie Parkway, Meadowbrook Way and SE North Bend Way are principal arterials. The main roads serving the City are:

- **Interstate 90** is a six-lane interstate freeway south of Snoqualmie; I-90 provides access to/from Issaquah, Bellevue and Seattle to the west, and to/from North Bend, Snoqualmie Pass and Eastern Washington to the east. Primary access to the City is through the Snoqualmie Parkway/SR-18 (exit 25); the SE North Bend Way interchange on I-90 (exit 27) also provides westbound access. From the east, Bendigo Boulevard (exit 31) links SR-202 with I-90 in the City of North Bend.
- **Snoqualmie Parkway** is a four-lane principal arterial providing primary access from Snoqualmie Ridge neighborhoods to I-90, SR-18 and SR 202. It has a landscaped median and a separate, paved non-motorized path on both sides of the street from SE Douglas Ave. to SR 202. Southwest of Douglas Ave., the path continues only on the west side, south to SE 96th St. North of SE 96th St, the posted speed limit is 40 mph.
- **State Route (SR) 202** is a two-lane principal arterial serving the City and surrounding areas; SR 202 provides access to Snoqualmie Falls, Fall City and Redmond to the northwest; to Carnation and Duvall to the north; and North Bend and I-90 to the southeast. In downtown Snoqualmie, the speed limit is 30 mph, increasing to 45 mph near Snoqualmie Falls, and to 50 mph between Meadowbrook Way SE and the Snoqualmie River Bridge at Tollgate Farm in North Bend.
- **SE North Bend Way** is a four-lane, 50-mph principal arterial that parallels I-90. It connects North Bend with the Snoqualmie I-90 freeway interchange (exit 27); provides access to Snoqualmie Casino and Snoqualmie Point Park; and links downtown Snoqualmie to I-90 via Meadowbrook Way SE.
- **Meadowbrook Way SE** connects SE North Bend Way to SR 202 and the residential areas northeast of downtown Snoqualmie. Between SE North Bend Way and SR 202, Meadowbrook Way is classified as a principal arterial; northeast of SR 202, it is a minor arterial. North of the Snoqualmie River, Meadowbrook Way SE becomes SE Reinig Road under King County jurisdiction. The Meadowbrook Way one-lane bridge over the Snoqualmie River is controlled by a traffic signal; weight limits restrict large truck usage.
- **384th Avenue SE** is a collector arterial serving neighborhoods west of SR 202. It is a direct route between downtown Snoqualmie and North Bend Way, travelling through residential and undeveloped areas. The speed limit is 35 mph on entering the City.

Figure 8.1 *Street Classification System*



D.3 TRAFFIC VOLUMES, LEVEL OF SERVICE & SAFETY

Average weekday traffic volumes for key city corridor segments are estimated in Figure 8.2 on the next page.[2] This figure shows that Snoqualmie Parkway's traffic volume at the southwest end near I-90 is about double the volume of that near SR-202, reflecting Snoqualmie Ridge residential and business growth, and the dependence on I-90 for daily commuting. Traffic volumes on SR 202 north and south of downtown are both about 8,000 vehicles per day. Table 8.4 shows the calculated levels of service (LOS) at 25 study intersections based on these PM peak hour traffic volumes. All intersections in the City meet the City's primary LOS D PM peak hour standard, with the highest delays on the two I-90 ramp junctions at Snoqualmie Parkway and the River St. & SR 202 unsignalized intersection, all of which operate at LOS D. All other city intersections operate at LOS C or better. While AM peak hour traffic is generally less than PM peak hour traffic, the AM peak hour LOS was also evaluated at the I-90 WB Ramps/Snoqualmie Pkwy intersection due to the queuing issues at this location. This intersection operates at LOS D in the AM peak hour with 44 seconds of average delay.

Table 8.4
INTERSECTION LEVEL OF SERVICE (LOS), 2010

Intersection	Traffic Control	PM Peak Hour Delay (in seconds)	Level of Service
I-90 EB Ramps/Snoqualmie Pkwy	Signal	37	D
I-90 WB Ramps/Snoqualmie Pkwy	Signal	43	D
SE 99th St/Snoqualmie Pkwy	Stop Control	18	C
SE 96th St/Snoqualmie Pkwy	Stop Control	20	C
Jacobia St/Snoqualmie Pkwy	Signal	<10	A
Swenson Dr/Snoqualmie Pkwy	Signal	<10	A
Douglas Ave/Snoqualmie Pkwy	Signal	13	B
Center Blvd/Snoqualmie Pkwy	Signal	<10	A
Fairway Ave/Snoqualmie Pkwy	Signal	<10	A
Fischer Ave/Snoqualmie Pkwy	Stop Control	19	C
Better Wy/Snoqualmie Pkwy	Stop Control	12	B
SR 202/Snoqualmie Pkwy	Signal	12	B
SR 202/Mill Pond Rd	Stop Control	15	C
SR 202/Tokul Rd	Stop Control	15	C
SR 202/Fir St	Stop Control	16	C
Fir St/Maple St	Stop Control	<10	A
SR 202/River St	Stop Control	25	D
River St/Maple St	Stop Control	<10	A
Beta St/Falls Ave	Stop Control	10	A
SR 202/Beta St	Stop Control	18	C
SR 202/Meadowbrook Wy	Signal	16	B
Meadowbrook Wy/Park St	Stop Control	<10	A
Meadowbrook Wy/Mill Pond Rd	Stop Control	10	A
Meadowbrook Wy/384th Ave	Stop Control	10	A
Meadowbrook Wy/North Bend Wy	Stop Control	22	C

[2] For more information on Methodology, see Appendix 8-II: Average Daily Traffic & LOS, Methodology.

Figure 8.2 *Average Daily Traffic Volume*

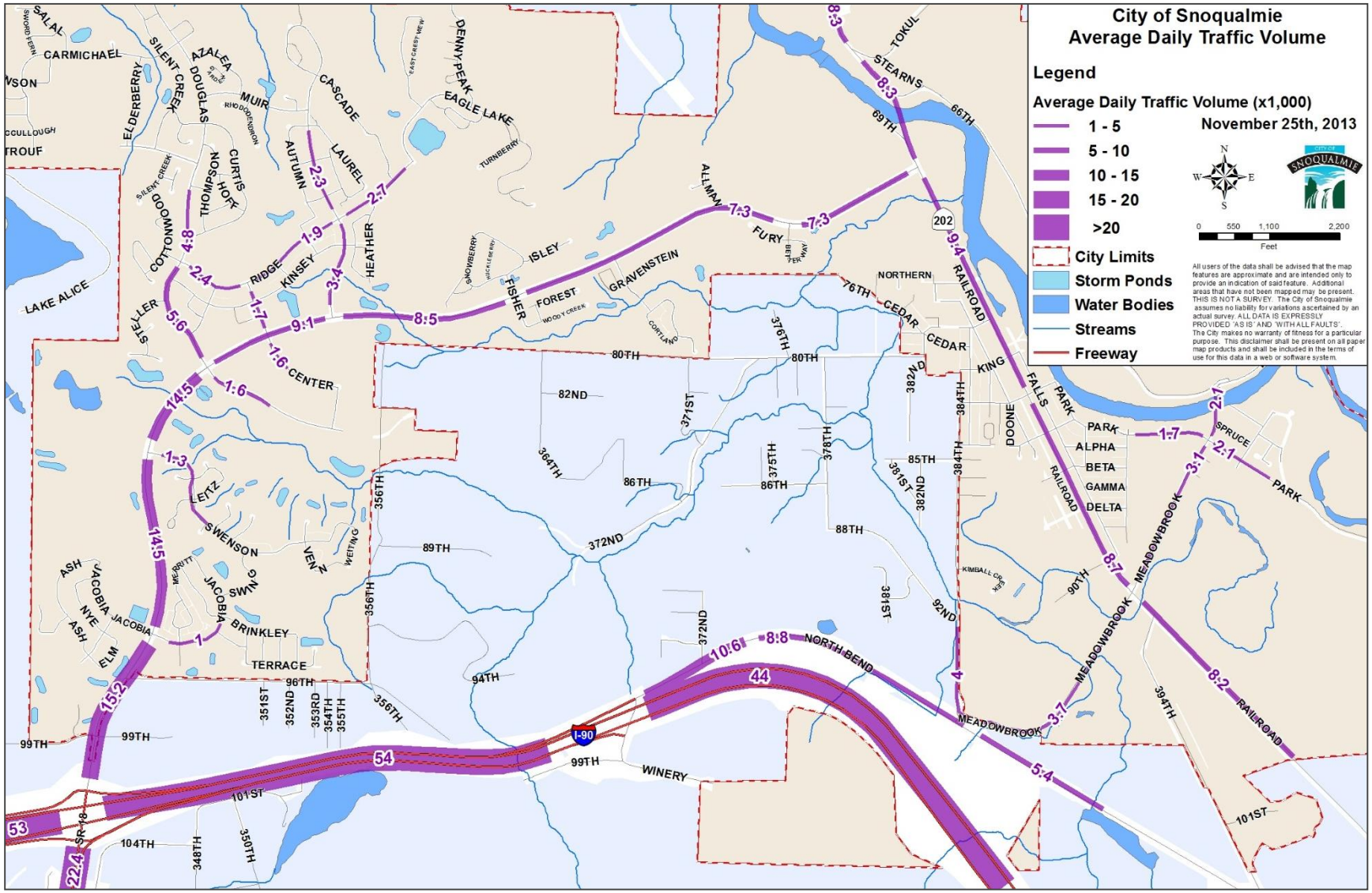
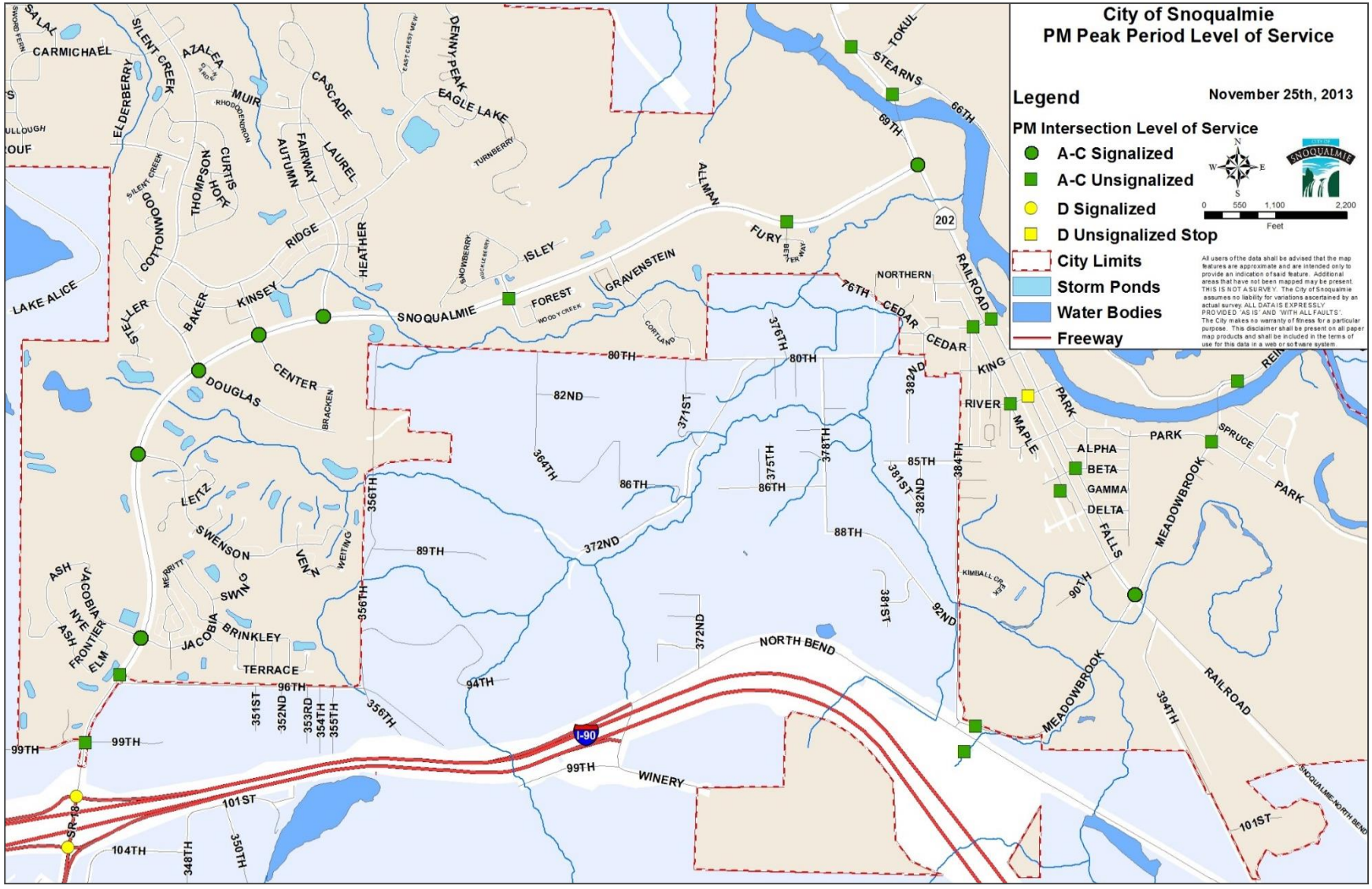


Figure 8.3 *PM Peak Period Level of Service for Study Area Intersections*



Traffic Safety

City Police Department collision data from January 1, 2007 to October 26, 2010 is summarized in Table 8.5. The table identifies collision location, type and whether injuries were reported. The most common type of collision was hitting a parked car, accounting for 22% of all collisions in the City. Rear-end and hitting an object/running off-road were the next most common collision types, each accounting for 16% of all collisions; wildlife collisions where the next most common type at 13%. While injury collisions are relatively uncommon in Snoqualmie (6% of all collisions), bicycle/pedestrian, head-on and side-impact collisions were the most frequent collision types resulting in injury. Approximately half of reported collisions occurred at intersections.

Figure 8.4 maps collisions in the City between 2007 and 2010, categorized by three collision types: property damage only, injury, and wildlife-related collisions (separated from the property damage only since they were fairly common and often located along Snoqualmie Parkway). As the City continues to develop, the prevalence of wildlife-related collisions on Snoqualmie Parkway may decrease over time.

As shown on Figure 8.4, seven of the fourteen injury collisions occurred on SR-202, with three occurring near the SR 202/Tokul Rd intersection. Data does not indicate a pattern at this intersection: One collision involved a motorcycle avoiding a car; one involved a rollover; and the other was a side-impact crash. Two of the fourteen injury collisions involved a crash between a bicycle and a motorist.

While no traffic fatalities were reported in the January 2007-October 2010 police department data, a fatal collision did occur on November 14, 2010 on Meadowbrook Way SE near Railroad Ave.; police indicated that the driver was not wearing a seatbelt when speeding, and lost control of the car.

Table 8.5
CITYWIDE COLLISION SUMMARY: 2007-2010*

Type of Collision	Total Collisions	Injury Collisions	Percent of Total
Wildlife	32	0	**13%**
Ice/Snow Related	11	1	4%
Bicycle/Pedestrian	4	2	2%
Hit Parked Car	55	0	**22%**
Rear-end	40	1	**16%**
Side-Impact	22	5	9%
Head-on	3	2	1%
Improper Turn/ Failure to Yield	18	0	7%
Hit Object/ Ran Off Road	40	1	**16%**
Other	24	0	10%

***** *Source: City of Snoqualmie Police Department*

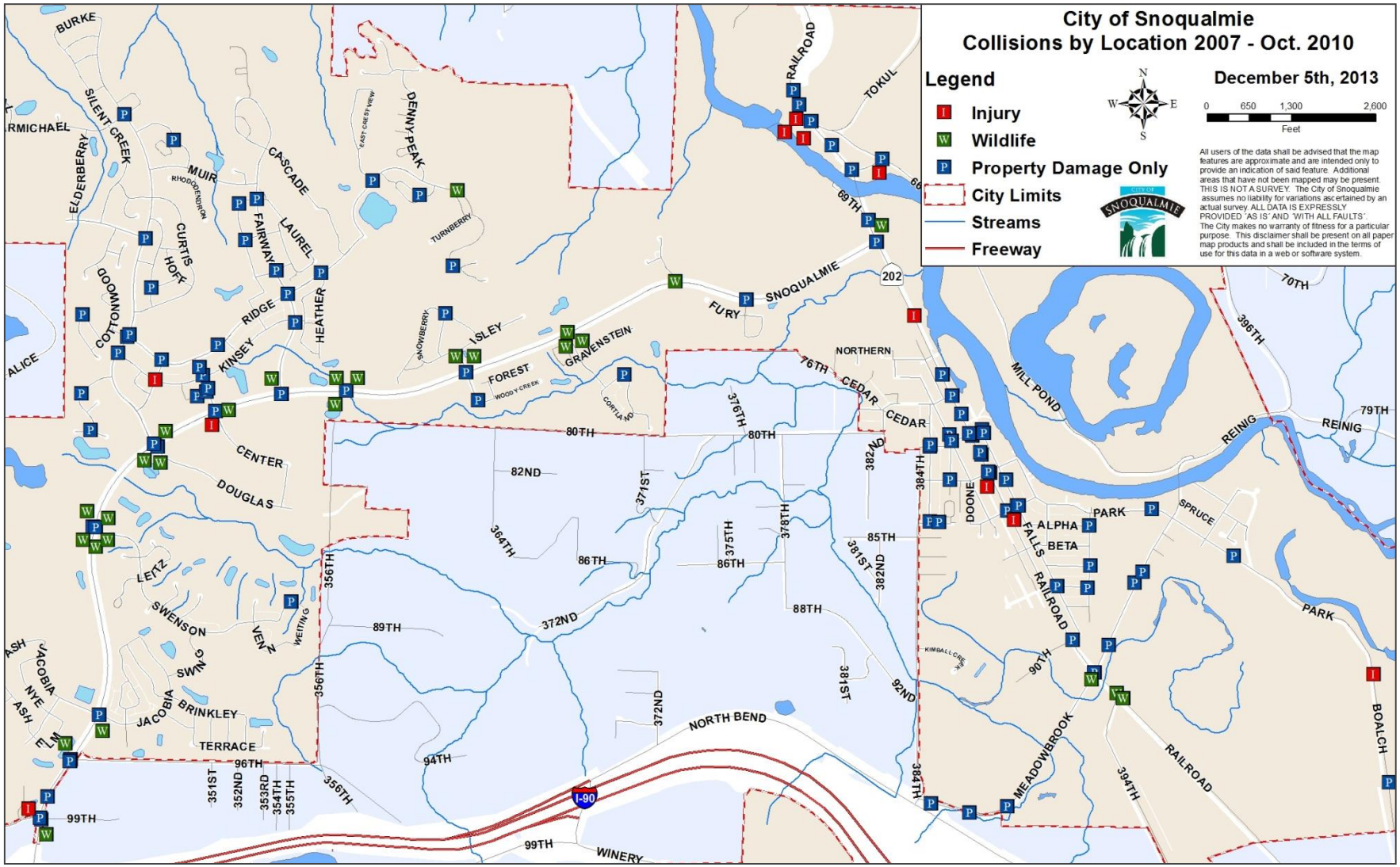
WSDOT publishes average roadway segment collision rates by roadway classification for different state areas, providing a general comparison to City collision rates, as shown in Table 8.6. With the exception of Meadowbrook Way SE, all evaluated segments have collision rates less than the statewide urban and King County averages.

Table 8.6
ROADWAY SEGMENT COLLISION SUMMARY, 2007-2010

Roadway Segment	Roadway Functional Class	Avg. Annual Collisions	Collision Rate (per MVM)[1]	Statewide Avg. Urban Collision Rate (in MVM)[2]	King County Avg. Collision Rate (in MVM)[2]
SR 202 between Snoqualmie Pkwy & Meadowbrook Wy	Principal Arterial	7.3	1.65	2.05	2.17
Snoqualmie Pkwy between Center Blvd &SR 202	Principal Arterial	7	1.10	2.05	2.17
Snoqualmie Pkwy between Swenson Dr & Center Blvd	Principal Arterial	5.3	1.87	2.05	2.17
Snoqualmie Pkwy between Swenson Dr & I-90	Principal Arterial	7.3	1.68	2.05	2.17
Meadowbrook Wy between SR 202 & North Bend Wy	Principal Arterial	1.0	**2.53**	2.05	2.17

Notes: [1] *MVM = collision rate per million vehicle-miles traveled*
[2] *Average collision rates from Washington State Collision Data Summary, WSDOT, 2009*

Figure 8.4 *Collisions by Location, 2007 – October 2010*



As indicated earlier, about half of reported collisions occurred at intersections. Table 8.7 shows the collision rates for 15 busiest intersections in the city; all intersections have collision rates of less than 0.6 collisions per million entering vehicles (MEV)[3]. While WSDOT does not publish average intersection collision rates, rates in other states are typically between 0.7 and 1.5. The highest intersection collision rates were at the Swenson Drive/Snoqualmie Parkway and Fairway Avenue/Snoqualmie Parkway intersections. At Swenson Drive, half of the collisions involved wildlife. At Fairway, most collisions were noted as involving "two vehicles" by the police department, which likely indicates sideswipes caused by improperly yielding right-of-way to turning vehicles.

Table 8.7
INTERSECTION COLLISION SUMMARY, 2007-2010

Intersection	Average Daily Entering Vehicles	Average Annual Collisions (2007-2010)	Collision Rate (per MEV)[1]
SE 99th St/Snoqualmie Pkwy	15,600	1.33	0.23
SE 96th St/Snoqualmie Pkwy	15,400	1.33	0.24
Jacobia St/Snoqualmie Pkwy	15,200	1.00	0.18
Swenson Dr/Snoqualmie Pkwy	15,000	3.00	0.55
Douglas Ave/Snoqualmie Pkwy	16,000	1.67	0.29
Center Blvd/Snoqualmie Pkwy	10,800	1.67	0.42
Fairway Ave/Snoqualmie Pkwy	9,900	2.00	0.55
Fischer Ave/Snoqualmie Pkwy	8,600	1.33	0.42
SR 202/Snoqualmie Pkwy	12,900	2.33	0.49
SR 202/Mill Pond Rd	9,100	0.67	0.20
SR 202/Tokul Rd	8,900	1.33	0.41
SR 202/Fir St	8,800	0.00	0.00
SR 202/River St	9,900	0.67	0.19
SR 202/Beta St	9,400	0.00	0.00
SR 202/Meadowbrook Wy	12,500	1.67	0.37

D.4 TRUCK ROUTES

A few commercial and industrial centers in the study area generate truck traffic, including the Snoqualmie Valley School District Bus Barn (SVSD) and Glacier Northwest. The SVSD Bus Barn is located at the intersection of King Street and 384th Avenue, and stores about forty full-size buses. The bus traffic has the greatest impact on the AM peak period and has little impact on the PM peak due to school dismissal schedules.

Glacier Northwest operates a gravel mining facility northeast of Snoqualmie, but outside City limits. However, virtually all truck traffic must pass through at least a portion of the City. Trucks heading north and west reach SR 202 via Tokul Road; trucks wanting to reach I-90 must use SR 202 and, depending on their destination, Snoqualmie Parkway. Trucks cannot travel southbound on Mill Pond Road to access Meadowbrook Way, due to weight limits on the one-lane Snoqualmie River Bridge on Meadowbrook Way.

The North Bend Nintendo distribution facility, located outside the City, may also contribute truck traffic to City roads. The facility is located close to I-90 exit 31 in North Bend, though the primary truck route is along a King County Road, North Bend Way to exit 27 near the Snoqualmie Casino.

[3] As opposed to the segment method of measuring the number of collisions per million vehicle miles travelled, intersection collisions are normally measured as the number of annual collisions per million entering vehicles (MEV).

D.5 TRANSIT SYSTEM

King County Metro Transit provides limited transit service to the City as shown on Figure 8.7. The 208 route connects the City with North Bend, Fall City and Issaquah; Metro also helps provide a 90-minute intravalley shuttle service. The off-street bus stop on SR-202 near King St. in Downtown will be relocated during downtown the Phase II–a project.

Bus Shelters

Metro begins considering building a bus shelter once a bus line reaches 25 boardings a day. There usually is a year-long waitlist; the shelter itself costs roughly $28,000 to construct.

- Route 208 provides weekday bus service every 2–2 ½ hours from 6:00 AM to 8:00 PM between North Bend and Issaquah via Snoqualmie Ridge, with Saturday service provided every 2 hours from 8:00 AM to 10:00 PM; no Sunday service is provided. Riders are required to transfer to other destinations such as Bellevue or Seattle.

Due to funding shortfalls, the King County Council approved Metro route cuts for September 2014 that eliminated previous routes 209 & 215 servicing the City; the intravalley shuttle is not subject to cuts until 2019.

D.6 PEDESTRIAN AND BICYCLE FACILITIES

"Every person on a bike means one less car clogging the road."

