



Final

**City of Monroe
Comprehensive Transportation Plan
and
Supplemental Environmental Impact Statement**



December 2006

Prepared by

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with

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Acknowledgements

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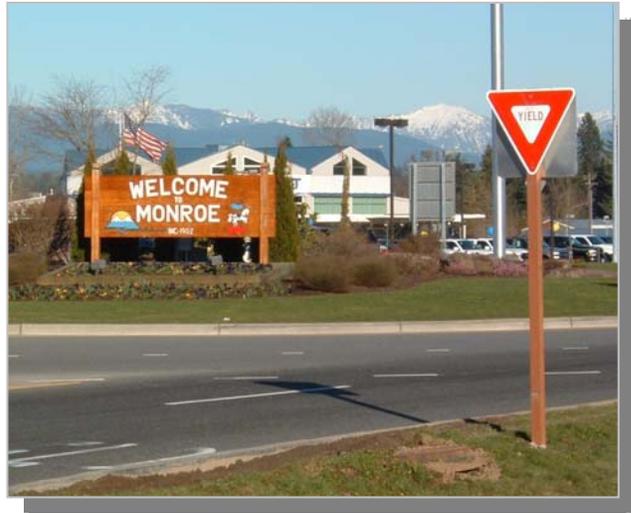
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CHAPTER ONE

Plan Overview

Monroe's transportation system is a network of structures – highways, arterial streets, local streets, rail, airport, trails, bikeways, and many other facilities. At the same time, the transportation system is a link among land use patterns, population growth, economic opportunities, and other facets of growth. The transportation system is a vital component of Monroe's social, economic, and physical structure. On the most basic level, it enables the movement of people and goods throughout the City and the region. Long term, it influences patterns of growth and economic activity by providing access to different land uses. Planning for the development and maintenance of the transportation system is a critical activity, both for promoting the efficient movement of people and goods, and for optimizing the role transportation can play in attaining other community objectives.



PURPOSE

The Comprehensive Transportation Plan is the blueprint for long-range transportation planning in Monroe. It functions as a guide for development of the transportation system. The Plan evaluates the existing system by identifying key assets and improvement needs. These findings are then incorporated into a needs assessment, which informs the direction the City will take in developing the future transportation system.

This Plan is multi-modal, addressing all forms of transportation in Monroe including the street network, non-motorized travel, and transit. Evaluating all modes uniformly enables the City to address its future network needs in a more comprehensive and balanced manner. Since funding is limited, the City must select among competing needs and prioritize the improvements it would like to make.

TRANSPORTATION POLICIES

The Transportation Plan reflects the needs and sensibilities of the Monroe community and, in doing so, seeks to:

- Help relieve traffic congestion and ensure safe, barrier-free mobility for all members of the community. (Goal TG1)
- Develop level of service and design standards that are consistent with surrounding jurisdictions and ensure that transportation facilities and services needed to support development are available concurrently with the impacts of such development in accordance with RCW 36.70A. (Goal TG2)

- Promote safe and efficient bicycle and pedestrian movement when improving streets and highways. (Goal TG3)
- Create commercial areas that are pedestrian, bicycle, and transit oriented. (Goal TG4)
- Encourage local and regional public transit service that contributes to the relief of traffic congestion, promotes energy conservation, and enhances mobility for the all members of the community. (Goal TG5)
- Promote mobility choices by developing a range of practical non-auto alternatives. Increase investments to enhance the attractiveness