—U.S. Representative Earl Blumenauer

The City has relatively widespread pedestrian facilities. The residential and commercial areas of Snoqualmie Ridge generally all have sidewalks, separated from the road by planter strips with street trees. Likewise, most of the residential and commercial historic neighborhoods east of 384th Ave/ have sidewalks, planter strips and street trees, along with marked crosswalks on Railroad Ave. supporting crossings to access businesses east of SR 202. Snoqualmie has multiple dedicated local and regional bicycle & pedestrian trails. There is a delineated bicycle lane on part of SE Douglas St.; there are also many off-street bike facilities for recreation and neighborhood connections in Snoqualmie Ridge. The primary paved off-street trails in Snoqualmie are:

- **The Snoqualmie Parkway Trail** parallels Snoqualmie Parkway from the City boundary at 96th Street to Railroad Ave., providing east-west access from Snoqualmie Ridge to downtown.
- **The Centennial Trail** parallels SR 202 from the Snoqualmie Parkway intersection to Fir Street downtown, linking to the Snoqualmie Parkway Trail and providing cyclists an alternative to the two-lane SR-202. The 2014 Phase II downtown improvement project will extend this trail further south to SE River St.

Snoqualmie is also served by two regional trails:

- **The Snoqualmie Valley Trail** is a regional facility, and the longest trail in King County. It is soft surface and travels 31 miles from Duvall to south of North Bend. This trail passes through the western part of the City, taking riders on an interim road link connector along Tokul Rd SE, coming to a 'T' near 60th Street where cyclists generally follow Tokul Road SE, SE Mill Pond Road, and Reinig Road before crossing the Snoqualmie River on a dedicated bridge back to the trail. This is the only roadway segment on the trail.
- **The Preston-Snoqualmie Trail** is a 7 mile paved regional trail that runs east from Preston to an overlook near Snoqualmie Falls, with soft-surface trail access from Eagle Lake Dr. Built on old railroad right of way, a missing trestle has prevented completion of the planned connection to Snoqualmie Falls.

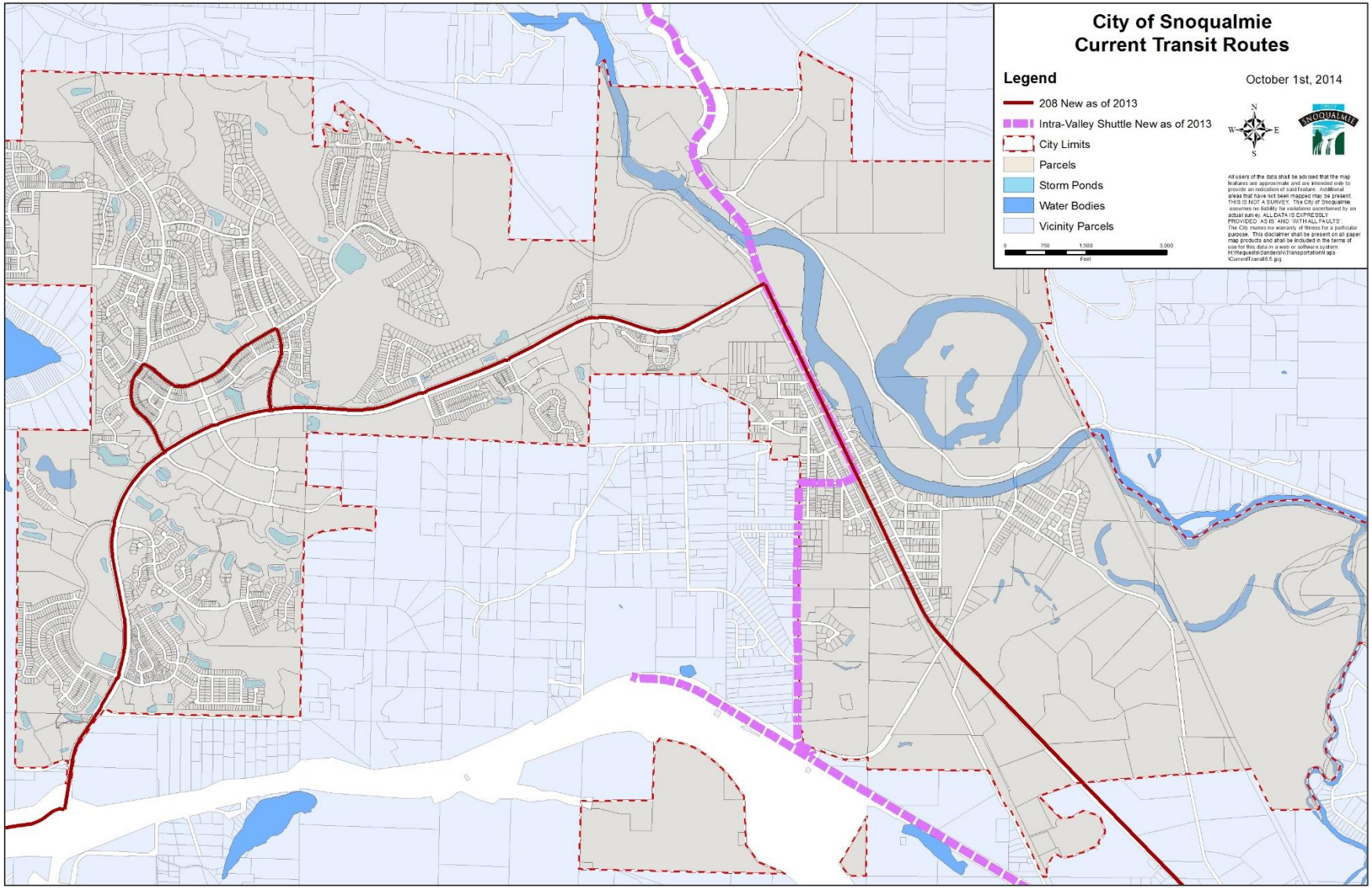
<u>Recent Improvement Projects</u>

In 2010, Snoqualmie completed Phase I of the Town Center Infrastructure Improvements project downtown, improving facilities on part of Falls Ave., part of SE River and the east side of Railroad Ave. with wider sidewalks, street trees, traffic calming features and highway and pedestrian streetlights. Phase II-a, begun in 2014, will provide some of the same improvements along Railroad Avenue between Fir and Newtown Streets in 2014.

In the summer of 2013, Snoqualmie either added, or replaced and widened, sidewalks with planter strips and traffic calming to portions of Cedar Street; Falls Ave SE between SE Beta St. and SE 90th ST; along SE Epsilon St.; and along SE Beta St. In addition, the City installed sharrows (see Figure 8.14) for a Bicycle Boulevard along Falls Ave St. south of Beta to improve bicycle safety, especially for through-connections for students attending schools in downtown.

As part of meeting the 2005 GMA amendments, requiring a Comprehensive Plan pedestrian and bicycle component, the City inventoried its bicycle and pedestrian facilities in the 2012 Bicycle and Pedestrian Recommendations Report, and used multimodal assessment (MMLOS) to highlight additional improvements needed in its Capital Facilities Projects list. For more information on this topic, see Section E. *Future Transportation System*.

Figure 8.5 *Map of 2014 Transit Routes*



E. FUTURE TRANSPORTATION SYSTEM

The Growth Management Act (GMA) requires that the City review how future land use growth could impact the City's transportation network. This section reviews anticipated land use changes; impact assessment results; and needed transportation system improvements including downtown multimodal needs. Based on this information, future intersection traffic LOS is evaluated along with potential impacts to other transportation modes. Since the GMA requires that actions be taken to address any facilities that do not meet adopted LOS standards, this section also identifies transportation projects and their estimated project costs.

2032 land use forecasts were prepared by the City of Snoqualmie, estimating that approximately 2,000 households and 3,400 jobs will be added to the City from such areas as the Snoqualmie Hills and Mill Planning Areas, as well as Snoqualmie Ridge Phase II and the Salish Expansion project. The new LOS results are shown in Table 8.8 and Figure 8.8; **t**he table notes where intersection changes are planned as compared to existing conditions. For more information on assumptions and the transportation model, see Appendix 8-III *Future Transportation System, Methodology*.

E.1 ROADWAY CHANGES & THE UGA

To determine the likely 2032 roadway network, the City's 2012-2018 Capital Improvement Plan (CIP) and WSDOT documents were reviewed, identifying numerous intersection improvements, including:

Future transportation projects will explore additional needs in listed projects, including environmentally-friendly designs, as well as American with Disabilities Act (ADA), pedestrian and bicycle improvements.

- New roundabout at Tokul Rd and SR 202 (including Mill Pond Road);
- New roundabouts at 384th Ave SE, Meadowbrook Way and North Bend Way;
- New roundabout or traffic signal at Snoqualmie Parkway and 99th Street;
- New traffic signals at Snoqualmie Parkway intersections with Better Way, and Fisher Ave;
- Additional left turn lanes at the Meadowbrook Way and SR 202 intersection; and
- Future WSDOT-planned roundabouts and flyover ramps at SR 18 and I-90.

To plan for future growth within the unincorporated portion of the City's UGA, additional southern UGA connections were evaluated, specifically a SE Douglas Street extension from its Snoqualmie Ridge Business Park terminus to downtown neighborhoods, providing an additional main east-west linkage beyond the Snoqualmie Parkway, as well as additional connection with the Parkway at SE Fisher Avenue. Several alternatives for additional UGA roadway alignments were evaluated, shown in Figure 8.6. These were analyzed under 2032 conditions in the Snoqualmie travel demand model, which indicated that the southern alignment option would attract more vehicle traffic than the northern option. This conclusion is further bolstered by the potential to extend 372nd Ave SE to tie in to the new east-west roadway and provide a third southerly exit. The extension of 372nd Ave SE, coupled with an extension of SE Newton Street from Doone Ave SE to SE 84th St provides a more direct link between downtown Snoqualmie and new UGA developments to and from I-90 (via North Bend Way).

Figure 8.7 provides forecasted 2032 daily traffic volumes on key existing and planned roadways in Snoqualmie. These new roads are estimated to cost $20 million; a majority of them would likely be funded fully by private developers approaching the City with UGA development proposals, or partially funded as mitigation impacts on existing roadways.

E.2 RECOMMENDED INTERSECTION IMPROVEMENTS

Based on projected traffic growth, there are several existing intersection locations that degrade to a LOS below City standards. This section reviews suggested intersection improvements to improve LOS; figure 8.8 shows LOS without recommended improvements, and Figure 8.9 shows the 2032 LOS with recommended improvements.

Within the City

- **SR202/River St and Newton St** – Due to traffic growth on SR 202 and traffic at SE Newton Street, the delay on the side-street approaches are expected to operate at LOS E at River Street and LOS F at Newton Street. Should the Douglas Street extension move forward and have a terminus at SE Newton Street, volumes here will meet a signal warrant. Addition of a SE Newton Street traffic signal may require minor SR202 widening to accommodate left-turn pockets, and is anticipated to cost approximately $500,000. This traffic signal may

convey benefit to vehicles at the River Street intersection by adding gaps in traffic, but will also provide an alternative if the unsignalized River Street approaches have high delays. With a traffic signal in place at SR 202 and Newton Street, both the River and Newton Street intersections with SR 202 would operate at LOS B.

- **Intersection of SR 18 and Westbound On-Ramp.** SR 18 under the I-90 bridge and Snoqualmie Parkway should be widened to five lanes with an additional southbound right turn lane onto I-90; the existing right-hand lane should also allow right turns as well as through movements. The two right turn movements on southbound Snoqualmie Parkway will require the westbound I-90 ramp to be widened to two lanes. The southbound approach would operate with the following 3-lane configuration: a right turn lane, a right turn and through lane and a through lane. Although the figures do not show the peak AM volumes, this intersection is currently operating at its capacity in the morning, with long queues of northbound vehicles desiring to turn left (west) onto I-90 extending south on SR 18. The recommended changes will improve the level of service in the AM and PM peak hours. The bridge columns currently restrict widening the SR 18 roadway beyond five lanes. AM peak hour analysis was conducted at this intersection. While the proposed southbound Snoqualmie Parkway widening would generally improve conditions, the intersection would still operate at LOS F in 2030 conditions due to additional northbound and westbound traffic. A configuration that would improve LOS to D include the following:
    - Southbound: One right-turn lane, one shared through-right-turn lane, one through lane
    - Westbound: One left-turn lane, one shared through-left-turn lane, one right turn lane
    - Northbound: One left-turn lane, one shared through-left-turn lane, one through lane
        - This configuration would require a variable lane assignment sign for northbound traffic and AM peak hour split-phasing to implement; however, it would not require more than five lanes under I-90.

  Side-street impacts have been noted from the intersection delay and morning queues desiring to turn left (west) onto I-90 from the parkway. Although some alternatives have been explored, including installation of raised concrete curbs to reduce last-minute merger from through-lanes into the right-turn lanes, much of the area is under Washington State Department of Transportation (WS DOT) jurisdiction and options for modifications are limited. An alternative currently being proposed is increased signage to not block intersections during signal changes, and coordinating with police for increased enforcement of violators. Concentrated programs to support transit and carpooling alternatives may also help to reduce delays.

  City staff from multiple departments have met with WS DOT representatives on intersection alternatives, which include conversion of the current weigh station and overpass modifications to speed freeway entry. Either alternative will take many years of coordination, and substantial funding to occur, so nearer-term alternatives should continue to be explored. Staff also brought up concerns with WS DOT representatives of the westbound exit off I-90 to this intersection, especially during the PM peak hour. WS DOT representatives noted they would explore whether the shoulder and pavement conditions could be re-striped to allow for an addition right-turn lane at this exit.

Outside the City

GMA requires intergovernmental coordination in transportation planning, including assessing impacts of land use assumptions and transportation plans on adjacent jurisdictions transportation systems. The City continues to coordinate with North Bend, King County, Metro, and WSDOT to ensure plan and project consistency; below are projects outside municipal boundaries requiring coordination to address incoming and outgoing traffic impacts.

- **I-90 EB Ramps/Snoqualmie Parkway** – Due to additional Snoqualmie Ridge II jobs and housing growth, this intersection is expected to operate at LOS E in 2032. In addition to optimizing signal lengths and offsets, a minor improvement of adding a northbound through lane on the SR 18 approach would bring the intersection to LOS D. North of the intersection there are already two receiving lanes; this modification would require re-striping and possible minor roadway widening/ paving to preserve shoulders, costing about $125,000. Intersection actions would have to be coordinated with WSDOT; note that WSDOT's proposed (but unfunded) interchange improvements would also provide acceptable location operations.

  (Continued on Page 8-23)

Figure 8.6 *Conceptual Planned Routes, Snoqualmie Hills UGA*

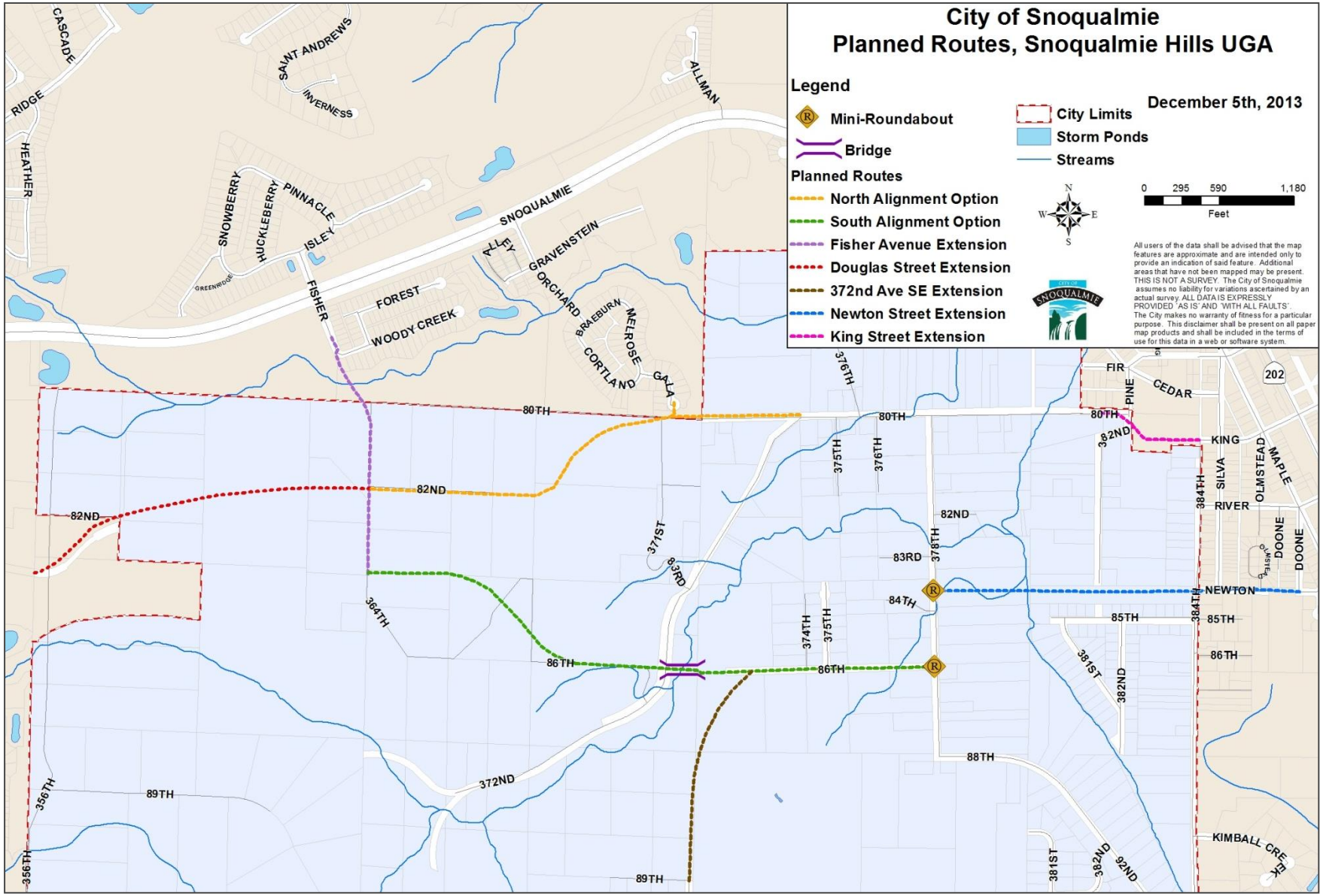


Figure 8.7 *Future ADT, 2032*

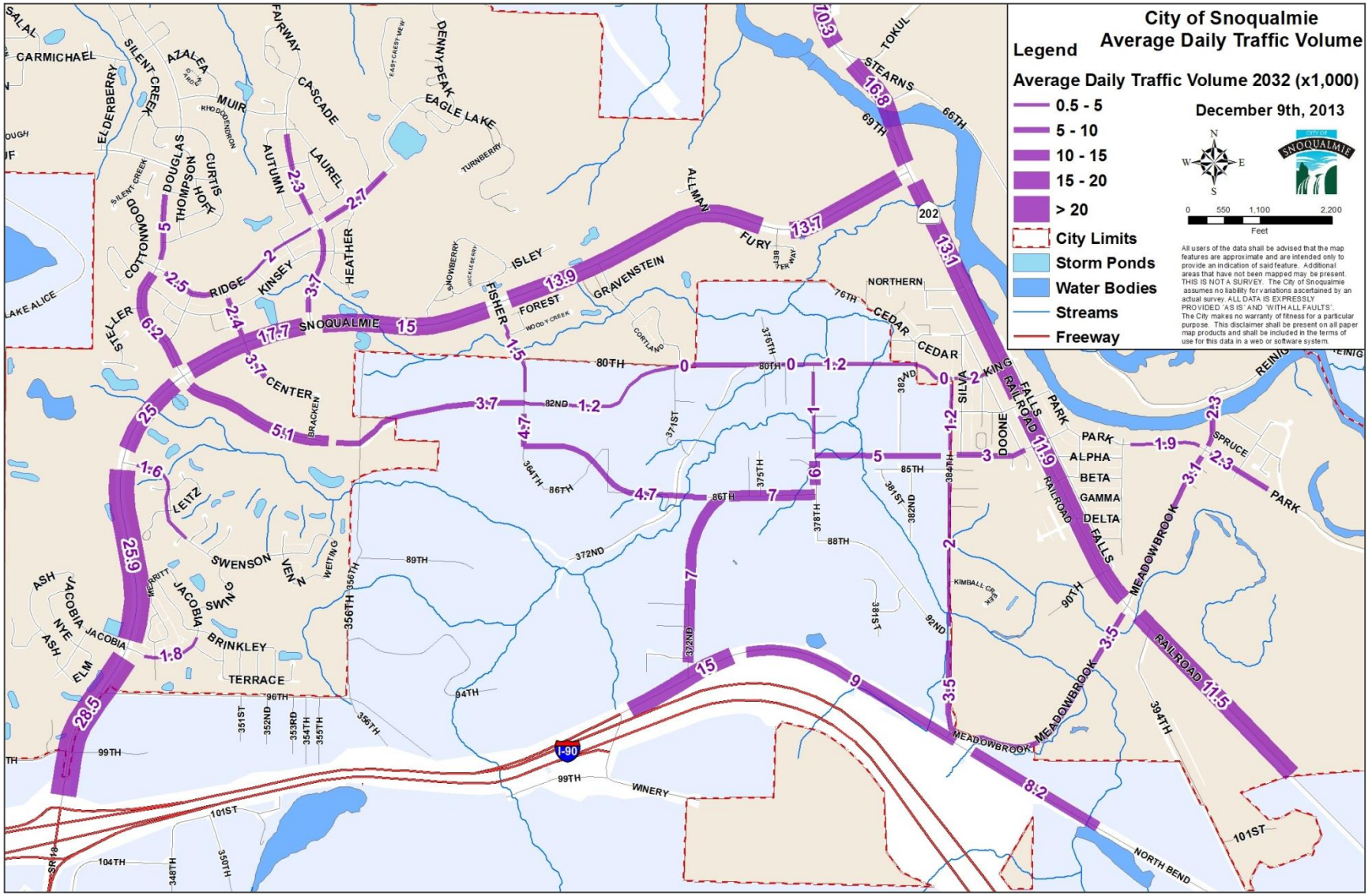


Figure 8.8 *Projected 2032 Intersection Level of Service*

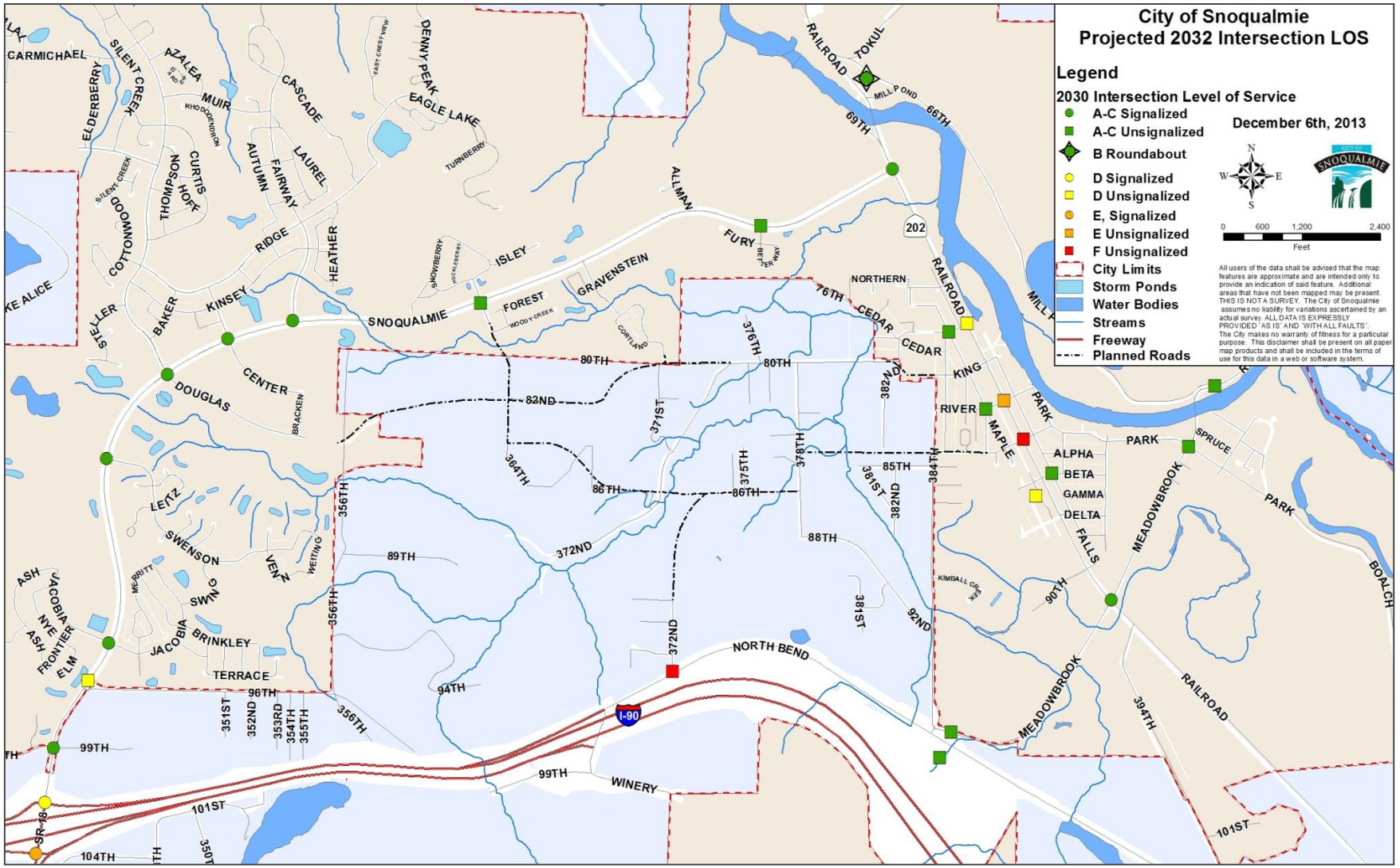


Figure 8.9 *Mitigated 2032 Intersection Level of Service*

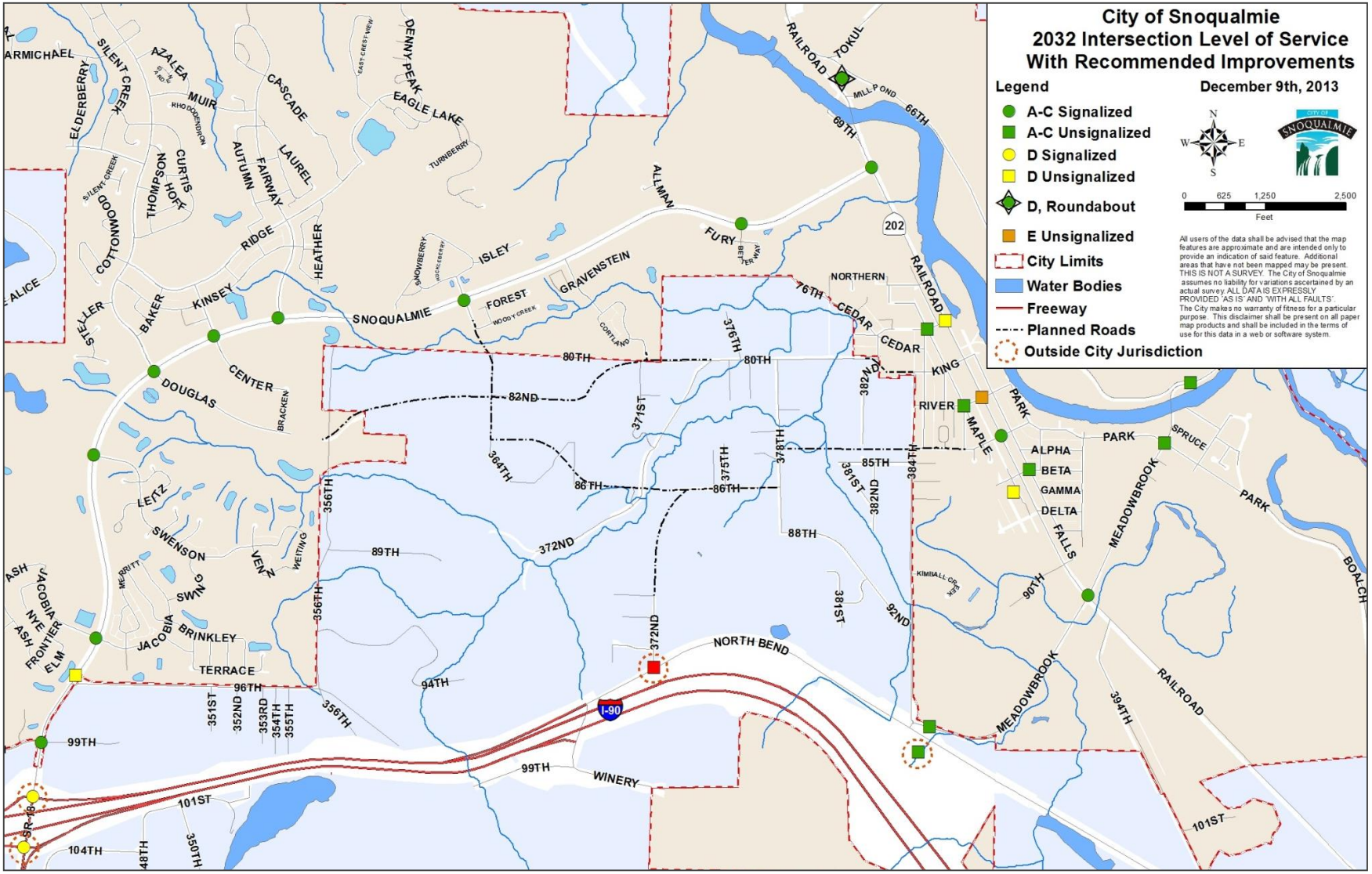


Table 8.8
FUTURE INTERSECTION LEVEL OF SERVICE, 2032

Intersection	Traffic Control	PM Peak Hour Delay (in seconds)	Level of Service
I-90 EB Ramps/Snoqualmie Pkwy **[a]**	Signal	56	E
I-90 WB Ramps/Snoqualmie Pkwy	Signal	44	D
SE 99th St/Snoqualmie Pkwy **[b]**	Signal or Roundabout	<10	A
SE 96th St/Snoqualmie Pkwy	Stop Control	29	D
Jacobia St/Snoqualmie Pkwy	Signal	13	B
Swenson Dr/Snoqualmie Pkwy	Signal	13	B
Douglas Ave/Snoqualmie Pkwy	Signal	19	B
Center Blvd/Snoqualmie Pkwy	Signal	10	A
Fairway Ave/Snoqualmie Pkwy	Signal	<10	A
Fisher Ave/Snoqualmie Pkwy **[b]**	Signal	11	B
Better Wy/Snoqualmie Pkwy **[b]**	Signal	<10	A
SR 202/Snoqualmie Pkwy	Signal	26	C
SR 202/Mill Pond Rd **[c]**	Roundabout	11	B
SR 202/Tokul Rd **[c]**	Roundabout	11	B
SR 202/Fir St	Stop Control	27	D
Fir St/Maple St	Stop Control	<10	A
SR 202/River St	Stop Control	44	E
River St/Maple St	Stop Control	<10	A
Beta St/Falls Ave	Stop Control	10	A
SR 202/Beta St	Stop Control	32	D
SR 202/Meadowbrook Wy **[d]**	Signal	14	B
Meadowbrook Wy/Park St	Stop Control	<10	A
Meadowbrook Wy/Mill Pond Rd	Stop Control	10	B
Meadowbrook Wy/384th Ave **[e]**	Stop Control	<10	A
Meadowbrook Wy/ SE North Bend Wy **[e]**	Stop Control	16	C
SR 202/SE Newton St **[f]**	Stop Control	150+	F
372nd Ave SE/SE North Bend Wy	Stop Control	150+	F

[a] Does not include potential intersection reconfigurations
[b] New traffic signal
[c] New roundabout, analyzed with HCM 2010 methodology and SIDRA software.
[d] There is a proposal to add turning lanes that will further decrease reported delay.
[e] A roundabout at these intersections is included in the 2012-2017 TIP. However, the project is outside the City limits, no funding has been dedicated, and no design details are currently available. If implemented, it is expected to operate at LOS A, Note that this roundabout would combine the intersections of Meadowbrook Way, 384th Ave, and North Bend Way.
[f] This intersection would operate at LOS A with less than 10 seconds of average delay with a traffic signal. See Figure 8.9.

Analysis by Fehr & Peers, 2012

(Continued from page 8-17)

- **372nd Ave SE/SE North Bend Way** – With a 372nd Ave. SE extension to new UGA roadways, traffic on 372nd Ave. SE would greatly increase by 2032. Traffic volumes at this intersection are likely to meet a signal warrant and would require either a signal or roundabout to function with acceptable delay levels. As this location is outside of the City of Snoqualmie, the City should work with King County and the Snoqualmie Tribe to identify a location for this location.

E.3 DOWNTOWN MULTIMODAL LOS RECOMMENDATIONS

Continued housing and employment growth shows increased travel demands by many modes – whether by car, truck, bike or by foot. If the City is to support all travel modes well, it is necessary to assess which pedestrian and bicycle gaps to address first.

The City has developed in stages, preserving the historic downtown in the eastern portion of Snoqualmie while adding new development to the west. Newer neighborhoods were constructed with off-street trail networks and sidewalks fronting all developed areas, however historic sections of the City do not serve all travel modes as adequately. Some projects such as the Phase I Town Center and the Cedar/Falls project improved downtown pedestrian facilities. However, there are no dedicated bicycle facilities and many streets either lack sidewalks or the sidewalk width is below standard. In contrast, downtown does have a well-connected street grid with several low traffic volume roads, which means that additional amenities could build on existing conditions and likely attract higher foot traffic by residents and visitors.

Addressing multiple travel modes supports the Comprehensive Plan as a whole, and is also a key element of the Snoqualmie Downtown Master Plan, advancing multiple goals from increased safety for students attending downtown schools, to extending the retail stay length of tourists. MMLOS assessments reviewed downtown transportation facilities in the area identified in figures 8.10 through 8.15, and recommended improvements to facilitate the construction of a cohesive multimodal transportation network.

Pedestrian LOS Standards

For pedestrian users, the MMLOS assessment weighed sidewalk width and buffer appropriateness, crosswalk placement, and crosswalk design to identify deficiencies. A width of 6 feet is generally recommended for residential area sidewalks, allowing two people to comfortably stroll side-by-side. The American Association of State Highway and Transportation Officials (AASHTO) notes that sidewalk widths may vary from 4 to 8 feet in residential areas, though widths are recommended to be two feet wider where directly adjacent to the curb (i.e., without a planting strip or buffer). This extra space provides space for roadside hardware; snow storage; and space for the proximity of moving traffic, such as the opening of parked car doors, and parked car bumper overhangs.

The AASHTO guidebook notes that a minimum sidewalk width of 8 feet or greater may be needed in commercial or educational areas.[4] In commercial environments like downtown Snoqualmie retail streets, wider sidewalks of about 10 feet are needed due to street furniture, bus stops or elements that effectively reduce a pedestrian's sidewalk "clear area." Current sidewalk locations and widths are identified in Figure 8.10.

What is MMLOS?

Multimodal Level of Service (MMLOS) is a way to assess how well a streetscape serves the needs of all of its users, such as autos, bicycles, and those walking to school, work or retail establishments. This downtown MMLOS looks at bicyclists and pedestrians, as auto LOS has been addressed earlier. A MMLOS assessment measures user preferences and feelings of safety by weighing attributes such as adjacent traffic speeds, road separation (planter strips), direction signs and directness of travel routes (connectivity). Routes are then given letter grades following the familiar auto/road LOS grade system, helping inform improvement priorities based on local criteria.

Why Not the Whole City?

Given limited resources, a whole-city review was not possible. However, design guidelines in newer City areas were progressive, resulting in extensive facilities for non-auto travel. Improvements in these areas are guided by the 2012 Snoqualmie Bicycle & Pedestrian Recommendations Report, and focus on targeted cul-de-sac connections.

[4] American Association of State Highway and Transportation Officials (AASHTO). A Policy on Geometric Design of Highways and Streets. 5th ed. Washington D.C.: AASHTO, 2004.

Overall, the MMLOS method accounts for vehicle speed, traffic volume on the roadway being crossed, and crosswalk frequency. The pedestrian LOS evaluation criteria are shown in Tables 8.9 and 8.10, which are similar to Snoqualmie Ridge II requirements already established in the City. Principal Commercial streets have slightly different criteria; the 2010 Downtown Master Plan recommends that development on Railroad Ave SE prioritize pedestrian-scale streetscape and design, to maintain and enhance its historic Main Street function. Key elements for such street improvements are wide sidewalks, pedestrian crossings and pedestrian-scaled street lights. As such, the commercial stretch of Railroad Ave SE between SE King St. and SE River St. on the east side was determined to require greater sidewalk widths and more closely-spaced crossings. Crosswalks should also be provided in one block intervals (approximately every 600 feet) along Railroad Avenue SE where pedestrians are present. To reach the highest LOS level on Railroad Ave., crosswalks should incorporate elements such as curb extensions, and pedestrian flashers or signals.[5] A high-intensity activated crosswalk (HAWK) signal is planned at the intersection of River Street and Railroad Avenue SE in 2014; the MMLOS assessment assumes that this signal has been added in this segment. Based on these criteria, Figure 8.11 identifies the current Snoqualmie street pedestrian LOS, with segments lacking sidewalk shown in dark grey.

Pedestrian Recommendations

To meet crosswalk requirements, the City should retain the planned addition of a high visibility midblock crosswalk on Railroad Ave SE between SE King Street and SE River Street in planned Phase II downtown improvements. Also, as existing sidewalk deficiencies are widespread, redressing sidewalk gaps with connections or parallel off-street paths where they are most needed is recommended. These first-priority infill projects are shown in Figure 8.14, and other sidewalk additions, should be built to LOS green standard. They represent approximately 6,500 feet of new sidewalk or mixed-use path, with a cost estimate totaling $3.1 million.

Traffic, Trees & Planter Strips

In a downtown environment, sidewalk buffers with street trees benefit both motorists and pedestrians. As part of the typical pedestrian perception of travel, the 2010 Highway Capacity Manual (HCM) notes that street trees and vertical elements provide a barrier from the roadway, increasing a walker's sense of safety. The MMLOS score accounts for this when trees are 3' tall, and spaced 20' or less on average.

For motorists, while clear zones can be helpful for high- speed roads, they have an ambiguous relationship with safety. Research shows that drivers continuously "read" the potential hazards of urban roads and adjust their behavior accordingly.[1] Wide lanes and clear zones can reduce a driver's perception of risk, providing an increased but false sense of security that in turn encourages more risky driving behavior. In an urban context, avoiding wide lanes and adding features such as planter strips with street trees encourages appropriate driving speeds and improves motorist and pedestrian safety.

Table 8.9
PEDESTRIAN LOS, SIDEWALK CLASSIFICATION

LOS	Principal Commercial Streets	Other Downtown Streets
	8-foot minimum sidewalk with 8-foot buffer	6-foot minimum sidewalk with 5-foot buffer
	5-foot minimum sidewalk and 5-foot buffer	5-foot minimum sidewalk, or adjacent shared use trail 10-feet or wider
	Less than 5-foot sidewalk & less than 5-foot buffer	Less than 5-foot sidewalk

[5] These elements are further described in: Zegeer, Charles. Safety Effects of Marked versus Unmarked Crosswalks at Uncontrolled Locations: Final Report and Recommended Guidelines, FHWA-HRT-04-100. Washington D.C.: Federal Highway Administration, 2005

Figure 8.10 Existing Downtown Sidewalk Dimensions

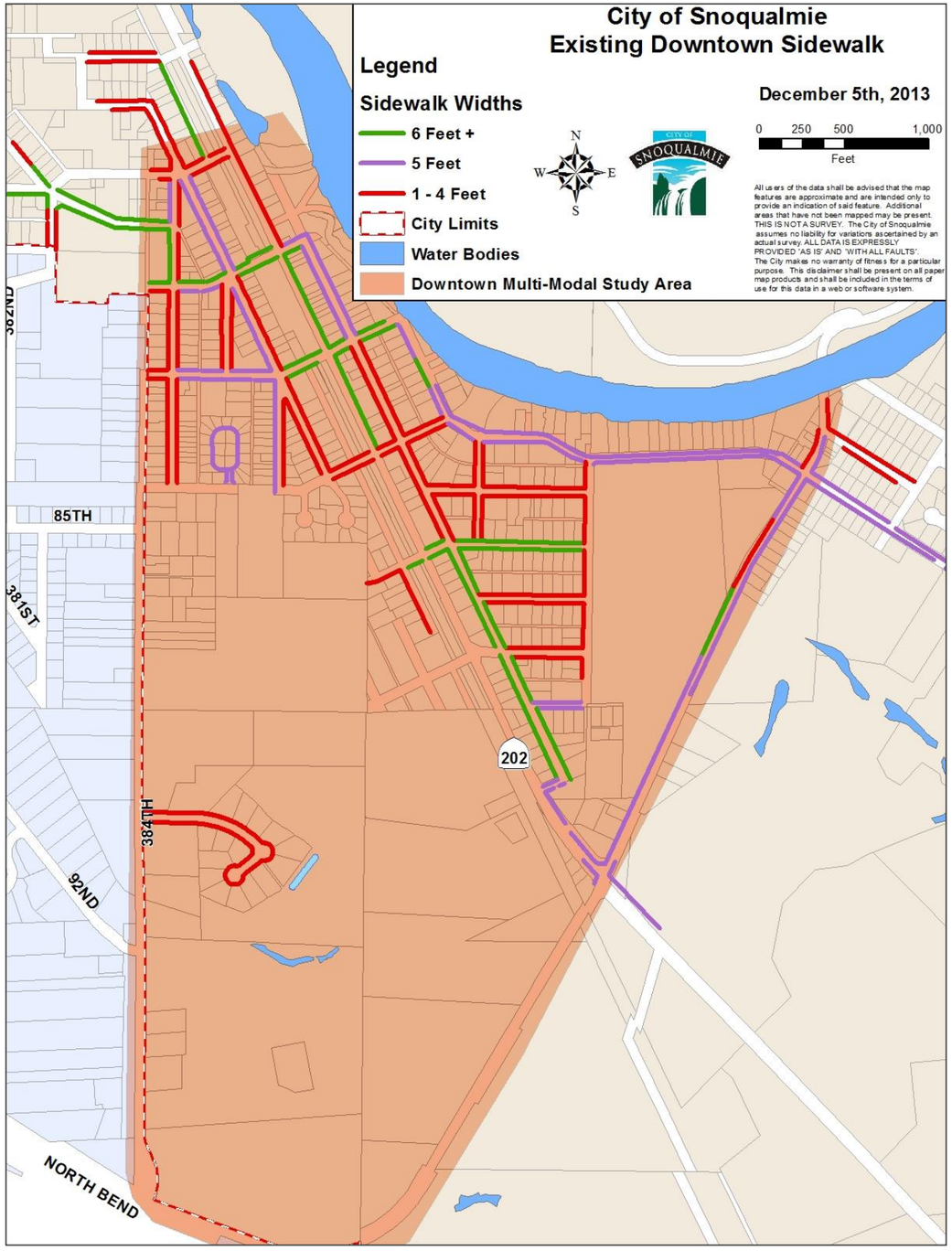
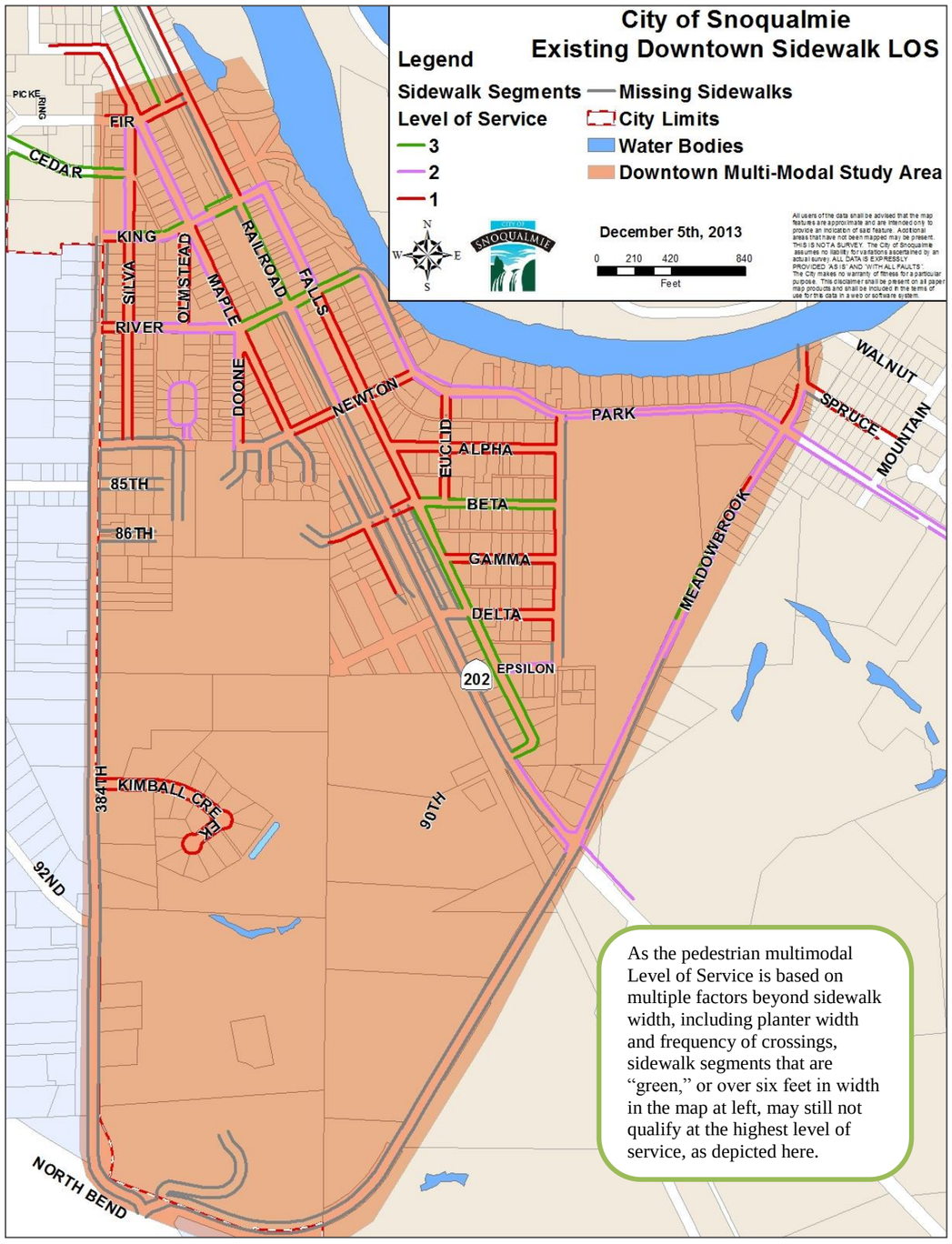


Figure 8.11 Existing Sidewalk LOS



As the pedestrian multimodal Level of Service is based on multiple factors beyond sidewalk width, including planter width and frequency of crossings, sidewalk segments that are "green," or over six feet in width in the map at left, may still not qualify at the highest level of service, as depicted here.

Table 8.10
PEDESTRIAN LOS, CROSSING CLASSIFICATION

LOS	Principal Commercial Streets	Other Downtown Collector or Arterial Streets [a]
	Enhanced Crossing every 300 feet	Marked or Enhanced Crossing every 600 feet [b]
	Marked Crosswalk every 300 feet	Marked Crosswalk every 600 feet
	No Crosswalks within 300 feet	No Crosswalks within 600 feet

[a] There is no requirement for marked crosswalks on residential streets.
[b] Enhanced crossing on Railroad Ave SE only

Bicycle Facilities

Downtown Snoqualmie has a well-connected street grid, but little dedicated or signed bicycle infrastructure. Low volume, but well-connected, street grids provide an ideal situation to support bicycle boulevard additions with minimal cost. Based on the existing conditions, a Downtown bicycle network composed of bicycle boulevards and off-street trails, supported by bicycle parking when warranted, match the area grid of relatively low-volume streets and nearby trails.

The key elements of bicycle boulevards in attracting riders are:

- Slow speed and low volume of motorists
- Connections to other bicycle facilities or destinations
- Safe intersection treatments at arterials or collectors
- Limited number of cyclist stops
- Clear signage for motorists and cyclists

> *"I thought of that while riding my bicycle."*
>
> *— Albert Einstein, on the Theory of Relativity.*

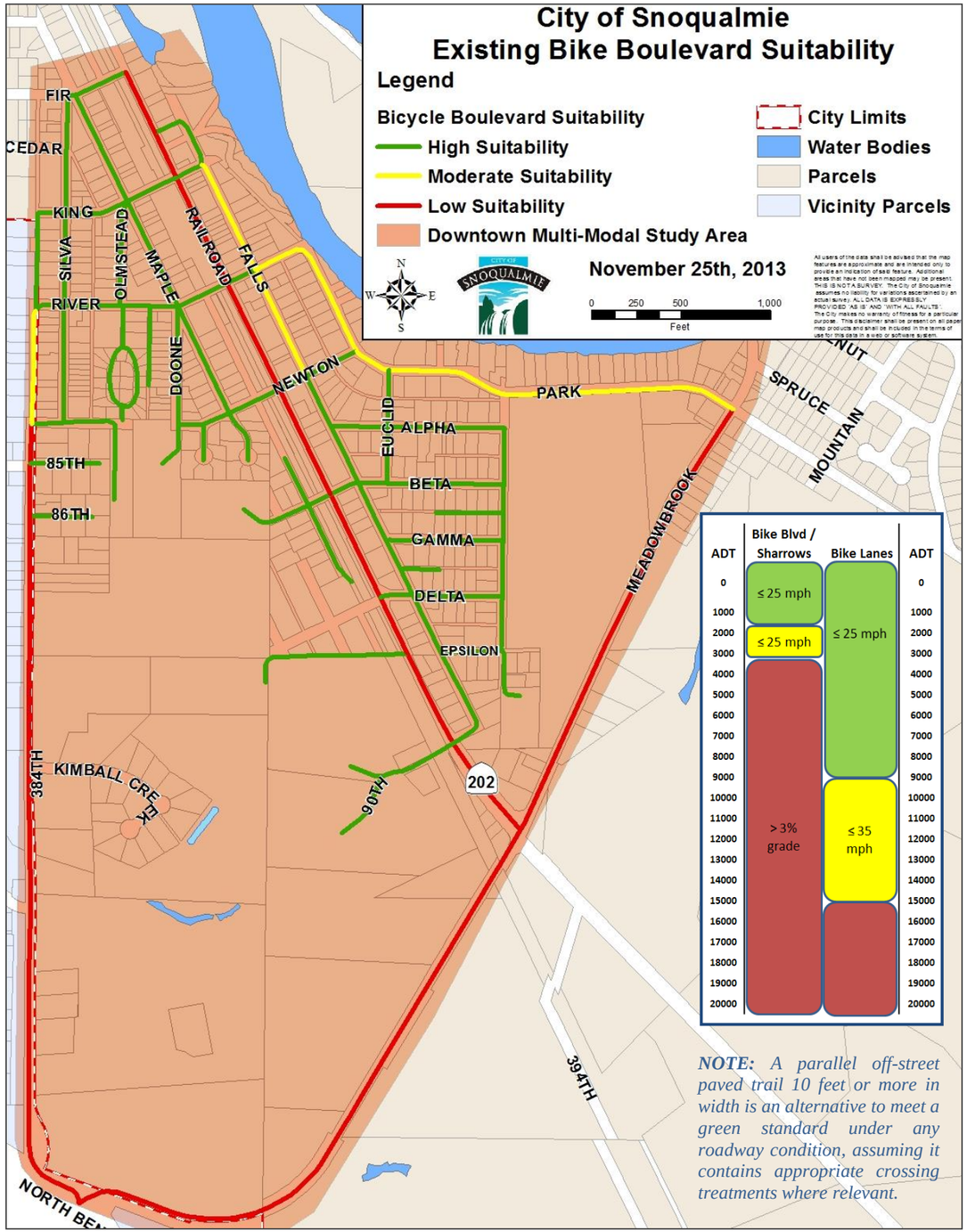
The LOS criteria in Table 8.11 are common bicycle LOS factors that will allow the City to select and evaluate bicycle boulevard corridors to and through downtown Snoqualmie. In addition to these requirements, bicycle parking should be provided at least on every block where there is a key destination along the bikeway. Based on these guidelines, Figure 8.12 shows the volume-based suitability for bicycle boulevards in downtown Snoqualmie. Crossing and stop frequencies will ultimately be a result of final design.

Due to the installation of the HAWK signal on River Street in 2014, a bicycle boulevard following the route indicated in Figure 8.14 would be advisable, as the alignment provides an east-west route through downtown and connects to the existing shared use path in northern downtown. To the east, the bicycle boulevard could be further expanded to tie into the Snoqualmie Valley Trail when warranted. Costs for signage and striping are estimated at approximately $35,000.

Table 8.11
BICYCLE BOULEVARD SUITABILITY CONDITIONS

LOS	Speed and Volume	Unsignalized Intersections	Stop Frequency
	ADT < 1,500, Speed Limit 25mph or less	Adequate crossing of arterial or collectors along bikeway	< One stop per 1/4 mile
	1,500 > ADT > 3,000, Speed Limit 25mph or less	Marked, but insufficient crossing of arterial or collector along bikeway	Stops space at 1/8 to 1/4 mile
	ADT > 3,000, Speed Limit > 25mph	No marked/controlled crossings of arterial or collector along bikeway	> One stop per 1/8 mile

Figure 8.12 Existing Bike Boulevard Suitability



NOTE: *A parallel off-street paved trail 10 feet or more in width is an alternative to meet a green standard under any roadway condition, assuming it contains appropriate crossing treatments where relevant.*

Figure 8.13 *Recommendations: Priority Sidewalk Improvements*

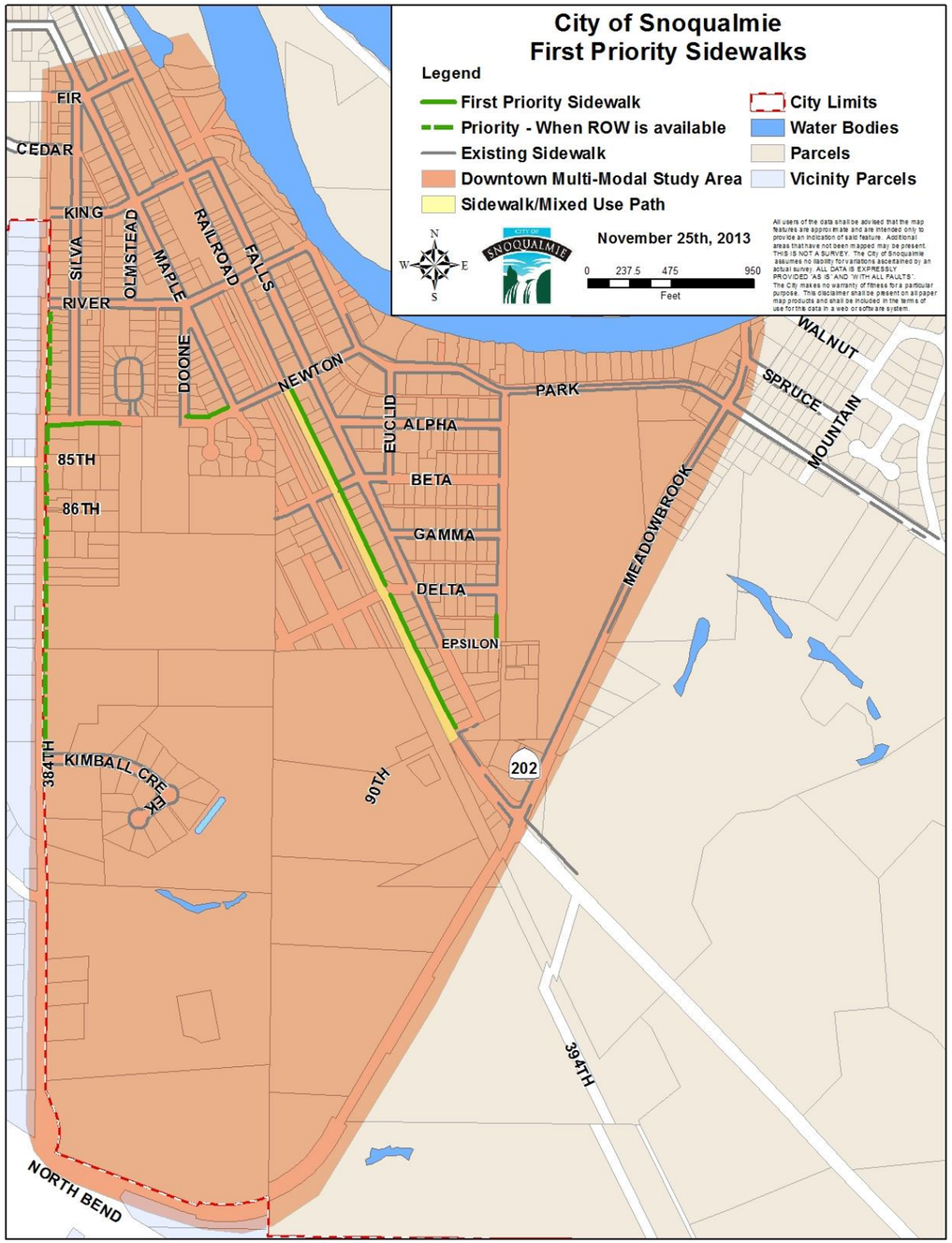
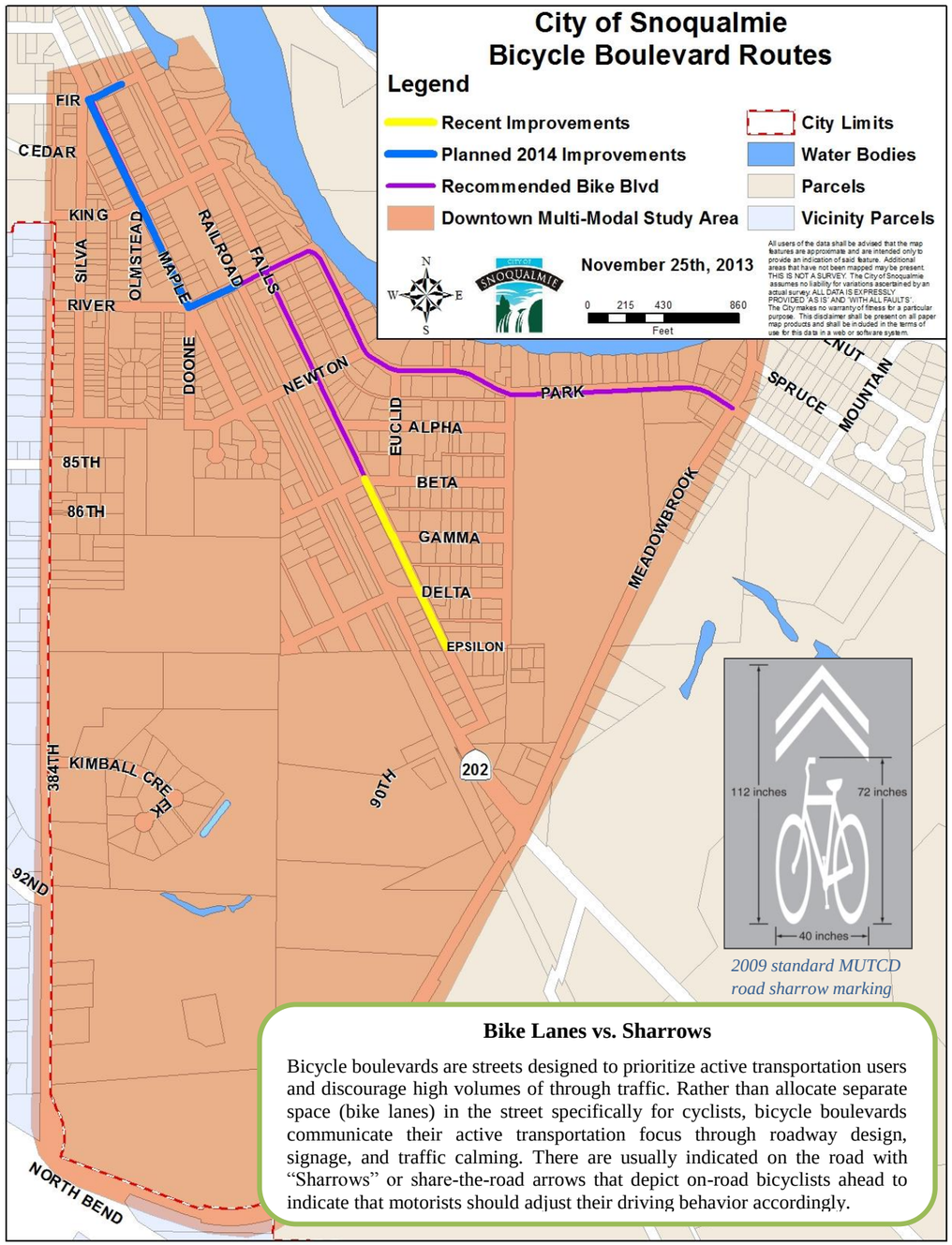


Figure 8.14 *Recommended Bicycle Boulevard Routes*



2009 standard MUTCD road sharrow marking

Bike Lanes vs. Sharrows

Bicycle boulevards are streets designed to prioritize active transportation users and discourage high volumes of through traffic. Rather than allocate separate space (bike lanes) in the street specifically for cyclists, bicycle boulevards communicate their active transportation focus through roadway design, signage, and traffic calming. There are usually indicated on the road with "Sharrows" or share-the-road arrows that depict on-road bicyclists ahead to indicate that motorists should adjust their driving behavior accordingly.

F. FINANCIAL PLANNING

The Growth Management Act (GMA) requires that Transportation Elements contain a multiyear financing plan, showing the City's ability to fund existing and future transportation system improvements. The financing program should identify anticipated project costs and relate them to existing and future funding sources, such as new local taxes, impact fees, state or federal gas tax monies or grants. The plan must also be consistent and concurrent:

Consistency: Identifying necessary transportation improvements and their associated costs to accommodate proposed future land uses provides consistency between future development and the transportation facilities needed to support it. This equitably identifies development impacts as they occur, helping developers understand transportation system impacts and their accompanying costs.

Concurrency: GMA requires that improvements needed to meet adopted level of service standards be constructed within six years of a development. Phasing development can allow some growth to be accommodated prior to full improvement funding and construction.

Impact Fees

Impact fees are local government assessments on a new development that attempt to recover the incurred cost to provide new public facilities needed to serve that development. These fees may only be used to fund facilities directly associated with the development, such as roads, parks, schools and (as of 2010) fire protection facilities. The fees may also be used to pay for a public facilities proportionate cost share, though they cannot be used to fix existing facility deficiencies.

To date, the City has used SEPA to mitigate development impacts, which has sufficed for larger development proposals. However, for future projects with smaller land area and development scopes, Impact Fees may better redress the incremental impacts to the City transportation system.

Table 8.16 shows major City transportation improvements anticipated in the next twenty years, with projected near-, medium- and long-term timelines, and potential funding sources. This is a concentrated listing of major improvements, differing from the adopted six-year Capital Improvement Plan CIP which identifies all of the six-year capital projects (including transportation), as well as listing smaller-scale improvements such as local street maintenance projects. The six-year CIP is a capital programming tool that identifies where the City expects to spend its transportation revenues in the near-term, and is shown in Element 2. Implementation, *Section D. Capital Improvement Program.*

F.1 OVERVIEW OF COSTS AND REVENUES

A key GMA planning requirement is the concept of fiscal restraint in transportation planning. A fiscally constrained Transportation Element must first consider operation and maintenance of existing facilities, and then incorporate capital improvements. To develop a fiscally constrained plan, the City inventoried revenues and costs to identify funds that will likely be available for capital construction and operations.

The City Transportation Element contains various projects that will cost the city and agency partners between $108 and $130 million over 20 years. Table 8.12 summarizes the costs of the major transportation improvements. The Transportation Element includes new multimodal capacity to facilitate anticipated future growth; regional projects that will generally be led and funded by other agencies, but that benefit Snoqualmie; and transportation system maintenance projects to ensure the network is kept in good condition. Excluding major regional projects, the City-led projects could cost approximately $78-86 million over the next 20 years.

The City of Snoqualmie currently funds transportation improvements, operations, and maintenance through various revenue sources, including local taxes, fees, as well as state and federal grants. In addition to City programs, WSDOT funds some improvements along SR 202 through Snoqualmie, while King County funds arterial improvements in unincorporated areas adjacent to the City. Revenues available to the City to finance transportation improvements vary each year, depending on development levels, the success of grant applications, and local economic factors. The City can use funds from the following sources for transportation improvements:

- City general funds (sales tax; real estate excise tax; and property tax)
- Distributions from the State gas tax
- Developer contributions and mitigation (fees)
- Grants, both Federal and State sources
- Bond financing

- Local Improvement District financing
- Contributions from local/regional jurisdictions (King County)
- Transportation Benefit District financing

Table 8.13 summarizes the expected transportation funding over the 20 years. This revenue forecast is based on actual transportation revenues for city capital and maintenance projects over the most recent five-year period for which data are available (2009-2013). If the city were able to maintain this level of revenue, the City could afford around $50-55 million in transportation projects over the next 20 years.

The comparison of revenues to costs indicates that the City will need to carefully prioritize its projects, since not all of the transportation needs are likely to be affordable with existing revenue sources during the 20-year period. If this occurs, the City has several options:

- Increase the amount of revenue from existing sources including higher permit fees or additional general fund transfers.
- Adopt new sources of revenue such as transportation impact fees, or creation of additional Local Improvement Districts. One strategy, using a Transportation Benefit District, is already being employed by the City and is incorporated in the revenues below.
- Lower the level of service standard or adopt design standards that result in fewer transportation projects needed to meet adopted mobility needs and lower-cost projects.

Table 8.12
TRANSPORATION PROJECT COST ESTIMATES

Type of Project	Estimated Cost (over 20 years)
City Maintenance Projects	$16-18 million
City Capital Projects	$62-68 million
Total City Projects	$78-86 million
Regional Projects	$30-44 million

Table 8.13
AVERAGE TRANSPORATION REVENUES

Funding Source	Average Annual Revenue
Taxes and Permits	$241,000
General Fund and Other Fund Transfers	$720,000
Developer Mitigation Fees	$497,000
Grants	$431,000
Bond Proceeds	$1,045,000
Total	$2,625,000
20 Year Total	**$50-55 million**

Two changes not reflected in the above revenue streams are 2014 utility rate increases, and the potential creation of a Street Overlay fund. In June of 2014 the City approved utility rate increases for the first time in six years, while still maintaining some of the lowest rates in the area. Utility rate increases are expected to increase utility revenues by approximately $4.5 million over the next three years, and could generate over $40 million over the next 20 years. While these funds will substantially be spent on operations, wastewater plant and pipe replacement projects, some funding portion will help offset transportation costs when projects include utility replacement.

The Snoqualmie City Council is also discussing creating a "non-utility" street overlay fund to address transportation projects not related to underground utilities; such street overlays and construction are estimated to cost approximately $3,250,000 over the next six years. The current proposal is to create a new reserve fund with an initial allocation of $750,000 from general fund reserves. Annually the fund would receive additions of $100,000 from real estate tax proceeds (REET); $155,000 Transportation Benefit District fees starting in 2018; and continuing a 3% utility tax past 2020 of ~$380,000. Such actions would generate $1.4 million by 2018 and up to $4.2 million by 2023. Creation of the Street Overlay Fund is still in discussion and is expected to be presented for Council consideration in 2014.

APPENDIX

Table 8.14

8-I: INVENTORY & CLASSIFICATION OF TRANSPORTATION SYSTEM

Principal Arterials				
Snoqualmie Parkway	from	the south UGA boundary	to	Railroad Avenue SE (SR 202)
Railroad Avenue SE (SR 202)	from	the south City limit	to	the north UGA boundary
Meadowbrook Way SE	from	SE North Bend Way	to	Railroad Avenue SE
Minor Arterials				
Meadowbrook Way SE/ SE Reinig Road	from	Railroad Avenue SE	to	the east UGA boundary;
SE Fairway Avenue	from	SE Ridge Street	to	Snoqualmie Parkway
SE Douglas Avenue	from	SE Ridge Street	to	Snoqualmie Parkway
Collector Arterials				
384th Avenue SE	from	SE River Street	to	Meadowbrook Way SE
SE Beta	from	Schusman Avenue SE	to	Railroad Avenue SE (SR 202)
SE Carmichael Street	from	Douglas Avenue SE	to	SE McCullough Street
SE Center Street	from	Snoqualmie Parkway	to	Bracken Place SE
SE Delta	from	Schusman Ave SE	to	Railroad Avenue SE (SR 202)
Douglas Avenue SE	from	SE Carmichael Street	to	SE Ridge Street
Douglas Avenue SE	from	Snoqualmie Parkway	to	the east City limit
Fairway Avenue SE	from	SE Muir Street	to	SE Ridge Street
Falls Avenue SE	from	SE King Street	to	SE Beta Street
SE Fir Street	from	Railroad Avenue SE	to	Maple Avenue SE
Jacobia Avenue SE	from	Snoqualmie Parkway	to	SE Brinkley Street
Jacobia Avenue SE	from	Snoqualmie Parkway	to	SE Satterlee Street
SE King Street	from	Falls Avenue SE	to	Railroad Avenue SE
Maple Avenue SE	from	Fir Street	to	SE Newton Street
SE McCullough Street	from	Douglas Avenue SE	to	the west UGA limit
SE Muir Street	from	Douglas Avenue SE	to	Fairway Avenue SE
SE Newton Street	from	Railroad Avenue SE	to	SE 384th St.
SE Newton Street	from	Railroad Avenue SE	to	SE Park Street
Park Avenue SE/ SE Park Street/ Boalch Avenue SE	from	SE River Street	to	City limit
SE Ridge Street	from	Douglas Avenue SE	to	Eagle Lake Road
SE River Street	from	384th Avenue SE	to	Park Avenue SE
Schusman Avenue SE	from	SE Park Street	to	SE Epsilon Street
Stearns Road/Mill Pond Road	from	Tokul Avenue SE	to	Meadowbrook Way SE
Swenson Avenue SE	from	Snoqualmie Parkway	to	Venn Avenue SE
Swenson Avenue SE	from	Snoqualmie Parkway	to	SE Satterlee Street
Tokul Road SE	from	Railroad Avenue SE	to	the north UGA limit

8-II: AVERAGE DAILY TRIPS & LOS, METHODOLOGY

PM peak period traffic counts were collected November 2010 at 15 key intersections, with City consultants Fehr & Peers adjusting traffic counts from 2003 and 2006 with growth factors at ten other intersections, for 25 total study intersections. These intersections are shown in Figure 8.15 and the PM peak hour turning movement volumes summarized on Figure 8.16. Overall, the highest intersection volumes were seen at the interchange intersections between Snoqualmie Parkway/SR 18 and I-90, south of the City limits. In the City of Snoqualmie, the highest volumes were seen at the intersection of Snoqualmie Parkway and Douglas Avenue.

Average weekday traffic volumes for key City corridor segments were estimated based on peak period intersection counts, Washington State Department of Transportation (WSDOT) counts,[6] and data from the *Snoqualmie Ridge II Traffic Monitoring Report* (Mirai, 2008).[7] Intersection level of service (LOS) was calculated at the 25 study intersections using the methodologies defined in the *Highway Capacity Manual* (Transportation Research Board, 2000) using Synchro software package calculations. Table 8.4 and Figure 8.3 summarize the LOS results.

8-III: FUTURE TRANSPORTATION SYSTEM, METHODOLOGY

The Transportation Element study area includes incorporated Snoqualmie as well as UGA planning areas, implementing land use plans and proposed area forecasts by considering predicted traffic volumes of future land uses. While GMA requires that the Transportation Element include at least a 10-year forecast of traffic volumes, the City uses a 20-year planning horizon to be consistent with Element3 Land Use growth assumptions. To determine future development impacts, the City developed a travel demand forecasting model using the following four steps:

- Aggregate existing and future land uses into TAZs;
- Forecast the number of auto trips generated;
- Determine where the auto trips are going;
- Assign the auto trips the roads.

To ensure that the travel demand forecasts are reasonable, the base year 2012 was validated to 2010 traffic volumes obtained from intersection-level turning movement counts. By adding in expected land use and transportation network changes, the model is then able to develop future roadway traffic volume estimates. Intersection-level turning movement volumes were derived using post-processing methods outlined in the National Cooperative Highway Research Program Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* (1982).

Future Intersection Level of Service

Future PM peak hour turning movements were calculated using the travel demand model. Utilizing the same methodology as existing conditions, LOS was calculated for the Citywide study locations. In addition to analyzing future LOS at the same intersections as existing conditions, the intersections of SR 202 / SE Newton Street and 372nd Ave SE / SE North Bend Way were also calculated. These were added due to additional traffic added at each location due to expected roadway extensions. The new LOS results are shown in Figure 8.8; table notes where intersection changes are planned as compared to Existing Condition.

[6] *2009 Annual Traffic Report*, WSDOT

[7] For more information on Methodology, see Appendix 8-I: Average Daily Traffic & LOS, Methodology.

Figure 8.15 *Study Area Intersections for Existing Daily Traffic*

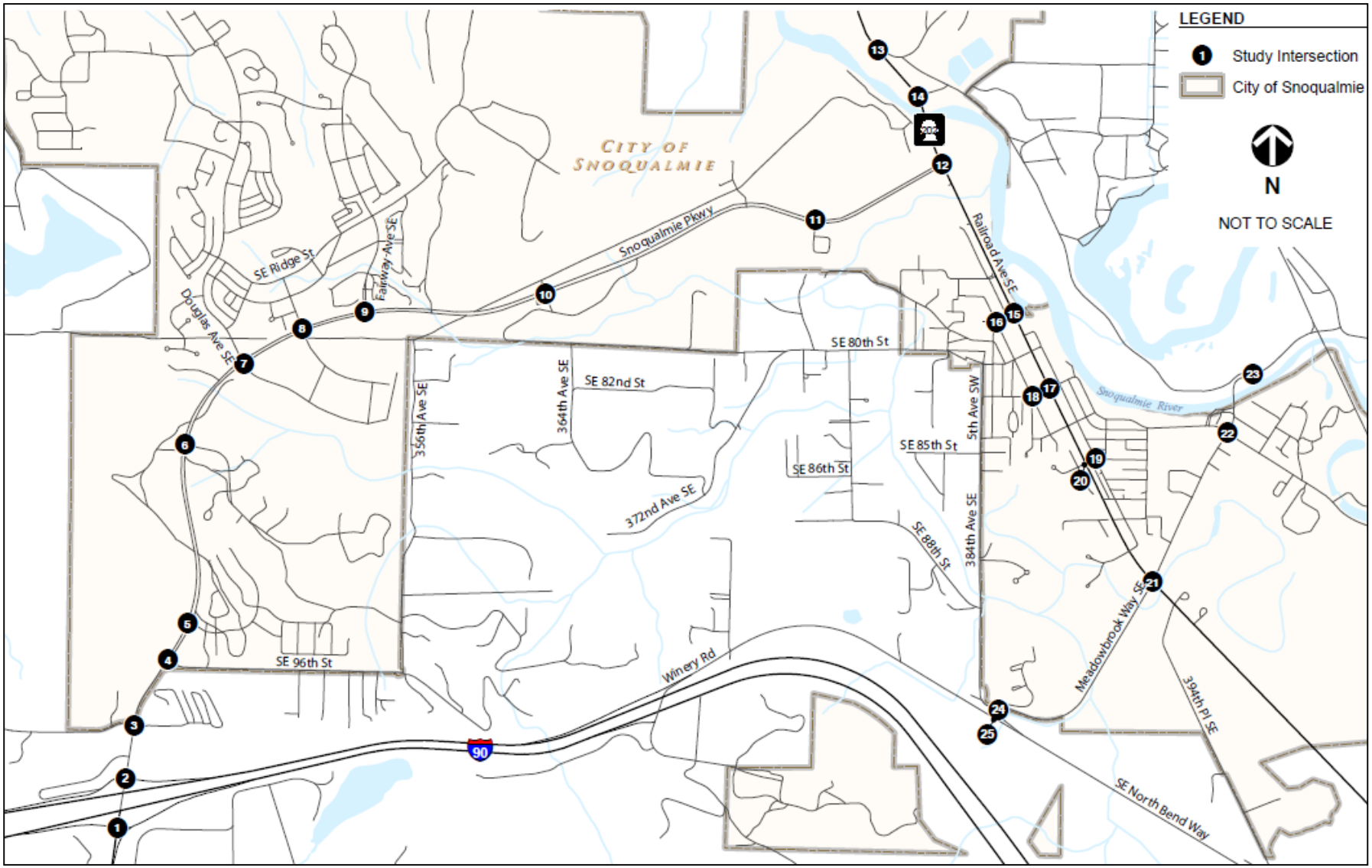
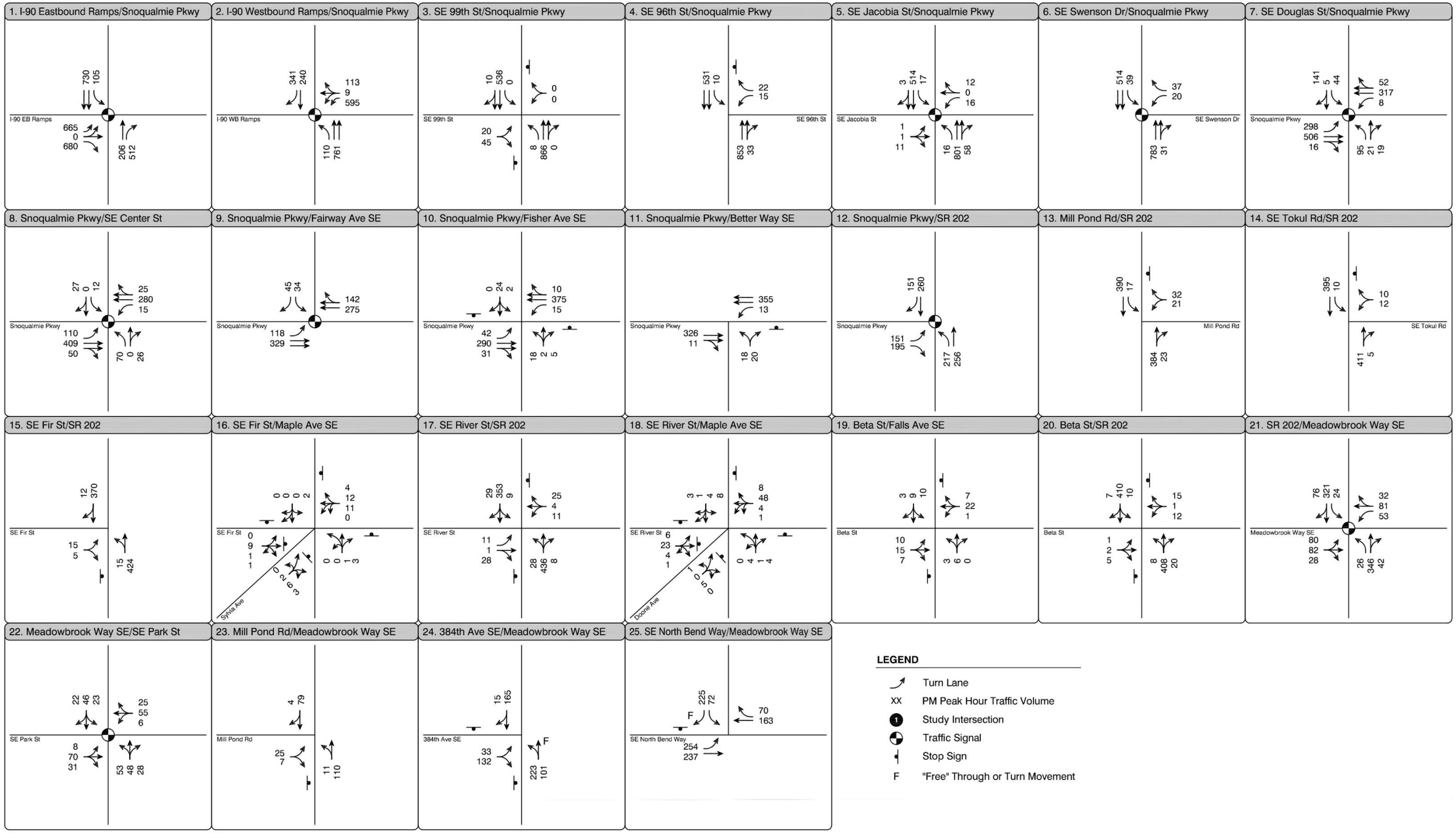


Figure 8.16 *Turning Movement Volumes*



PM PEAK HOUR TRAFFIC VOLUMES AND LANE CONFIGURATIONS - EXISTING CONDITIONS

FEHR & PEERS
TRANSPORTATION CONSULTANTS

Dec 22, 2010 CEC
N:\Projects\SE08–0076.06_Snoqualmie TR Update\Graphics\Draft\CAD\phtv_layout.dwg

Table 8.15
EXISTING AND FUTURE LAND USE BY TAZ

TAZ	Existing Households	Future Households	Current Employment	Future Employment
1	1	1	0	0
2	0	310	0	0
3	96	96	0	0
4	140	250	0	0
5	235	265	0	0
6	0	0	1,240	1,502
7	1,321	1,321	145	145
8	945	945	240	240
9	235	235	0	0
10	7	7	0	1,068
11	21	402	0	0
12	150	180	0	0
13	55	120	80	80
14	103	430	0	0
15	1	1	140	140
16	0	75	5	5
17	123	130	0	0
18	98	98	0	0
19	63	75	0	0
20	74	105	355	400
21	179	180	50	65
22	23	23	25	25
23	2	2	20	20
24	147	120	120	245
25	27	27	125	20
26	3	3	80	80
27	71	70	55	65
28	0	460	0	1,172
29	0	0	0	0
30	0	0	0	0
31	49	605	0	0
32	0	0	0	125
TOTAL	**4,169**	**6,479**	**2,715**	**4,400**

After initial land use projections were submitted to for transportation analysis, there were moderate corrections and adjustments made to land use assessments. The estimated current employment was: increased in TAZ 16 to 213; increased by approximately 100 for TAZs 6 and 7; reduced by approximately 53 for TAZ 10; and increased by approximately 40 for TAZ 32. Other adjustments provided moderate differences in some TAZs. Once Land Use was finalized, numbers were checked against initial estimates, and it was concluded the modifications would not result in any significant changes to the analysis. These differences are noted primarily to account for and explain land use table differences between Land Use and Transportation Elements.

Figure 8.17 TAZ Map, Methodology Areas.

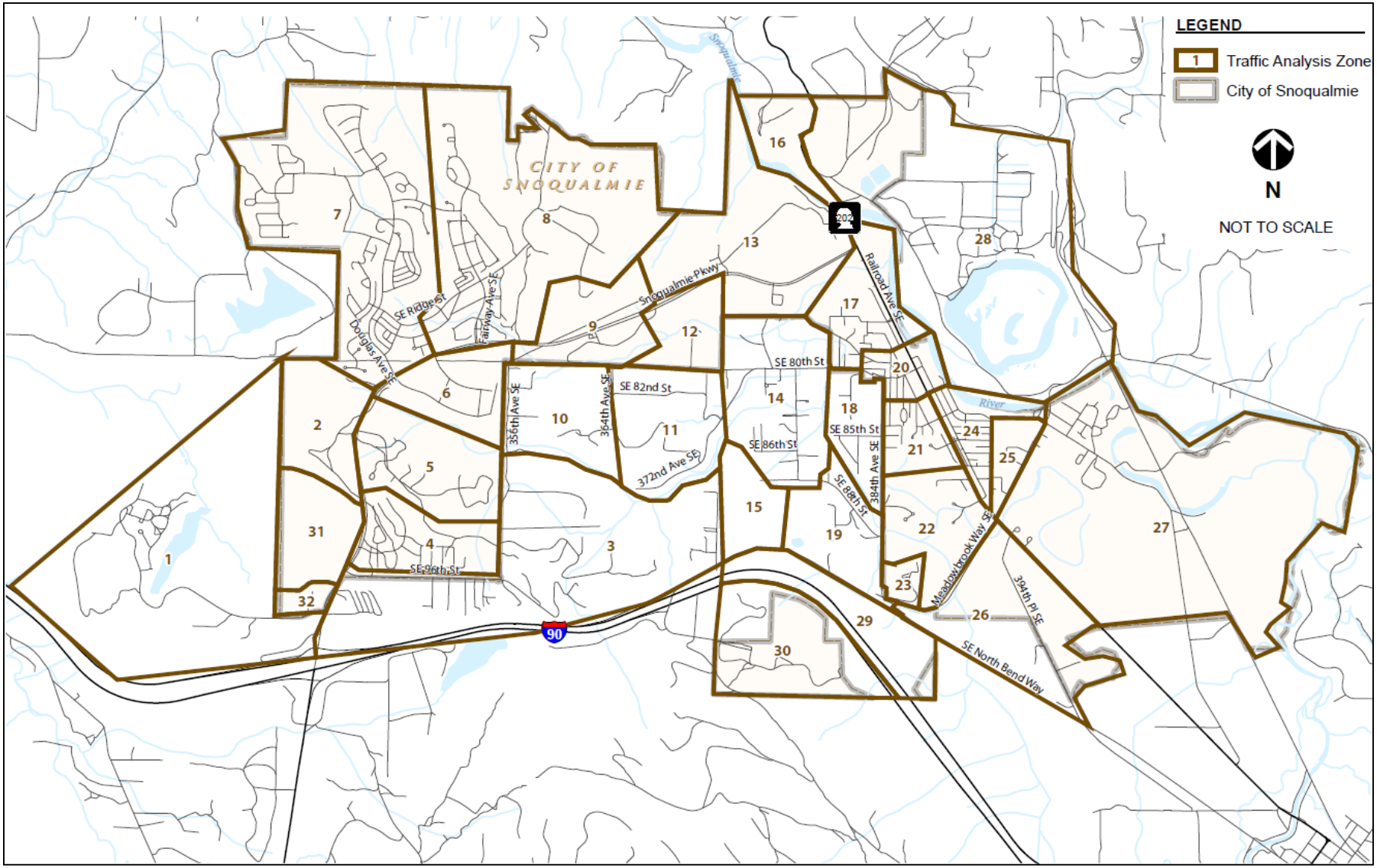


Table 8.16
2032 TRANSPORATION FACILITY PLAN

Project Location	Project Description	Agency	Cost	Term	Comments
A. ARTERIALS and INTERSECTIONS					
Tokul Road/SR 202 Roundabout	Reconfigure intersection to a single-lane modern roundabout, with new storm drainage, illumination system and pedestrian facilities.	City/ WSDOT	$5,095,000	Short	TIB; Muckleshoot Tribe
Snoqualmie Parkway		City		-	
-- *Intersection Improvements*	Remove asphalt in the intersections of Snoqualmie Parkway and Douglas Ave SE, and Snoqualmie Parkway and Fairway Ave SE; cement replacement and reconstruction of sidewalks and pedestrian ramps.	City	$1,000,000	Short	PSRC
-- *Grind & Overlay*	Between concrete intersections	City	$4,000,000	Medium	Local
-- *Other Improvements*	Replacement of other intersections, Median upgrade	City	$1,200,000	Medium	Local
-- *Parkway & Fisher Traffic signal*	Install a traffic signal or pedestrian-activated light	City	$500,000	Medium	Local
Snoqualmie Parkway/99th Street Intersection Improvement	Installation of a Roundabout	CIty	$3,000,000	Long	PSRC:TIB; Developer Mitigation
SE Newton Street from Doone Street to Silva Ave.				-	
-- *From SR 202 to Peggy's Place*	Reconstruction with utility replacement,some pedestrian improvement and new street segment	City	$700,000	Medium	CDBG for design and pedestrian amenities
-- *From Peggy's Place to 384th*	Reconstruction with utility replacement	City	$550,000	Long	TIB/Mitigation
-- *Sidewalk, 2nd St to Peggy's Place*	Sidewalk addition	City	$60,000	Medium	WSDOT Safe Routes to School, City
-- *Sidewalk, from SR 202*	New sidewalk/trail improvements		$220,000	Medium	CDBG
B. SR 202 CORRIDOR IMPROVEMENTS					
Historic Downtown Improvements Phase II-A : SE Fir Street to SE River St.	Acquire additional ROW; provide combination of angle and parallel parking on west side of SR202 between King St. and River St; channelization revisions at King St. and River St. intersections and between King St. and Fir St.; Relocate transit stop southerly between River St. and Newton St.; Add sidewalk/trail on the west side of SR 202 between Fir St. and River St.; Add angle parking both sides between King St. and Fir Street where feasible and approved by WSDOT; Overlay roadway between Fir St. and River St.; pedestrian signal at River st.	WSDOT/ City	$4,200,000	Short	HUD, WSDOT, and PSRC. Revised per Downtown Master Plan recommendations.
Historic Downtown Improvements Phase II-B: SE Fir Street to SE King St. and SE River St. to SE Newton St.	Reverse angle parking on east side between Fir St. and King St, and between River St. and Newton St.; channelization revisions between River St. and Newton St.;overlay, and sidewalk/trail on the west side of SR 202 between River St. and Newton;		$5,300,000	Medium	PSRC; TIB; WSDOT

Table 8.16
2032 TRANSPORATION FACILITY PLAN

Project Location	Project Description	Agency	Cost	Term	Comments
SR 202 Phase III: SE Northen St. to the Snoqualmie River Bridge	Improve lane width, intersections, parking access, on-street parking, sidewalks, street lighting, streetscape and traffic calming measures, trail connections	WSDOT/ City	$7,000,000	Medium	PSRC; TIB; WSDOT
SR 202 Phase IV: SE Newton St. to Meadowbrook Way SE	Sidewalks, ADA CC&G, Planting strips, street trees, storm water improvements, traffic calming measures, transit stops and overlay	WSDOT/ City	$7,800,000	Medium	PSRC; TIB; WSDOT
Intersection of SR 202 and Meadowbrook Way SE	Channelization Improvement. Provide an eastbound to northbound left turn pocket and modify signal phasing to protect left turn movements.	City/ WSDOT	$150,000	Medium	WSDOT
SR 202 & South of Meadowbrook Wy, Elk Pull-out	Provide a pull-off option for elk viewers along Meadowbrook Farm	WSDOT/City	$400,000	Medium	PSRC; WSDOT
Intersection of SE Fir Street and Maple Ave.	Modify the 5-legged intersection to favor the movements between SE Fir Street and Maple Avenue. Add a traffic circle, if effective.	City	$250,000	Medium	Local; Utility funds for utility repairs
SE King Street between SR 202 and Maple Ave.	Convert the existing street into a pedestrian plaza with parking and allow local traffic for local access.	City	$450,000	Medium	Local; Utility funds for utility repairs
C. BRIDGES and MAINTENANCE					
Kimball Creek Bridge on SR 202 south of Snoqualmie Parkway	Replace and widen bridge. Coordinate design to accommodate the trail underneath the bridge.	City/WSDOT	$3,000,000	Medium	$700,000 design cost estimated.
Meadowbrook Way SE -Box Culverts (two of them)	Install Box culverts	City	$1,780,000	Short	PSRC
SR 202 Snoqualmie River Pedestrian Bridge	Construct Pedestrian/Equestrian/Utility bridge over Snoqualmie River.	City/WSDOT	$3,700,000	Long	TIB; WSDOT; PSRC
SR 202 Snoqualmie River Bridge Replacement	Replace existing bridge over Snoqualmie River.	WSDOT	$28,000,000	Long	WSDOT
D. LOCAL STREETS					
Street Reconstruction Program	Combines multiple CIP listings	City	$6,475,000	*Ongoing*	Local
Street/Alley Maintenance Program	Appropriate connections to be determined in sub-area planning and provided with development in UGA	City	$20,000	*Ongoing*	Local
E. PEDESTRIAN/BICYCLE					
Centennial Trail Extension	Extend Centennial Trail from SR 202 Improvements at Newton to Meadowbrook Way	City	$1,300,000	Medium	RCO; TIB; PSRC; Local
Meadowbrook Way SE from SR 202 to Park Street	Add a sidewalk/trail, from Mt. Si High to Hemlock St, and from Snoqualmie River to Park St.	City	$200,000	Medium	Local
Meadowbrook Way from SR 202 to North Bend Way	Add a sidewalk/trail	City	$1,300,000	Long	TIB; PSRC
Schusman Ave. to Park Street	Construct sidewalk with planting strip.	City	$150,000	Medium	Local
SE Delta Street, SR 202- Falls	Construct sidewalk	City	$50,000	Medium	Local
SE Park St., River to Newton St.	Construct sidewalk or riverside trail segment	City	$100,000	Medium	Local
Falls Ave SE, River St. to Beta St.	Sidewalk widening	City	$30,000	Medium	Local

Table 8.16
2032 TRANSPORATION FACILITY PLAN

Project Location	Project Description	Agency	Cost	Term	Comments
F. TRANSIT					
Snoqualmie Park and Ride Lot	Coordinate with Metro to plan for, site, and construct a park and ride lot to serve the city and the UGA. Likely locations would include near I-90/SR 18 interchange.		$2,200,000	Long	GO Bond/ Metro
G. OUTSIDE CITY/COORDINATED PROJECTS					
North Bend Way/Meadowbrook/ 384th	Coordinate to plan for, site, and construct a roundabout	WSDOT/ King County	$3,700,000	Long	King County; PSRC; TIB; Snoqualmie Casino
Snoqualmie Parkway and I-90 WB on-ramp	Coordinate to plan for intersection improvements, including potential additional right-turn lanes, conversion of weigh station, and/or flyover additions	City/ WSDOT	TBD with regional partners	Long	WSDOT; PSRC; TIB. On ramp design estimated at $95,000
384th Ave Widening, SE River to Meadowbrook Way	Corridor Improvements	City	$4,850,000	Medium	TIB
-- *384th Ave. SE from River Street to Meadowbrook*	Obtain right of way from King County and reconstruct with pedestrian trails and/or sidewalk	City/King County	$1,500,000	Medium	TIB
E. FUTURE UGA GROWTH IMPROVEMENTS					
Douglas Street Extension, onto 82nd	Coordinate to plan for, site & construct UGA arterials in annexation process	Developer/ City	TBD with development proposal	Long	Developer Mitigation Funding
Fisher Avenue Extension, to 364th	Coordinate to plan for, site and construct UGA arterials in annexation process	Developer/ City	TBD with development proposal	Long	Developer Mitigation Funding
North Alignment Option, from Douglas Extension, on 82nd St., to 80th St.	Coordinate to plan for, site and construct UGA arterials in annexation process	Developer/ City	TBD with development proposal	Long	Developer Mitigation Funding
South Alignment Option, from Fisher Extension, on 86th St., to 376th St.	Coordinate to plan for, site and construct UGA arterials in annexation process	Developer/ City	TBD with development proposal	Long	Developer Mitigation Funding
King Street Extension, to 384th	Coordinate to plan for, site and construct UGA arterials in annexation process	Developer/ City	TBD with development proposal	Long	Developer Mitigation Funding
Newton Street Extension, from 376th to 2nd St./Newton St.	Coordinate to plan for, site and construct UGA arterials in annexation process	Developer/ City	TBD with development proposal	Long	Developer Mitigation Funding
372nd Ave SE Extension, from 86th St. to North Bend Way	Coordinate to plan for, site and construct UGA arterials in annexation process	Developer/ City	TBD with development proposal	Long	Developer Mitigation Funding
SR 202 & Newton St. Traffic signal	Install a traffic signal	City	$400,000	Long	Developer Mitigation Funding

Capital Facilities & Utilities
Table of Contents

LIST OF TABLES

A. INTRODUCTION

A Capital Facilities and Utilities Element is used to identify essential public capital facilities along with private infrastructure facilities, establish acceptable levels of service, and ensure that these facilities and services are provided in a timely manner to support existing and future residents. It is the mechanism the City can use to coordinate its physical and fiscal planning. Since capital facilities and utilities are closely related, the City's comprehensive plan has combined them both into one element. This element reviews staffing and related facility needs; inventories existing facilities; review the Capital Improvements Plan and potential funding sources; and concludes with review of the fiscal environment and mechanisms available to make the capital investments.

Goal 9: ***The City provides, and encourages other public and private entities to provide, high quality public services and infrastructure facilities to Snoqualmie's current and future residents.***

B. DRIVING FACTORS: CAPITAL FACILITIES & UTILITIES

Capital Facilities and Utilities planning is primarily driven by two guiding concerns – maintaining the community standard for services, and addressing existing and future infrastructure needs.

The City has long operated with a strong standard for community services, which means maintaining parks at a certain level of upkeep, maintaining the aesthetic of roads and public spaces, and expedient emergency service. Different departments have internal policies that reflect this strong community standard, such as the Parks Department maintaining grass playfields on a schedule to maintain turf height. Police have a "no call too small" policy, where every incident will eventually receive a police visit to write up a formal report, whereas in other communities people may have to print & fill out their own forms for more minor incidents such as vandalism. Other departments may have other internal policies or special services to meet special community needs. As every community is unique, with different geographic layouts; natural emergency profiles; weather challenges; housing stock; demography; types of crime incidents; and different types of facilities and services offered, service planning (and to some extent, facility planning) has to adjust to community needs and expectations.

A strong community service standard means that police, fire, public works and parks departments all require certain staffing levels to adequately address current and future citizen demand. Capital Facilities analysis estimates future population service demand, and attempts to measure the quantity and quality of facilities and staff needed to meet that demand. Staffing growth may also sometimes imply facilities growth, to accommodate staff needs ranging from office space to police cars. Overall, this element attempts to project the cost of providing the necessary materials for staff to accomplish their duties. Concurrent with the need to manage physical demands, and staff growth to meet that demand, the City must likewise grapple with managing citizen expectation on the level of service the City can reasonably, fiscally support.

Capital Facilities

As used in this element, "Capital Facilities" means all property, real or personal, used by the City to deliver municipal services, together with the property addressed by the *School District No. 410 Capital Facilities Plan* adopted annually, included by reference in this Plan. The plans of other public agencies specifically mentioned are also included in this plan by reference.

This definition does not include minor equipment under $20,000 that has a regular 5-year replacement schedule, or consumable supplies.

Another driving factor for this analysis concerns infrastructure. While separate water, wastewater and storm water system plans are incorporated by reference, top system plan priorities are reviewed in this element. The schedule of planned utility capital improvements, as well as the schedule for planned streets and parks system capital improvements, are addressed in the Capital Improvements Plan (CIP), which is adopted herein by reference. While the Comprehensive Plan may only be amended annually, pursuant to RCW 36.70A.130(2)(a)(iv), the Capital Facilities Element and/or the CIP adopted by reference may be amended separate from general Comprehensive Plan amendments, concurrent with the adoption or amendment of the City budget.

C. SIX-YEAR GROWTH PROJECTIONS

This Element incorporates a number of different scenarios in projecting future population and employment growth including the completion of the SRII development and Kimball Creek Village, the planned Salish Lodge expansion, and the eventual development of the Snoqualmie Hills Planning Area.

This and other elements of the comprehensive plan contain projections for growth and capital facility needs through 2032, the end of the current 20-year planning period. GMA requires that at least a six-year plan of financing be developed. A full list of capital projects recommended for funding over the six year period until 2020 is set forth in Element 2, Implementation Section D, Capital Improvement Program. The Six-Year Capital Improvement Plan (CIP) will be updated yearly in conjunction with the annual City budget process and Implementation Element.

GMA & Capital Facilities

RCW 36.70A.070 of the Growth Management Act (GMA) requires a city's capital facilities element to contain the following:

1. An existing capital facilities inventory, including location & capacity;
2. A forecast of future capital facilities needs;
3. The proposed location and capacities of expanded or new facilities;
4. A minimum six year facilities financing plan with projected and clearly identified funding capacities;
5. A requirement to reassess the land use element if funding levels fall short. At all times the land use element, Capital Improvement Plan & financing plan should remain consistent.

Policy 7.1.8 requires that the land use plan be reassessed should anticipated funding fall short

In the 2010 U.S. Census, the City of Snoqualmie population was 10,670. By April 1, 2013, the Washington State Office of Financial Management population estimate for the City was 11,700. The City population is expected to continue growing over the next 20 years; in the near-term, the population projection for the six-year park plan timeframe is estimated to be 14,410 persons. The below table incorporates data from Land Use Table 7.3 on the 2032 City population projections.

Table 9.1
2022 & 2032 PROJECTED POPULATION

	Interim Year 2022			Total Year 2032		
	Low	**Middle**	High	Low	**Middle**	High
2010-2032 Est. Population Gain	3,206	**3,504**	3,504	3,912	**4,782**	5,071
2010 Census Base Population	*10,670*					
Total Population	13,876	**14,174**	14,174	14,582	**15,452**	15,741

Table 9.2: 6-Year Population Growth indicates the 2018 population projection for the City and UGA.

Table 9.2
6-YEAR POPULATION GROWTH*

	2018		
	Low	Med	High
2010-2018 Est. Population Gain	3,281	3,281	3,281
City population in 2010 Census	*10,670*		
Total Population	13,951	**13,951**	13,951

Based on data originally reported in Land Use Table 7.6, this table assumes that Snoqualmie Ridge I & II will finish residential development by 2018, that half of the projected Historic and Meadowbrook growth will have occurred, and that no additional Hills development will have occurred. For the Kimball Creek development in the Snoqualmie Falls Planning area, it is assumed that all of the associated Single Family housing will have developed, but not the multifamily housing. No other residential growth in this area is projected to have achieved building occupancy status as of 2018.

D. SIX-YEAR CAPITAL FACILITIES FINANCING PLAN

Under the GMA, a capital facilities element is required to address all public facilities except transportation facilities, which are addressed separately in the Transportation Element. Accordingly, there are separate Transportation and Capital Facilities Elements, as well as a separate 2012 City of Snoqualmie Open Space, Parks and Recreation Plan. However, planned capital facilities, transportation and park improvement are combined in the Capital Improvement Plan in Element 2, Implementation to allow comprehensive overview of planned City capital expenditures.

According to the GMA, public facilities and services shall be adequate to serve the development at the time the development is first occupied without decreasing the level of service described in the Comprehensive Plan. Adequate public facilities and services, such as water, sewer, and surface water management, are required in order to serve development. Additionally, the GMA mandates concurrency for transportation services to ensure that transportation improvements or strategies are in place at the time of development, or that a financial commitment is made to complete the improvement within 6 years.

City water and sewer plans have demonstrated the ability to meet current demand at the service levels established in the Comprehensive Plan. The City uses the King County 2009 stormwater manual to assure that new development meets the established service standards for surface water management and requirements of the current NPDES II permit. The City continues to work with all non-city-managed service providers so that they continue to meet their service standards in the projected 20-year planning period.

There are no new staffing facilities anticipated in the next six-year period of City Capital planning, though depending on population growth and service needs associate with potential annexations, the City may consider an expansion of the police station beyond 2020, as well as additional dry storage for parks maintenance equipment.

Table 9.3
SUMMARY OF GENERAL GOVERNMENT CAPITAL FACILITY NEEDS

Facility	Short Term Need	Anticipated Construction
Police Station Expansion	Low	After 2020*
Parks Maintenance Facility, equipment storage	Low	Unknown*

**Specific timing to be determined through planning process.*

As these needs are beyond the 6-year horizon, these projects are not currently addressed in the City CIP.

Revenue Sources: Unrestricted
Consistent with long-range revenue forecasts, a portion of revenues available for capital investment in the Six-Year Capital Improvement Plan (CIP) are unrestricted revenues. Unrestricted revenues do not have restrictions placed by state law on how they are spent. The City may allocate unrestricted funds to various functional areas on a percentage basis to better facilitate long-range capital planning and year-to-year consistency within the CIP. This permits the community to clearly assess the City's funding priorities to particular functional areas, and also permits those responsible for developing capital facilities to rely on specific revenue streams and plan facility development accordingly.

Revenue Sources: Developer and Other Restricted Funding
Restricted revenues include those collected through taxes and fees. Impact fees are a type of restricted revenue that allow new growth to assume an equitable share of the costs associated with growth. For development, impact fees can create public benefits, but also raise home sale prices, and thus property taxes for existing homes. A potential trade-off is reduced demand on the general fund for capital improvements that support growth.

The cost of desired capital facilities will always exceed current revenue sources, which necessitates conversations about trade-offs, and pros and cons of topics like development and density. Private redevelopment or publicly-funded improvement projects are mechanisms to provide desired amenities, but in lieu of these, community members will be faced with considering alternate funding sources, such as user fees, bonds, local improvement districts or impact fees. For more information on financing options, see Appendix 9-II Capital Facilities & Utilities Financial Primer.

E. STAFFING

The City of Snoqualmie provides multiple public services to service area residents. To ensure these services are provided at acceptable levels for both current and future residents, the City must assess and project staffing needs to adequately plan for the facilities that provide services and working space for staff to complete their duties. Although no facilities expansions are anticipated in the next six years, this section describes current trends in different departments that may affect staffing beyond the next six years, and options for facility expansions when needed further in the future.

Levels of Service

Service standards represent a yardstick against which to measure the performance of a particular type of capital facility. Service standards may be defined by local, state or federal law, as is the case with water and sewer systems and facilities. Standards may also be recommended by national professional associations, or may be locally defined based on community preferences, such as policing standards. Once service standards are established for capital facilities, they indicate the level of investment that must be made to maintain the standards. Increased population and employment growth, for example, may generate the need for increased levels of capital investment to keep capital facilities performing up to standard. Levels of Service are discussed in the Policy Plan of Element 1, under Capital Facilities and Utilities.

E.1 FIRE

The Fire Department provides fire protection services within the City limits of Snoqualmie, and also includes the Department of Emergency Management. In addition, the City contracts with the Snoqualmie Tribe to provide fire and emergency medical response to the Snoqualmie Casino and Washington State to provide Fire and medical services to Echo Glen Children's Center. Advance life support (ALS) services are provided by the King County Emergency Management Services (KC EMS) Division, which operates a unit in cooperation with Bellevue Fire Department in North Bend. The City is also a part of a regional Mutual Aid agreement that allows the sharing of resources as needed throughout the County. Fire dispatch services are contracted through NORCOM,[1] in which the City is a managing partner, in Bellevue. As of 2012, the City entered into an Interlocal Agreement with King County Fire Protection Districts #27 and #45 for shared staffing and resources to help reduce overtime demand beyond 72+ hours.

Staff: **14**

1 Fire Chief
1 Battalion Chief/Training Officer
3 Lieutenants (Shift Supervisors)
8 Fire Fighters
~19 Volunteer Fire Fighters*
Volunteers are trained to IFSAC Firefighter 1 standards & are certified as EMTs. Numbers fluctuate; **goal is 25 to supplement career staffing.*
1 Administrative Assistant

Other Statistics

- Average 2012 response time for fire emergencies, call to arrival: **5 Min., 47 Sec.** within City limits.
- Average 2012 time between citizen call and dispatch for fire emergencies: **84 Sec.**
- Due to the Snoqualmie River, Snoqualmie Falls, and potential for flood events, personnel must be certified to perform swift water & high angle rescue.

Every City is Unique

The U.S. Fire Department Profile through 2012[2] notes that,

The rates of a particular size of community may vary widely because departments face great variation in their specific circumstances and policies including length of work week, unusual structural conditions, types of service provided to the community, geographical dispersion of the community & other factors. (7)

Both career and volunteer firefighter averages also vary based on city size and region. Fire departments in the Western US have lower averages of both career and volunteer firefighters per population ratio.

Background

According to the National Fire Protection Association (NFPA) 2013 report,[2] current Fire Department staffing levels are proportionate for the current and near-term City population. Across the U.S., fire departments protecting communities of between 10,000 – 24,999 residents had a median of 1.00 to 1.34 career firefighters, per every 1,000 persons. The median value reflects that half the departments have higher values, and half lower. The report stresses that this rate is

[1] NORCOM is the North East King County Regional Public Safety Communication Agency.
[2] Karter, Michael and Gary Stein, NFPA (National Fire Protection Association), "U.S. Fire Department Profile through 2012," October 2013, http://www.nfpa.org/~/media/Files/Research/NFPA%20reports/Fire%20service%20statistics/osfdprofile.pdf, pg. 5, 7.

based on reported NFPA data, and does "not reflect recommended rates or some defined fire protection standard." The number of fire department staff is usually establish within a range of the capability level, what a community wants and acceptable community risk as established by elected officials. Multiple factors affect staffing levels including call volumes, response times, unit reliability, effective force assembly, industry standards, population levels and funding.

Minimum staffing levels are impacted by Washington Administrative Code (WAC) 296-305-05001 (10) a & (11), which state that firefighting personnel cannot enter a building to begin fire suppression until there are two people outside to rescue those operating within a structure, referred to as the "two in, two out" rule, except to perform a rescue, when a firefighting team may enter a building with only one on standby on the exterior. The Snoqualmie Fire Department LOS is set to meet state law, supporting a community standard of redressing building entries with 3 fire-suppression trained individuals, which could be 3 career firefighters, or 2 career firefighters and 1 trained volunteer firefighter.

Population growth may not directly affect future firefighter hiring, though indirect impacts, emergency services needs and community expectations may impact staffing needs, including the provision of Basic Life Support (BLS). Different regional departments may also call in mutual aid support. Should the Snoqualmie Fire Department also begin to log a larger proportion of mutual aid requests it may indicate a need for of additional firefighting staff to lessen service impacts on neighboring jurisdictions.

The Snoqualmie Fire Department has a strong volunteer firefighter base, which is typical for fire departments serving a population under 25,000 persons. Departments serving this population size have median volunteer firefighter rates of 1.14 to 20.00 per 1,000 persons. As noted in page 8 of the NFPA report, "This wide range in median rates for smaller communities reflects the fact that it takes a minimum number of firefighters to staff a department regardless of community size. Also volunteer firefighters are usually available on a part-time basis only, so it takes more of them to ensure an adequate response to each alarm." In 2013, the average experience level of the volunteer force was 3.5 years.

Performance Objectives

Fire departments must comply with state code RCW 35.103, which sets standards for specifying performance measures for major service response times. The RCW notes that it does not, and is not intended to, in any way limit of modify the authority of cities and towns to set levels of service. Each objective is to be met at 90% of the time, and is based on historical performance averages.

- Turnout time: 90 seconds.
- Response/travel time: 8.5 minutes for arrival of the first engine company at a fire suppression incident.
- Response/travel time: 6.5 minutes for the arrival of a first responder unit to an emergency medical incident.
- Response/travel time: 15.5 minutes for the arrival of a full 1st alarm response at a fire suppression incident.

The City may adopt additional policies, standards or objectives to help meet Fire Department standards per RCW 35.103.

E.2 POLICE

The Police Department provides law enforcement services including traffic safety, community policing, accident and crime investigation, crime prevention, and public education. The department presently employs 14 officers and 3 support staff. The City has one police station at the corner of Snoqualmie Parkway and SE Douglas St., which can accommodate up to 21 personnel at any given time if offices are shared during a shift, or roughly 39 for occupation throughout the day; see Section D. Inventory, for additional station information. Dispatch and jail service is provided through contract by the Issaquah Police Department; inmate management services are contracted with the City of Issaquah and King County. Although the Police Department does not oversee the Echo Glen juvenile detention center outside of City limits, staff coordinates with Echo Glen staff as appropriate for agency assistance and cooperation.

In September 2012, the Cities of North Bend and Snoqualmie entered into an Interlocal Agreement (ILA) for the Snoqualmie to provide Police services to North Bend; terms were amended for additional service in May, 2013. The agreement lasts through March, 2019. Per the ILA, Snoqualmie agreed to hire seven full time-equivalent police officers, one additional records administration person, and acquire three fully equipped patrol vehicles to provide a minimum of one officer on duty within North Bend city limits at all times. At present, officers are planned to be stationed at the Snoqualmie Police Station, though will spend substantial time on patrol in North Bend.

Staff: **19**

- 1 Chief of Police
- 1 Captain
- 4 Sergeants
- 8 Patrol Officers
- **2** Records/Evidence Technicians
- 1 Administrative Assistant
- 1 Police Support Officer
- 1 School Resource Officer

Other Statistics

- Average response time for police emergencies: Call to arrival 5 Min.; Dispatch to arrival 3 Min.
- Police received 6,147 Calls for Service in 2013
- Priority calls previously not tracked; priority call tracking planned for 2014

Background

The City previously used a per-capita approach to staffing, but as the box at right notes, it is no longer as popular as it does not assess officer performance, workload, or unique community conditions. In recent years the City has used minimum staffing to determine baseline policing needs, though various workload factors may either reduce or contribute to workloads and potentially affect additional policing needs. The Department utilizes Community-Oriented Policing, a policing philosophy systematically using partnerships and problem–solving to address the immediate conditions that impact public safety issues. The Department also maintains participation in the Coalition of Small Police Agencies (CSPA), allowing it to maximize its training budget through cooperative and flexible in-service classes. Although these practices help improve efficient and effective policing practice, training requirements, investigations or other factors may affect overtime impacts and/or staffing needs. Although overtime can in some cases be mitigated or managed,[3] additional staff may be required for investigation or special services. Additional staff may also help restore the balance between proactive policing (anticrime strategies initiated by the police), versus reactive policing (crime strategies used to respond to civilian service requests).[4] The last few years have shown increasing interest in a detective and/or dedicated traffic officer, either of which may help target specific workload needs. Over time there may be other options that would reduce officer workloads, including having reserve or non-commissioned officers processing minor calls such as vandalism, or moving away from the City's "no call too small" policy.

E.3 PUBLIC WORKS

The responsibilities of the Public Works Department include maintenance and repair of the City infrastructure, property and equipment. This includes water supply, treatment and distribution; wastewater collection and treatment; stormwater collection and discharge; street maintenance; landscaping; and facility and vehicle maintenance, including the City's Equipment Repair and Replacement Program. The Department also provides snow and ice control, flood assistance and various educational programs for residents. The department is divided into five divisions: Streets and Storm, Water, Wastewater, Fleet and Facilities.

Staffing for multiple public work utility systems is determined directly or indirectly by pertinent regulating entities. For instance, the Department of Health requires a specific number of staff be present to monitor potable water operations and water quality. In contrast, the Department of Ecology is the regulating agency that approves the City sewer plan, regulates and monitors treatment plan discharges, and oversees stormwater activity under NPDES II permit requirements. Although the pertinent regulations for these agencies do not directly require a specific number of staff, they do require certain maintenance levels and oversight, which indirectly impact staffing hours.

Staff: **21**

- 1 Director
- 1 Operations Manager
- 1 Administrative Assistant
- 1 Project Engineer
- 5 Water staff
- 6 Wastewater staff
- 3 Fleet staff
- 3 Streets & Storm staff

[3] Bayley, David and Robert Worden, US Department of Justice, "Police Overtime: An Examination of Key Issues," National Institute of Justice, Research in Brief, May 1998. https://www.ncjrs.gov/pdffiles/167572.pdf

[4] There are various studies and materials helpful in understanding policing methods, and which statistics are useful in assessing police performance. Reactive versus Proactive policing definitions reviewed in the text by: Walker, Samuel and Charles M Katz, "The Police in America, Seventh Edition," (McGraw-Hill), 2011.

Other Statistics

- There are approximately 64 miles of potable water and 43 miles of sewer pipe throughout the City.
- The Streets Division maintains 44 miles of streets.

The Public Works Director, Project Engineer, Operations Manager and Administrative Assistant are located at City Hall. Other operation and maintenance staff are stationed at either the Wastewater Treatment Plant, or the Public Works Facility building. For more information on these facilities, see the Section F. *Capital Facilities Inventory*.

E.4 PARKS

The Parks & Recreation Department manages and maintains parks, trails, multiple open spaces, play equipment, athletic courts, play fields and provides urban forestry services as well as park information and rental management.

Staff: **10**

Other Statistics

- Staff maintains over 35 parks and 24 miles of trails.
- Staff includes 8 full-time department staff, in addition to seasonal summer employment.

The Parks & Recreation Director and Administrative Assistant are located in the City Hall building. Parks operation and maintenance staff are stationed at the Public Works Facility building.

E.5 CENTRAL ADMINISTRATION

Multiple departments are grouped into Central Administration, with staff housed at City Hall. With the exception of Information Technology, little staff growth is anticipated within the next decade, as most work increases can be accommodated by processes that are already automated, technology improvements and/or shared staffing duties.

Finance & Administration Department

The Finance & Administration Department is the liaison between Snoqualmie citizens and other departments. This Department includes the offices of Administrative Services; City Clerk; City Attorney; Finance; Human Resources; Payroll; Utility Billing; Information Technology; and Communications.

Staff: **18**

Background: *Information Technology*

The Information Technology (IT) Division manages the technology necessary to facilitate City government, service City buildings and facilities, support employees citywide, and assist elected officials. This Division is responsible for computer hardware and software, telephone systems, cell phones, audio and video, security systems and Geographic Information Systems (GIS) management and services. The City is anticipating adding one position to the IT Division to support potential contracted services for the Duvall Fire District; there may be another 1 or 0.5 FTE requested by the City of North Bend in the near future as well. If the IT Division continues to grow to meet service from City service demands or contracted services to outside agencies, there is space to accommodate some of that growth in City Hall for staff persons; what is uncertain is whether there is sufficient storage space for IT equipment at City Hall as well. If current City Hall storage spaces are deemed insufficient or inefficient in the future, there is the possibility to house the IT Division at the Public Works Facility Building, or to renovate the City-owned old Snoqualmie Library Building adjacent to City Hall at 38580 SE River Street for adequate equipment safety and staff space, whichever is deemed the better option at that time.

Building Department

The City of Snoqualmie is responsible for regulatory oversight during and after construction projects. After construction projects are completed, the Building Department is responsible for fire and life safety maintenance codes in non-residential buildings through annual inspections. In 2009 the City entered into an Interlocal Agreement (ILA) with the City of Carnation to provide building inspection services.

Staff: **4**

Planning Department

The Planning Department manages current and long range planning for the City of Snoqualmie. Current planning involves implementation of adopted land use plans, policies and development regulations through land use and development application review. The Planning Department manages all land use approvals within the City, and oversees compliance with regulations that help create a more livable city. Long range planning involves planning for future City growth, development and conservation through the development and adoption of the Snoqualmie Comprehensive Plan, Shoreline Master Program and Snoqualmie Municipal Code development regulations. Long range planning also involves various strategic planning activities and documents, including sub-area plans, economic development, urban design and floodplain management.

Staff: **4**

F. CAPITAL FACILITIES INVENTORY

This section provides a brief summary of existing publicly-owned capital facilities that support services to those who live and work in the City of Snoqualmie. The descriptions are intentionally brief, with pertinent background information added as warranted. The facilities described below were assessed for potential expansions for additional staff that may be needed during the near- and long-term planning period. Although no near-term facility expansions are anticipated at this time, some alternatives for select facilities are described in case expansions must be considered for unexpected annexations or unique service needs within the planning term. The documents listed at the conclusion of this element contain more detailed information on existing and planned capital facilities in Snoqualmie.

F.1 EMERGENCY FACILITIES

Fire & Emergency Response Facilities

The Snoqualmie Fire Station, located at 37600 SE Snoqualmie Parkway, was constructed in 2005. The Station is approximately 17,360 square feet with four apparatus bays, an Emergency Operations Center, and the capacity to accommodate 36 to 40 full time equivalent (FTE) Fire Department staff. Given the size of the Fire Station, no expansions are anticipated within the span of this planning document, though if additional areas of the UGA are annexed into the city a satellite station may need to be considered to meet travel time Level of Service Standards (see Capital Facilities policies under LOS). The Fire Station's estimated replacement year is 2055.

Vehicles

- Two Basic Life Support (BLS) Units
- Two Command vehicles
- Main Engine, 6 years old
- Reserve Engine, 10 years old

Fleets & Emergency Vehicles

All city vehicles, including police, fire & special service equipment, is rented from the City Equipment Repair & Replacement (ERR) program. Having two "pumper" engines is common for a community of this size; pumpers last an average of 10-15 years. For communities with populations of 10,000 to 24,999 about half have no aerial/ladder trucks, and half have one aerial truck[2] (see Appendix 9-III *City of Snoqualmie Fleet Inventory* for more information). The City has a Mutual Aid Agreement with Eastside Fire & Rescue regarding use of a ladder truck when necessary.

Police Facilities

The City of Snoqualmie Police Station, located at 34825 SE Douglas Street, was constructed in 1999. The Station is 16,906-square feet in size, which includes 5,250 square feet of office and circulation space, as well as: an indoor firing range; holding cells; training room; interrogation rooms; classrooms; and storage facilities. The Station has 3 "executive" offices; a detectives' office; a sergeants' office; 3 additional non-designated offices; reception & lobby areas; and a large central patrol area with 6 workstations. At present the Station can accommodate up to 21 personnel at any for one shift if offices are shared, or roughly 39 for occupation by different

shifts throughout the day.[5] Currently the Police Department employs 14 officers and 3 support staff that share the work stations; there are a.m. and p.m. assignments with three 10-hour shifts assigned apiece, providing about 2 hours of overlap between shifts. Not all police staff will occupy a work station throughout their entire shift, given patrol duties and call responses. Station expansion should be based on the shift size, and amount of time and space needed to efficiently complete duties. Space modifications would be options prior to Station expansion or relocation, including: increasing the modular office approach for officers to share more space; converting the indoor firing range to office space; or recouping one workstation currently rented to the State Patrol. The costs and benefits to community relationships, policing effectiveness, and financial impacts should be considered prior to a final decision on Police Station expansion.

No expansion or modification of the Police Station is anticipated within the next six years, though depending on call service growth and priority call response times that necessitate additional police staff, the station may need additional work space within the next 15 years. The facility was designed for a future expansion via a 3,360 square foot ground-level addition, which would accommodate an additional 21 officers and support staff. Alternative scenarios include a second-story expansion over the current station parking lot, or construction of a new police station on the municipal campus location next to the Fire Station on the SE Snoqualmie Parkway. Barring expansion or relocation, the police station's estimated replacement year is 2047. The Police Department's patrol vehicles are shared among the officers, with a vehicle assigned to every two officers. Patrol vehicles are on a 5-year rotational replacement schedule.

The indoor gun range is used for the required two times/year marksmanship certifications for police officers. If the firing range was decommissioned, officers would travel to Enumclaw/ Ravensdale for biannual certifications. The indoor firing range is currently used by other local law enforcement agencies for certification. A fee is not charged for other coalition agency users, though outside users may be charged in the future

Vehicles

- 6 Patrol vehicles
- 4 North Bend Patrol vehicles
- 1 Jail Transport vehicle
- 2 Supervisory/Patrol vehicles

F.2 PUBLIC WORKS & PARKS FACILITIES

Open Space, Parks & Recreation Facilities

City facilities include a range of community, neighborhood and mini parks, various open spaces, and a network of trails used for transportation and recreation. The City has 39 parks, over 25 miles of trails and over 620 acres of open space. The Snoqualmie Community Center, located at 35018 SE Ridge Street, was built in 2012 at 12,917 square feet; it is owned by the City but operated by the YMCA; the Community Center's estimated replacement year is 2061. Parks facilities are discussed more in the 2012 City of Snoqualmie Open Space, Parks and Recreation Plan.

Transportation Facilities

The Transportation Element of this Plan provides a detailed discussion of the transportation facilities in Snoqualmie, including an inventory, functional classification and 20-year project list. The City prepares and adopts a six-year Transportation Improvement Plan (TIP) as part of the Capital Improvement Plan (CIP) each year that is drawn from the CIP, which lists both street and non-motorized projects, and can include both funded and unfunded projects. This plan is prepared for transportation project scheduling, prioritization and grant eligibility purposes**.**

Water Facilities

Water facilities serving the City of Snoqualmie and the greater current Retail Service Area are developed and maintained by the City water utility. Potable water is supplied through a combination of groundwater and local springs, including five active wells grouped into the South and North Wellfields, five storage "tanks " (reservoirs) with a distribution system of almost 64 miles of pipe, ranging from 1 to 20 inches in diameter. The City water system is

[5] Assumes double occupancy of all offices during a shift, save the three executive offices (Chief; Assistant Chief; Commander); assumes that all offices will be occupied during both shifts, save the executive offices. Assumes that central space will stay at 6 workstations, as the central area has not been evaluated for an increased number of workstations currently.

essentially separated into two areas, the Canyon Springs area and the Snoqualmie Ridge area. These two areas used to operate fairly independently of each other, but with continued growth and demand requirements in both areas, the system is now operated more holistically. About 12% of the distribution system is asbestos cement (AC) pipe located in the Canyon Springs area, much of which is undersized and is nearing the end of its useful life. The other major distribution components are 68% Ductile Iron (DI), 10% PVC, and 5% Cast Iron (CI).

Although capital improvements are fully articulated in the 2012 Water Comprehensive Plan, three system priorities are:

- Operational or component upgrades for increased mixing at the 1040 Reservoir to improve area water quality.
- Replacing aging and leaking water pipe to meet State Department of Health (DOH) water leakage standards, reduce breaks and protect water quality.
- New holding tanks to filter backwash at each plant to increase the available City water supply and reduce backwash flows to the Wastewater Treatment Plant (WWTP).

Sewer Facilities

Through its sewer utility, the City of Snoqualmie is the sole sewer service provider within City limits; some properties in the City are served by private septic systems. In addition, the City provides limited sewer service to areas outside the City limits. The City owns and operates a municipal sewage collection and treatment system that includes approximately 43 miles of gravity sewer pipes, 14 pump stations with associated force mains, and a water reclamation facility that is capable of producing reuse quality effluent and Class A biosolids. The Water Reclamation Facility, located at 38190 SE Stearns Road/38180 SE Mill Pond Road, was constructed in 1997 with about 2,000 square feet of office/laboratory space, 2,000 square feet of shop space, along with four aeration tanks and processing equipment. The Facility sits on a 30-acre lot, and is valued at $35 million. Although the City may seek to make energy efficiency, upgrades and maintenance improvements to the facility, no expansions or alternations due to capacity concerns are anticipated in the near future; if a significant customer increase occurs, capacity alterations may be required.

The water reclamation facility has one outfall to the Snoqualmie River immediately upstream of Snoqualmie Falls. Effluent is also pumped to the "Eagle Lake" holding pond located in the Snoqualmie Ridge Golf Course for reuse as irrigation water at the golf course, Snoqualmie Ridge I parks, and Snoqualmie Parkway median and street planter strips. In the summer the system cannot always produce enough reclaimed water to meet irrigation demand, at which time water is drawn from the North Wellfield and diverted to the Class A irrigation system prior to potable treatment.

Although capital improvements are fully articulated in the Sewer Comprehensive Plan currently undergoing updates, three system priorities are:

- A Raw Wastewater Pump Station upgrade to better measure flows and assure compliance with the City NPDES Permit
- A Standby Generator System upgrade to assure continued plant operation for water treatment during power outages and emergencies.
- An Ultraviolet (UV) Disinfection System upgrade to assure the City continues to meet the State Department of Ecology (DOE) reclaimed water disinfection requirements.

Stormwater and Surface Water Facilities

The Snoqualmie Department of Public Works manages drainage systems, stormwater facilities and surface water systems for the City. Stormwater management goals are to: (a) convey common storm event runoff so that the utility of streets, sidewalks and public facilities is not adversely impacted; (b) provide for system overflow during significant storm events to minimize building and property impacts; and (c) provide treatment facilities to remove pollutants.

The City's natural drainage course includes 4.1 miles of the Snoqualmie River, and 17.2 miles of streams and creeks flowing through the City limits. The constructed stormwater system in the City includes more than 70 miles of public storm drainage pipes; 4,500 catch basins; approximately 50 stormwater ponds; and 12 bioswales/rain garden features providing water quality treatment and flow control. Counts are approximate because many of the ponds and bioswales are multi-cell or multi-segment features which have been aggregated to count as single facilities. The conveyance system includes numerous flow splitters, flow controls and pollution control devices. There are nineteen stormwater outfalls to the Snoqualmie River, including an outfall from the North High Flow Bypass Line crossing steep slope areas that requires periodic geotechnical assessment. Stormwater infrastructure in older City areas is less robust, with older pipes, and some sections lacking stormwater conveyance. The Streets and Storm Division inspects drainage and stormwater facilities annually to ensure these systems are maintained and functioning as designed. Maintenance of the public stormwater system occurs via the City's Streets & Storm Division.

An increasing topic in storm water is NPDES II Municipal Stormwater Permit compliance. "NPDES" stands for National Pollutant Discharge Elimination System, a type of water quality permit authorized by the Clean Water Act in 1987. Urban areas that collect stormwater runoff in municipal separate storm sewers (MS4s) and discharge it to surface waters are required to have a permit (see EPA). There are two phases to the municipal stormwater permit program – Phase I covers cities and counties serving more than 100,000 people, and Phase II permits for small MS4s serving 10,000 to 100,000 people. The Department of Ecology (DOE) handles permit requirements and issuance, and as of their 2012/2013 issued permits, Snoqualmie was required to obtain permit coverage. The City applied for coverage under the DOE NPDES permit, which became effective as of Aug. 1, 2013. Permit holders must comply with increasing requirements over a 5 year period, including catch basin cleaning, storm sewer inspections, detecting illegal discharges to storm drains, public education, and code modification.

Although capital improvements are articulated in the Stormwater Comprehensive Plan Inventory, the 2010 Hazard Mitigation Plan Update, and the full Snoqualmie Stormwater Comprehensive Plan to be completed in 2014, three system priorities are:

- Meeting the 2010 stormwater hazard plan update requirements (most of the projects on the stormwater CIP list)
- Complying with the requirements of the City NPDES Phase II Municipal Stormwater Permit.
- Developing designs for River Street/ Park Avenue bank stabilization.

Fleets

The City of Snoqualmie Vehicle Fleet Maintenance Division maintains over 200 pieces of equipment for eight different departments. The Division provides multiple services including asset management, fleet replacement planning and purchasing, vehicle specification, used vehicle sales and maintenance. Repair work includes fire trucks, aid units, police cars, backhoes, dump trucks, pickups, mowers, portable equipment, welding and metal fabrication. The Division also conducts repairs to pump stations, wells and emergency generator facilities.

Replacement Schedules for vehicles are influenced by industry standards, but are also based on other variables. Some influential factors include equipment use, storage (covered vs. non-), availability of staff to conduct regular maintenance, procuring proper equipment (such as purchasing police units not rated for police service or purchasing cars to haul materials instead of pickups, etc.). Vehicles are also evaluated in replacement classes of standard replacement in less than/more than 5 years, such as police patrol units which are set up on a 60 month replacement. City Fleet and replacement purchasing accounts for these individual variables in addition to expected vehicle replacement age and mileage. A full inventory of Fleets equipment, valued at or above $20,000 currently or at time of purchase, is listed in Capital Facilities Appendix 9-III City of Snoqualmie Fleet Inventory.

F.3 OTHER FACILITIES

General Government Facilities

The City owns and operates other capital facilities for administrative, maintenance and special services, including the Snoqualmie City Hall in downtown Snoqualmie, and the City Public Works Facility.

Snoqualmie City Hall, located at 38624 SE River Street, was built in 2009 to green standards at approximately 14,000 square feet valued at $6.8 million. The building houses the Mayor's Office, City Administrator's Office, City Council Chambers, and staff from five City departments; its replacement year is estimated to be 2059. The lower story of City Hall has 10 workstations occupied by permanent staffing positions, with space for an additional four workstations if needed. The upper story of City Hall has 21 workstations occupied by permanent staffing positions, with space for an additional four workstations if needed; one of these space is currently rented by the Snoqualmie Valley School District for use, and is utilized by auditors during financial reviews.

The Public Works Facility, located at 38194 SE Stearns Road, was built in 1997, provides approximately 5,400 square feet of office space, 2,880 square feet of mezzanine storage space, and a 7,800 square foot municipal service garage. The Facility is the operations center for fleet, facilities, parks and most public works staff that repair and maintain the City's capital infrastructure. The Vehicle Fleet Maintenance Division maintains over 150 pieces of equipment for eight different departments. As the Public Works Facility still has room for several additional personnel, no expansion of the Public Works Facility is anticipated in the near future for staffing, however, the City may consider dry storage of parks equipment and fleets in the future to help protect and extend the useful life of maintenance equipment. The below spaces are currently not occupied by City staff, and are currently used by community service groups.

Former Administrative Office	*Historic City Hall*	*Old Snoqualmie Library Building*
8020 Railroad Avenue SE	38767 SE River Street	38580 SE River Street

Functional Plans

Functional plans are major components of the City's overall Capital Facilities Program. The following functional plans, as they now exist or as may hereafter be amended, are adopted by reference, and may be consulted for more detailed information regarding existing and planned facilities, service standards and facility development:

- *The City of Snoqualmie General Sewer Plan*. Adopted 2003.
- *The 2012 City of Snoqualmie Open Space, Parks and Recreation Plan.* Adopted by Resolution 1137 by AB 12-020.
- *The 2012 City of Snoqualmie Water System Plan*. Adopted in 2013 by Resolution 1179 by AB 13-005.
- *The City of Snoqualmie Hazard Mitigation Plan Update*. Adopted in 2010 by Resolution 946 by AB 10-057.
- *The City of Snoqualmie Stormwater Management Plan* (March 2010) & *Stormwater System Operations & Maintenance Manual* (April 2013), or the plan as adopted hereafter.

Note: While not a functional Capital plan, the City Shoreline Master Program is also adopted by reference into this Comprehensive Plan

Other Public Agency Capital Facilities

- *King County Final 2009 Comprehensive Solid Waste Management Plan*

The City of Snoqualmie is served by four other local public agencies: Snoqualmie Valley School District #410, King County Hospital District #4, the King County Library System, and King County Solid Waste Management. Of the four, only the School District and King County Solid Waste Management have capital improvement plans. As these public agencies operate and are financed independently of the City, their capital costs are not planned for in City government capital facilities financing.

The City is also served by regional and state agencies. Per state law, cities planning under GMA must include a process for identifying and siting essential public facilities (See Section G. *Essential Public Facilities*). Public capital facilities of a countywide or statewide nature have characteristics that usually make them difficult to site, such as the number of jurisdictions served by the facility; facility size; and potential adverse impacts such as noise, odor, pollution and traffic. Some facilities are privately owned and regulated by public entities, while others can be owned by the state and used by residents from throughout the state, such as universities and their branch campuses.

Public Education Facilities

The Snoqualmie Valley School District (SVSD) serves the City with public primary and secondary education at the below Snoqualmie locations. The Snoqualmie Valley School District #410 Capital Facilities Plan (CIP) is updated annually by the SVSD, and forms the basis for school impact fees, which are established in the Plan. The City Council reviews each annual update and, upon its approval by resolution, the SVSD CIP is deemed incorporated by reference in this element. The updated impact fees are adopted by ordinance subsequent to annual approval and incorporation by reference of the Capital Improvement Plan.

Administration Building
8001 Silva Avenue SE

Cascade View Elementary School
34816 SE Ridge Street

Snoqualmie Elementary School
39801 SE Park Street

Mount Si High School
Main Campus
8651 Meadowbrook Way SE

Freshman Campus
9200 Railroad Avenue SE

Library Facilities

The Snoqualmie Library, located at 7824 Center Blvd SE, was built in 2007 at 5,844 square feet. The library is owned and operated by the King County Library System as one of its 48 libraries, which has 22 million items in circulation.

G. GMA ESSENTIAL PUBLIC FACILITIES

EPFs are distinct from Essential *Capital* Facilities. Policies 7.6.3, 9.2.2, 9.2.3 and 9.3.3 more specifically address EPFs. See Appendix 9-1 *Definitions: Capital Facilities & Utilities* for more definitions of both terms.

Under the Growth Management Act, Snoqualmie cannot restrict the siting of essential public facilities (EPF; defined by GMA) within the City, and has limited control over decisions regarding these projects. However, per RCW 36.70A.200, the City Comprehensive plan must establish guidelines directing how and where these facilities can be established. As such, the following land use siting project applies to projects meeting the GMA definition of essential public facilities, such that the proposed facility (see RCWs 36.70A.200(1) & 36.70A.200(4):

a. Meets the GMA definition of an essential public facility, now and as amended; or

b. Is on the statewide list maintained by the Office of Financial Management, or on the countywide list of essential public facilities; and

c. Is not otherwise regulated by the Snoqualmie Municipal Code (SMC).

The City supports locating essential public facilities (EPFs) equitably throughout the City, County and State, as no jurisdiction or area of the City should have a disproportionate share of EPFs. The City would participate in interjurisdictional efforts to site countywide or statewide EPFs with neighboring jurisdictions. Through participation, the City would seek agreement among jurisdictions to mitigate against the disproportionate financial burden of such facilities, which may fall on jurisdictions that become the site of a facility of a state-wide, regional, or countywide nature.

The essential public facility siting process set forth below is an interim process. If a different countywide siting process is adopted through the Growth Management Planning Council (GMPC), the City may modify this process to be consistent with the GMPC recommendations. The City shall use this interim Siting Process to site EPFs in Snoqualmie, and to implement this process through appropriate procedures incorporated into the SMC.

Interim EPF Siting Process

1. Site EPFs through a separate multi-jurisdictional process, if one is available, when the City determines that a proposed essential public facility serves a countywide or statewide need.

2. Require an agency, special district, or organization proposing an EPF to provide information about the difficulty of its siting, and about the alternative sites considered.

3. Process applications for siting essential public facilities through SMC Section 17.60 — Unclassified Use Permit, and address the following criteria in addition to the Unclassified Use Permit decision criteria:

a. Consistency with the plan under which the proposing agency, special district or organization operates, if any such plan exists;

b. Include conditions or mitigation measures on approval that may be imposed within the scope of the City's authority to mitigate against any environmental, compatibility, public safety or other impacts of the EPF, its location, design, use or operation; and

c. The EPF and its location, design, use, and operation must be in compliance with any guidelines, regulations, rules, or statutes governing the EPF as adopted by state law, or by any other agency or jurisdiction with authority over the EPF.

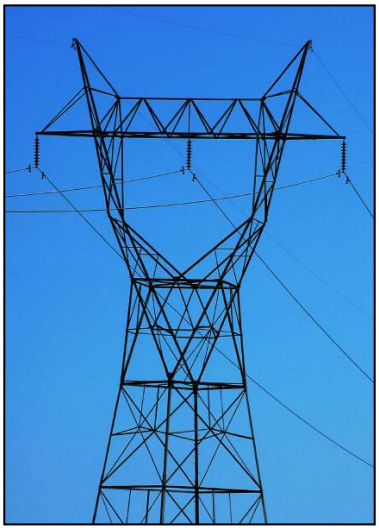
After a final siting decision has been made on an essential public facility according to this process, the City would pursue any amenities or incentives offered by the operating agency, or by state law, other rule, or regulation to jurisdictions within which such EPF is located.

For EPFs having public safety impacts that cannot be mitigated through the process, the City should participate in any process available to provide comments and suggested conditions to mitigate those public safety impacts to the agency, special district or organization proposing the EPF. If no such process exists, the City should encourage consideration of such comments and conditions through coordination with the agency, special district, or organization proposing the EPF. A mediation process may be the appropriate means of resolving any disagreement about the appropriateness of any mitigating condition requested by the City as a result of the public safety impacts of a proposal.

H. UTILITIES

The utilities portion of the Capital Facilities Element is developed per GMA Section 36.70.A.070 to address utility services in the City and the adjacent urban growth area. The main purpose of this section is to ensure that Snoqualmie will have utility capacity to adequately serve the Land Use Plan, gauging the ability of existing and planned utility facilities to meet future demand. Generally, providing utility services and meeting future population demand in the City is not hindered by serious constraints. This section presents basic information regarding the general location and capacity of all existing and proposed utilities, including electrical, natural gas, telephone, cable and broadband. Generally, the City may recommend "service goals" for these, but does not have ultimate authority to affect them directly, except in its agreements to pay for services. Water, wastewater, and stormwater utilities are discussed in the Capital Facilities section. City agencies and private companies providing utility services use independent rate bases to fund capital investments, operations and maintenance costs. Private utilities are thus not reflected in the general government capital facilities financing. Further information and/or planning documents are available from individual utilities. Please note that "Facility" in the below policies refers to utility facilities.

H.1 ENERGY



Electricity and natural gas are provided by Puget Sound Energy (PSE), a private, investor-owned utility with the responsibility for providing energy service to over 1.1 million and more than 760,000 natural gas customers in 6,000 square mile, a ten-county service area.

Other than one project listed in the electricity section, PSE has no major projects planned in Snoqualmie at this time, but new projects can be developed in the future at any time due to:

1. New or replacement of existing facilities to increase capacity requirements due to new building construction and conversion from alternate fuels.
2. New or replacement of existing facilities for improved maintenance and reliability.
3. Replacement or relocation of facilities due to municipal and state projects.

Electricity

PSE imports electrical energy from generating stations in Canada, on the Columbia River, and from other sites inside and outside of Puget Sound Energy's service territory, including the Snoqualmie Falls hydroelectric plant. PSE's electric

system is interconnected to distant generation by way of 230 kV transmission lines which bring power into north King County to the Sammamish and Novelty Hill Transmission Substations (Redmond). There the voltage is transformed (or reduced) from 230 kV to 115 kV, with 115 kV Transmission lines linking the transmission substations to distribution stations in Snoqualmie and throughout King County.

In the Snoqualmie/North Bend Area, there are four small hydroelectric developments. In Snoqualmie, PSE owns the Snoqualmie Falls Hydroelectric Project, which completed a $250 million, five-year upgrade in 2013. Upgrades to the 111-year-old facility's two power plants included new turbines, penstocks, and water-intake systems that will increase energy production to 54 Megawatts, enough to power 40,000 households. A 115 kV transmission switching station called Snoqualmie Switch is located next to Snoqualmie Falls. This substation integrates the Snoqualmie Falls generation into the power system, as well as providing an interconnection point for the transmission lines in the area.

The Snoqualmie Switch 115 kV substation is the hub of the local transmission system serving the area. Here two lines connect to the two powerhouses that make up the Snoqualmie Falls generation complex. A third line extends to the Fall City substation and beyond to the Novelty Hill substation, while a fourth line extends to Seattle City Light's Cedar Falls generation and beyond to the Berrydale substation. Finally there are two lines to the Lake Tradition substation in Issaquah, which supply most of the power to the Snoqualmie area when the area load exceeds area generation. Bonneville Power Administration (BPA) also owns a 5-mile long transmission line from PSE's Mount Si substation to Tanner Electric's substation in North Bend.

The highest voltage transmission line currently within the Snoqualmie/North Bend Area is the Monroe-Echo Lake 500 kV line owned by BPA. This line is the only North-South 500 kV in Western Washington. BPA also owns a 345 kV line on the North flank of Rattlesnake Ridge. This line, connecting Rocky Reach on the Columbia River, to Maple Valley in Renton, traverses the area from east and west. Both of these high voltage lines supply power to the Puget Sound Area electric transmission system.

There are four distribution substations (Snoqualmie, Mount Si, Fall City and North Bend) which serve the Snoqualmie area. From these four substations there are 10 distribution circuits serving the customers in the City of Snoqualmie. The distribution substations reduce voltage to standard distribution levels, 12 kV, with 12 kV feeders distributing power to individual customers. The Snoqualmie distribution substation is located within the City of Snoqualmie and is south of the Snoqualmie River and just east of the Power Station near the Falls.

Green Energy

Various State policies, as well as local and utility initiatives, contribute to the generation of green power. Washington is one of 30 states with a Renewable Energy Portfolio standard, which requires the purchase of green energy. In this State, this means 15% renewable sourcing by 2020 outside of hydropower, and cost-effective conservation.

PSE also offers programs such as household green power purchasing. In 2013 the City participated in a Green Power Challenge to encourage program participation. In eight months there was 156% increase in account enrollment, raising participation to 8.3%, double the state average. In return, PSE awarded the City $40,000 towards a solar panel installation, which the City plans to install on its Community Center.

How is Natural Gas Supplied?

Natural gas is supplied from gas wells in the Rocky Mountains and in Canada, transported interstate by Williams Northwest Pipeline to the Beaver Lake Gate Station, which has a 650,000 cubic feet per hour (cfh) capacity.

From Gate Stations, supply mains transport gas to district regulators that reduce pressures to distribution levels of between 25 to 60 psig. There are approximately two miles of supply mains within city limits, typically 4"- 20" in welded steel pipe that has been coated and is cathodically protected to prevent corrosion. There is one district regulator within the city limits.

Distribution mains are fed from the district regulators, ranging in size from 1-1/4" to 8" in pipe typically made from polyethylene (PE) or wrapped steel (STW). Individual residential service lines are fed by 5/8" or 1-1/8" diameter distribution mains, whereas commercial and industrial service lines are between 1-1/4", 2", or 4" in diameter.

There is one future project planned, as PSE is under contract with Snohomish PUD to expand the Snoqualmie Switching Station to interconnect two small hydro generating plants being developed east of Snoqualmie. Substation expansion construction is expected in 2015.

Natural Gas

Puget Sound Energy supplies natural gas to more than 780,000 customers in six Western Washington counties: King, Kittitas, Lewis, Pierce, Snohomish and Thurston. PSE currently serves over 3,600 customers within the City of Snoqualmie.

According to the American Gas Association, the average US house uses about 750 natural gas therms per year for both heat and hot water, or approximately 70,500 cf per household, per year. Natural gas is not considered an essential service, and therefore service is not mandated. Extension of service is based on requests and the results of a market analysis to determine if revenues from an extension will offset the cost of construction.

H.2 TELECOMMUNICATIONS

Telecommunication is broadly defined as communication using technology, covering a broad range of services in the City including telephone, fiber optics, communications satellites, cloud and enterprise services, and high speed internet. Although these technologies were once offered separately, they are increasingly combining into merged networks operated by separate, competing providers.

Telephone

Local telephone service in Snoqualmie is provided by CenturyLink, usually as PSTN (Public Switched Telephone Network), also called POTS (plain old telephone service). CenturyLink provides local, long distance, internet access, as well as cloud, enterprise and data services in 37 states. The investor-owned company is headquartered in Monroe, Louisiana, and is the 3rd largest telecommunications company in the U. S., with 17 million access lines and 5 million broadband customers.

Area telephone service is provided via both copper and fiber optic aerial and buried cables. The City and its UGA are located partially in the North Bend and Fall City exchanges of CenturyLink's service area, with extended area service available between the two. Service is provided by a remote switching location at 9418 384th Ave SE and by the North Bend switch located at 131 E 2nd St, with the Snoqualmie Ridge Phase I (SRI) population served by the Snoqualmie Ridge Business Park remote switch and a Next Generation Digital Loop Carrier (NGDLC) facilities. The SRII population is served by the Echo Glen remote switch, with enough capacity to meet the development's forecasted needs. Additional infrastructure, including a potential Mill Pond Road site, could easily be developed for future growth, likely with minor infrastructure investments using cabinets (rather than buildings) to house equipment. CenturyLink plans to continue to reinforce its fiber cable and facilities network which runs throughout the Valley as determined to be reasonable to support new development as well as growth driven by existing customers.

Voice over Internet Protocol (VoIP) telephone service, also known as digital telephone service, is locally available through Comcast. VoIP telephone uses technology that allows phone calls to be made over an IP network, such as the Internet. In addition, mobile telephone phone services (cellular phone) are widely available in the City via different cellular networks such as Verizon Wireless, AT&T Mobility, Sprint and T-Mobile US. Mobile telephones make and receive telephone calls over a radio link via a cellular network to the public telephone network. All of Snoqualmie is serviced by multiple cellular networks, although access reliability may vary by provider.

Cable Broadband & Television

Comcast Corporation provides Snoqualmie with cable services including broadband and cable television. An investor-owned firm headquartered in Philadelphia, Pennsylvania, it is the largest U.S. cable company serving more than 24 million customers in over 40 states. The company operates a small system in the Upper Snoqualmie Valley including the Snoqualmie, North Bend, and Fall City areas. The City of Snoqualmie is serviced by a combination of fiber cable and coaxial cable, backed up by small standby power facilities in several locations in the City. Local nodes are served by a main fiber cable, with connections of coaxial cable running from these nodes to individual homes. Comcast has no immediate plans for additional facilities, however, the company expects to extend its fiber optics and coaxial cable network as needed to serve additional development.

The demand for cable television is likely to increase at the same pace as population growth, though the demand for broadband services such as cable television, VoIP telephone or data/internet services, will likely grow as networks are

bolstered with additional bandwidth. This growth will most likely occur relative to data/internet service, as more content becomes accessible online. These broadband services can be provided over fiber optic networks, cable networks or Digital Subscriber Line (DSL) telephone networks.

H.3 SOLID WASTE

Solid waste disposal services are provided by various private hauling companies which use King County landfills as the ultimate waste destination; the City of Snoqualmie has a contract with Waste Management Inc. for solid waste collection services. The disposal of solid waste is guided by the *King County 2013 Comprehensive Solid Waste Management* and the 2009 Update to the Washington State Solid Waste Management Plan. Collected garbage is transported to the King County Cedar Hills Regional Landfill in the Maple Valley area. Through various waste reductions and changes in the economy, it is expected that Cedar Hills will accommodate the area's garbage through the year 2025; the County has begun exploring alternative waste disposal options. When Cedar Hills reaches capacity and closes, the division's solid waste tipping fee is expected to increase to cover the cost an alternate disposal method, whether it is export to an out-of-county landfill or disposal at a waste-to-energy (WTE) facility. Significant capital investments have been identified for the interim handling of waste streams, including five new recycling & transfer stations. New stations have been constructed in Shoreline (2008) and Bow Lake (2012); a Factoria station will be constructed from 2014-2016; and the closure and replacement of stations operating in Algona and Houghton will follow. In 2011, the overall recycling rate for the county was 52 percent.

> *"While waste export to an out-of-county landfill is still a viable alternative, current and emerging conversion technologies might also offer viable alternatives for handling all or some components of King County's waste in the future."* – King County 2013 Comprehensive Solid Waste Management Plan

APPENDIX

9-I DEFINITIONS: CAPITAL FACILITIES & UTILITIES

All definitions are intended to apply to the context of this element.

Capital Facility Categories

The Capital Facilities portion of this Element consists of the following components, which are incorporated by reference in this Plan or are contained in other Elements of this Plan: General Government Services Capital Facilities, including the facilities necessary to house the police, fire, public works, planning, building, administrative, and parks and recreation departments of the City; parks and recreation capital facilities; transportation capital facilities, including roads, sidewalks, bridges, and associated urban design elements; other public agency capital facilities; and utilities including water, sewer, storm water, electricity, natural gas, telephone, and communications, cable and stormwater

Concurrency

Providing essential public facilities that enable the City to stay within its adopted level of service standards within three years of substantial completion of any proposed development or significant portion of a development, except for transportation facilities (detailed in the transportation element).

Essential Capital Facilities

Facilities required to be provided concurrent with development based on adopted level of service standards; this includes:

1. Buildings to house police, fire, public works, city administration, planning, building and parks and recreation staff and equipment;
2. Major equipment for the above named services;
3. Water and Sewer Utility Capital Facilities;
4. Transportation Capital Facilities;
5. Parks and Recreation Capital Facilities;
6. School Capital Facilities.

Essential Public Facilities

Facilities or a regional or statewide significance: airports, state education, and state or regional transportation facilities (RCW 47.06.140); regional transit authority facilities (RCW 81.112.020); state and local correctional, solid waste handling, and inpatient facilities including substance abuse, mental health, group homes, and secure community transition facilities (RCW 71.09.020).

Infrastructure

Includes Capital Facilities and Utilities.

Level of Service

Availability and/or size of facilities deemed necessary to the provision of public service to the residents of Snoqualmie on a per capita or other basis.

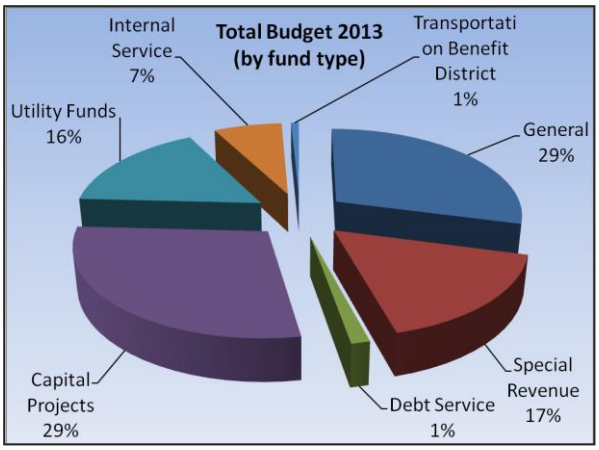
Utilities

Applies to both City-Managed Utilities and Non-City Managed Utilities.

City-Managed Utilities:	Water, Sewer and Stormwater Utilities.
Non-City-Managed Utilities:	Electricity, Natural Gas, Telephone, Cellular Communication Facilities, Cable Television and Internet Cable.

9-II FINANCIAL PRIMER: CAPITAL FACILITIES & UTILITIES

Multiple components affect a City's financial terrain at any given time, including internal financial policies and practice; federal or state legal requirements; which funding mechanisms or strategies are deployed; and, as always, local context. This section provides an overview of City finance, and some of the tools available to plan for capital expenditures.



Overview

Since 2010, the City has averaged a projected spending revenue and budget of between $30-$40 million annually, with roughly

$10-13 million in the General Fund;
$5-8 million Utility Funds;
$3-8 million Capital Project Funds
$3-5 million Special Reserve funds; and
$2-3 million Internal Service Funds.

Funds with lesser totals include debt service of about $300-$600 thousand annually, and Transportation Benefit District (TBD) Fund of about $100-$150 thousand annually.

The proportion of projected expenditure out of any fund in a given year is proportionate to the expected revenue that fund will see, which is in turn influenced by residential and commercial growth and assessed property values, utility rates, grant awards, and the use of different fiscal mechanisms and strategies applied in a budgetary cycle. Some funds are restricted to specific uses, such as utility funds or TBD funding; other funds are unrestricted. Fund purposes generally are as follows:

General Fund:	Accounts for most taxes, and functions as a sort of current expense fund.
Special Revenue Funds:	Revenue/Costs for specific, limited purposes.
Debt Service Funds:	Accrues money to pay off debt.
Capital Facility Funds:	Construction of major capital facilities, such as buildings, streets & utility plant.
Enterprise/Utility Funds:	Fees to commodity users, such as water, sewer & stormwater.
Internal Service:	Fees for service from one department to another.

Local Factors

In addition to regularly-occurring variances in City funding sources and expenditures, other factors impact the City's ability to raise funds, or depend on regular funding streams.

Property Tax Limitation: In Washington State, taxing districts are restricted to annual property tax increases of the lesser of inflation, or one percent. This limitation applies to the collected taxes, and not on the growing value of the property, such that a taxing district can only collect one percent more than the previous year's cumulative property tax total – effectively instituting what was commonly called Initiative 747. Previously, property taxes were subject to a 106% annual cap. The property tax restriction dramatically altered the regular, non-voted revenue of a City's property tax base. As stated in the 2011, Legislative Guide to Washington State Property Taxes, "Property taxes are the largest source of tax revenue for local governments, generating about $4.4 billion in 2010. The property tax is the fourth largest source of revenue to the state General Fund…".[6]

The property tax restriction has a disproportionate impact on the residential component of a City's tax base. Cities have 4 major local tax options: property tax, sales tax, utility tax, and business and occupation (B&O) tax (though few cities use the B&O). Commercial uses add to all of these tax bases, while residential uses only directly support property and utility taxes. Over time, this law will shift the tax burden from the residential base to the commercial base. In an

[6] See, pg 3, 10. This law, embedded in RCW 84.55 was passed as HB 2416 in 2007 in a special Legislative session, came at the heal of a court ruling that declared the 2001 Initiative 747 unconstitutional, as it rested on a previously overturned 2% property tax limitation passed in Initiative 722; 722 was ruled unconstitutional because it violated the constitutional requirement that initiatives only involve a single subject. www.leg.wa.gov/LIC/Documents/EducationAndInformation/Citizens_Guide_to_Property_Taxes.pdf

environment where revenues grow slower than the general cost of living, these tax changes will force cities to "do more with less," sometimes concentrating resources in the most critical areas at the expense of providing a full menu of services.

Levy Lid Lifts. A levy lid lift is one method the City may use to bridge operational funding gaps or to target specific capital expenditures; it is allowable under RCW 84.55.050, providing it is passed by a simple majority of voters when the jurisdiction's current property tax rate is below its maximum amount. A levy lid lift allows the City to levy an amount approved by its voters up to the applicable statutory rate limitations, effectively increasing the City's tax "base" for the purposes of the 101% levy lid in future years: in subsequent years, the jurisdiction can levy 101% of this new base. However, such mechanisms should be used sparingly and avoided where possible, as it is not prudent for a city's budget to rely on voter-approval.

> *"A government for the people must depend for its success on the intelligence, the morality, the justice, and the interest of the people themselves."*
> *– Grover Cleveland*

Still, for many cities, property tax revenues account for between 30% and 50% of general fund revenues. With these revenues now constrained, cities will be forced to cut services or seek voter approval to exceed the 1% limit. Fiscally, some cities will operate much like school districts seeking regular levy authorization to continue providing services. With or without regular lid lifts, the public will need to be informed and engaged in the process. A well-informed citizenry will allow more staff energy and resources to be focused on productive functions.

One-Time Tax Revenues. In addition to the effects of property tax limitations as described above, it should be noted that a notable yet decreasing proportion of the City's tax base over the next 6 years consists of one-time revenues. Approximately 40% of the City's sales tax collections are derived from construction activities. As the City has experienced significant growth over the past two decades, the relative amount of revenues received from construction activities are high. As the City matures and its development stabilizes, one-time revenues will decline and plateau at a level representing base retail and construction/tenant improvement activities.

State & Federal Mandates. In addition to decreasing revenue sources, the City may have to account for increasing costs to respond to increasing federal or state requirements. One example includes NPDES II Permit requirements for stormwater quality and storm system inspections. Another example relates to the conversion of all publically-owned City fleet vehicles to bio-fuels or electric power by June 1, 2018, subject to the State Department of Commerce (Doc) rulemaking by June 1, 2015.[7] Finally, the federal Affordable Healthcare Act may also impact City expenditures.

Operational Finance Strategies

The strategies for financing planned capital investments generally focus on either increasing revenues or decreasing the cost of providing service.

Revenue-Focused Strategies

Assessing tax policies: Consider options for replacing lost property tax, including the role of future levy lid lifts or voter-approved bond measures.

Economic development planning: Identify ways to grow the non-residential tax base.

Growth paying for growth: Review impact and development fees.

Considering new special purpose districts or dedicated funding: Create dedicated funding for parks or public health, so that they do not have to compete with general government services.

Local improvement districts: Assess the beneficiaries for new capital costs.

Reviewing user fees: Maximize fee uses to reduce general fund demands (parks & recreation, current planning).

Seeking new tax mechanisms: Work with Association of Washington Cities (AWC) and others to expand list of funding options (Tax-Increment Financing (TIF), local option taxing authority).

Reviewing land use policies: Review the mix of land uses in the Comprehensive Plan to optimize the capacity to generate revenue, and minimize the costs to meet service and infrastructure demands.

[7] See *Alternative Fuel Use Requirement*: US DOE, Alternative Fuels Data Center, "Washington Laws and Incentives for Fleet Purchaser/Manager," http://www.afdc.energy.gov/laws/laws/WA/user/3261 last updated 07/22/2013; also RCW 43.19.648 & 43.19.647.

Cost of Service-Focused Strategies

Redesign processes: Review how services are delivered; look for efficiencies and technology options.

Establishing performance measures & benchmarks: Manage toward measurable objectives.

Reviewing LOS standards: Assess current service standards and practices.

Focusing on core business areas: Assess and prioritize demands for scarce resources.

Zero-based or outcome-based budgeting: Consider alternative approaches to budgeting.

Reviewing labor policies: Assess the role of labor agreements in growing public service costs, such at cost of living adjustments (COLAs), step increases, work rules, etc.

Partnering opportunities: Identify opportunities to partner with other entities, including non-profits and community groups such as schools, youth recreation organizations, Adopt-a-Parks, etc.

Contracting opportunities: Identify opportunities to use the private sector.

Review land use policies: Assess the cost implications of current land use policies.

Capital Financing

Financing for capital projects can be estimated as the sum of general fund surpluses in a given year, the total Real Estate Excise Tax (REET) revenue, utility revenues and general facilities charges, and any project grants or awards that may be directed toward specific capital projects.

Revenue Sources and Strategies

There are several potential sources of revenue for the construction of capital facilities. The following are recommended strategies for addressing capital shortfalls when they occur:

Percentage of General Tax Revenues: This would be using a percentage of the general City taxes, including property, sales, business and occupation, and utility taxes. Although such revenues are mainly used for general City operations, most cities allocate a portion of their general revenues for capital. The ability to dedicate some of the City's General Fund resources depends on baseline operating challenges. To the extent practical, one-time revenues from construction activities have already been allocated to one-time uses.

REET: Real estate excise tax (REET) revenues are based on the sales price of real estate transactions, and are restricted to capital purposes; the tax is at its allowed maximum of 0.5%. Given continuing new construction in the City, REET will be a significant source of capital funding. It can be estimated based on expected sales from new construction plus re-sales of existing residential and commercial activity (5% residential assessed value and 2% commercial assessed value annually).

Developer Mitigation: The City has the authority to require developers to mitigate the impacts of their projects either through developer impact fees or general mitigation under SEPA. It should be noted that the law does not allow the City to impose both methods in a way that charges developers twice for the same mitigation. In addition, mitigation will only be used to ensure that new development pays its "fair share" of capital facilities (unless precluded by any agreement).

State and Federal Grants: There are various State and Federal Grant programs, though most are intended for parks, streets, water, sewer and storm. Each of these sources is discussed in the respective documents for these services.

Special Assessment Districts: This includes Local Improvement Districts (LID), Utility Local Improvement Districts (ULID), and Road Improvement Districts (RID), intended to finance a public improvement where specific property owners receive greater benefit than the general public.

Project Deferrals: The Comprehensive Plan includes investments which are not Level of Service (LOS)-driven, such as non-essential transportation projects. When facility funding needs are great, one option is to defer nonessential projects beyond the 6-year planning horizon.

Sale of surplus properties: The City may raise funds through the sale of excess properties, such as the old Administration Building, which became surplus in 2012 with the completion of the new City Hall.

Debt Financing

In addition to the above, several forms of debt are available to the City including the following:

Limited Tax General Obligation Bonds: (Non-voted) Limited tax general obligation bonds, also referred to as "councilmanic" bonds, do not require voter approval and are payable from the issuer's general tax levy and other legally available revenue sources. As these funds are used to run the government, a pledge to repay councilmanic bonds directly affects a municipality's operating budget; money budgeted to pay debt service on these bonds is unavailable to pay for other municipal services. There are constitutional and statutory limits on a municipality's authority to incur non-voted debt. The state constitution limits non-voted municipal indebtedness to an amount not exceeding 1 and 1/2% of taxable properties' assessed value within City limits.

Unlimited Tax General Obligation Bonds: (Voted) These bonds differ from limited bonds in that they require voter approval because they are repaid from ad valorem property taxes in excess of the general tax levy limit. When citizens vote for a bond, they are being asked to approve: (a) Issuance of a fixed general obligation bond amount and (b) Levying additional tax to repay the bonds, unlimited as to rate or amount. Once voter approval is obtained, the City is still restricted by constitutional and statutory debt limits on this type of debt, at 2 and 1/2% of the assessed value of property. An additional 2 and 1/2% is allowed for water, light and sewers.

Revenue Bonds: Revenue bonds are issued to finance new revenue-producing public enterprises, or to improve an existing revenue-producing facility. These are mostly used for utility financing and are discussed more in City *Water and Sewer Comprehensive Plans*.

State of Washington Municipal Debt Programs: The State of Washington has several programs to finance municipal improvements, the most significant of which has been the Public Works Trust Fund, which offered low-interest financing in the past. The fund was valuable, although it is limited to items such as pipes rather than buildings or equipment. This fund has unfortunately been depleted in recent years by the state legislature to pay for education funding; recent legislative action indicates that fund revenues will be completely unavailable at least through 2019.

Conditional Sales Contracts and Lease Purchase Obligations: Generally, most cities have the authority to enter into conditional sales contracts (including leases and lease-purchase agreements) permitting a city to acquire certain types of property over time, including equipment and real property. A lease purchase agreement permits a public entity to lease property and, at the end of the term, exercise an option to purchase the property at a nominal price. The conditional sales contract's term may not be longer than the useful life of the item being purchased. If the City defaults in its payments, vendors may repossess the property. This type of debt has to be included in the City's debt limitations.

Improvement District Financing: These bonds are issued to finance improvements within a defined area and are repaid from special assessments levied on property owners who receive a direct special benefit from the financed improvement, separate and apart from the general benefit accruing to the public.

Transportation Funding

The City of Snoqualmie currently funds transportation improvements, operations, and maintenance through a variety of revenue sources, including local taxes and fees as well as state and federal grants. In addition to City programs, WSDOT currently funds improvements along SR 202 through Snoqualmie and King County funds arterial improvements in unincorporated areas adjacent to the City. Revenues available to the City for financing transportation improvements vary each year, depending upon the amount of development activity, number of successful grant applications, and local economic factors. The City can use funds from the following sources for transportation improvements:

- City general funds (sales tax, real estate excise tax, and property tax)
- Distributions from State gas tax
- Developer contributions and mitigation (impact fees)

- Bond financing
- Local Improvement District financing
- Contributions from local/regional jurisdictions (King County)
- Grants-both Federal and State sources

Conclusion

The capital facilities required to serve the expected new population resulting from the land use assumptions have already been addressed in Water and Sewer Comprehensive Plans as well as developer agreements, and planned improvements to maintain infrastructure outside of service requirements are financed within expected and identified revenues in the City Capital Improvement Plan.

Even so, there is always some uncertainty in funding streams, and available funding for non-required capital service projects may not always coincide with desired construction years. A common strategy is to defer projects until the funding climate is more appropriate, though some of the strategies in this primer may occasionally be employed, including levy lid lifts or issuance of general obligation bonds when warranted.

9-III CITY OF SNOQUALMIE FLEETS INVENTORY

For equipment with existing or purchase value above $20,000

VEHICLE #	MAKE	YEAR	DEPARTMENT USER	DEPT #	SIZE	FUEL	PURCHASE DATE	PURCHASE $	VALUE
2	CHEVY	2001	Finance & Administration/City Hall	**14**	M	U	6/20/2001	$32,300	$3,230
505	HONDA	2005	Finance & Administration/City Hall	**14**	M	U	5/20/2005	$33,000	$18,315
305	TOYOTA	2008	Finance & Administration/City Hall	**14**	L	U	2/20/2008	$25,000	$7,857
501	CHEV.	2012	Building	**24**	M	U	10/1/2011	$27,200	$24,000
504	CHEV.	2012	Building	**24**	M	U	10/1/2011	$27,200	$24,000
310	BACK HOE/CASE	1997	Water	**34**	H	D	6/19/1997	$68,000	$49,844
228	DUMP TCK- GMC	1998	Water	**34**	H	D	6/19/1998	$77,000	$51,301
240	TRAILER-ETNYRE	1998	Water	**34**	H	N	6/19/1998	$20,000	$13,325
232	CHEVY	2003	Water	**34**	H	U	6/20/2003	$45,000	$22,311
237	FORD	2003	Water	**34**	M	U	6/20/2003	$41,800	$4,180
455	CHEVY	2004	Water	**34**	M	U	6/20/2004	$27,000	$17,988
303	CHEV.	2010	Water	**34**	M	U	6/1/2010	$31,200	$29,613
233	CHEVROLET	2011	Water	**34**	M	U	5/1/2011	$28,500	$34,096
236	FORD	2000	Wastewater	**35**	H	D	6/20/2000	$40,000	$26,650
231	CHEVY	2004	Wastewater	**35**	H	U	6/20/2004	$24,000	$16,095
224	GRADER-JD	1975	Streets	**42**	H	D	6/19/1975	$95,000	$63,293
241	MOWER-FORD	1997	Streets	**42**	H	D	6/19/1997	$80,000	$44,400
226	BACKHOE-CASE	1997	Streets	**42**	H	D	6/19/1997	$68,000	$49,844
229	DUMP TCK-GMC	1998	Streets	**42**	H	D	6/19/1998	$77,000	$51,301
230	CHEVY	2004	Streets	**42**	H	U	6/20/2004	$24,000	$15,990
225	KUT KWICK	2008	Streets	**42**	H	D	10/1/2008	$51,932	$39,839
434	FORD	2008	Streets	**42**	H	U	5/1/2008	$24,000	$14,600
235	CHEVROLET	2008	Streets	**42**	M	U	7/1/2008	$24,000	$10,725
227	FORD	2009	Streets	**42**	H	U	8/1/2009	$75,000	$90,625
257	KUBOTA	2011	Streets	**42**	H	D	5/1/2011	$63,778	$69,626
234	FORD	2012	Streets	**42**	H	U	10/1/2012	$35,000	$41,859
248	SWEEPER/Schwarze	2014	Streets	**42**	O	D	8/20/2013	$340,000	$340,000
245	LIFT TRK - CAT	1997	Fleets	**48**	H	N	6/19/1997	$25,000	$0
30	GMC	1998	Fleets	**48**	M	U	6/19/1998	$27,500	$0
24	CHEVY	1998	Fleets	**48**	H	U	6/19/1998	$27,000	$0
21	CHEVROLET	2008	Fleets	**48**	M	U	7/1/2008	$24,000	$10,725
407	MOWER-TORO	1999	Parks	**76**	H	D	6/19/1999	$33,600	$11,172
430	LOADER - JDEERE	2000	Parks	**76**	H	D	6/20/2000	$20,000	$13,325

9-III CITY OF SNOQUALMIE FLEETS INVENTORY

For equipment with existing or purchase value above $20,000

VEHICLE #	MAKE	YEAR	DEPARTMENT USER	DEPT #	SIZE	FUEL	PURCHASE DATE	PURCHASE $	VALUE
34	FORD	2002	Parks	**76**	M	U	6/20/2002	$27,000	$0
435	TY-CROP	2002	Parks	**76**	M	N	6/20/2002	$20,000	$13,325
443	CHEVY	2003	Parks	**76**	M	U	6/20/2003	$24,000	$15,990
442	TORO	2007	Parks	**76**	H	D	4/11/2007	$31,200	$17,160
406	TORO	2008	Parks	**76**	H	D	7/1/2008	$54,400	$29,920
401	FORD	2008	Parks	**76**	M	U	4/1/2007	$29,000	$12,325
454	FORD	2008	Parks	**76**	H	U	5/1/2008	$27,150	$14,721
466	TORO	2008	Parks	**76**	M	N	4/15/2008	$25,000	$12,341
403	FORD	2009	Parks	**76**	H	U	7/1/2009	$27,000	$23,261
404	FORD	2011	Parks	**76**	H	U	10/1/2011	$38,156	$33,400
502	CHEV.	2012	Parks	**76**	M	U	10/1/2011	$27,200	$24,000
503	CHEV.	2012	Parks	**76**	M	U	10/1/2011	$27,200	$24,000
412	MOWER-TORO	2013	Parks	**76**	H	D	6/1/2013	$101,364	$80,800
Emergency Vehicles									
130	FORD	2004	Police	**21**	M	U	6/20/2004	$30,000	$7,300
123	CHEVY	2008	Police	**21**	H	U	9/1/2008	$53,300	$11,664
101	CHEVY	2009	Police	**21**	H	U	5/1/2009	$57,900	$20,031
102	CHEVY	2009	Police	**21**	H	U	5/1/2009	$57,900	$20,031
103	CHEVY	2009	Police	**21**	H	U	9/1/2009	$57,900	$20,031
104	CHEVY	2009	Police	**21**	H	U	9/1/2009	$57,900	$20,031
108	CHEVY	2009	Police	**21**	H	U	9/1/2009	$57,900	$20,031
106	CHEVROLET	2011	Police	**21**	H	U	11/1/2010	$62,600	$32,552
109	CHEVROLET	2011	Police	**21**	H	E	11/1/2010	$62,600	$32,552
122	CHEVROLET	2011	Police	**21**	H	U	11/1/2010	$62,600	$32,552
105	CHEVY	2013	Police	**21**	H	U	6/1/2013	$78,371	$68,750
107	CHEVY	2013	Police	**21**	H	U	6/1/2013	$78,371	$68,750
110	CHEVY	2013	Police	**21**	H	U	6/1/2013	$78,371	$68,750
111	CHEVY	2013	Police	**21**	H	U	6/1/2013	$78,371	$68,750
601	FIRE E-LAFRANCE	2003	Fire	**22**	H	D	6/20/2003	$390,000	$224,737
603	FORD	2006	Fire	**22**	H	D	8/1/2007	$114,000	$46,708
602	CRIMSON FIRE T.	2008	Fire	**22**	H	D	1/1/2010	$510,000	$429,500
607	FORD	2009	Fire	**22**	H	U	12/2/2008	$38,000	$15,925

For equipment with existing or purchase value above $20,000

VEHICLE #	MAKE	YEAR	DEPARTMENT USER	DEPT #	SIZE	FUEL	PURCHASE DATE	PURCHASE $	VALUE
606	CHEVY	2011	Fire	**22**	H	U	7/1/2011	$45,000	$44,175
604	FORD	2013	Fire	**22**	H	D	3/15/2013	$257,031	$168,500
Generators									
243	GENERATOR/ONAN	1999	*Not part of mobile fleets*	**35**	H	D	6/19/1999	$110,000	$80,630
244	GENERATOR/ONAN	1999	*Not part of mobile fleets*	**34**	H	D	6/19/1999	$110,000	$80,630
G-1	WWTP CUMMINS	1997	*Not part of mobile fleets: Wastewater*	**35**	H	D	6/19/1997	$60,000	$43,980
G-2	KIMBAL CK	1995	*Not part of mobile fleets*	**35**	H	D	6/19/1995	$75,000	$54,975
G-3	POLICE KOHLER	1998	*Not part of mobile fleets: Police*	**21**	H	N	6/19/1998	$35,000	$25,655
G-4	LIFT-BP KOHLER	2008	*Not part of mobile fleets*	**35**	H	N	1/1/2008	$35,000	$30,065
G-5	CITYHALL-KOHLER	1997	*Not part of mobile fleets: City Hall*	**14**	H	N	6/19/1997	$35,000	$25,655
G-6	LIFT E KOHLER	1997	*Not part of mobile fleets*	**35**	H	N	6/19/1997	$35,000	$25,655
G-7	LIFT F KOHLER	1998	*Not part of mobile fleets*	**35**	H	N	6/19/1998	$35,000	$25,655
G-8	LIFT K3 KOHLER	1998	*Not part of mobile fleets*	**35**	H	N	6/19/1998	$35,000	$25,655
G-9	LIFT L- KOHLER	2001	*Not part of mobile fleets*	**35**	H	N	6/20/2001	$35,000	$25,655
G-10	LIFT 1 GENERAC	2003	*Not part of mobile fleets*	**35**	H	N	6/20/2003	$35,000	$25,655
G-11	LIFT Z KOHLER	2003	*Not part of mobile fleets*	**35**	H	N	6/20/2003	$35,000	$25,655
G-12	FIRE ONAN	2005	*Not part of mobile fleets: Fire*	**22**	H	N	2/20/2005	$40,000	$29,320
G-13	LIFT K-2 KOHLER	2005	*Not part of mobile fleets*	**35**	H	N	5/1/2005	$35,000	$25,655
G-14	LIFT N-6 KOHLER	2007	*Not part of mobile fleets*	**35**	M	N	3/1/2007	$35,000	$25,943
G-15	1260 PS KOHLER	2007	*Not part of mobile fleets*	**34**	H	D	7/1/2007	$90,000	$77,310
G-16	1260 PS KOHLER	2007	*Not part of mobile fleets*	**34**	H	D	7/1/2007	$90,000	$77,310
G-17	1260 PS KOHLER	2007	*Not part of mobile fleets*	**34**	H	D	7/1/2007	$90,000	$77,310
G-18	LIFT-3 KOHLER	2011	*Not part of mobile fleets*	**35**	M	N	1/1/2011	$35,000	$31,955
G-19	LIFT-4 KOHLER	2011	*Not part of mobile fleets*	**35**	M	N	1/1/2011	$35,000	$31,955
G-20	KOHLER 200KW	2011	*Not part of mobile fleets*	**34**	M	N	4/1/2011	$35,000	$32,165

Note

Department Users are identified for "Billing" purposes of replacement vehicles, as well as the Maintenance & Operations (M&O) cost in the Equipment Repair & Replacement (ER&R) software, and City budgeting. All equipment is "owned" by the Fleet Division and rented to various user groups. Generators, which also use internal combustion engines, are maintained and repaired by the City Fleet & Facilities Division.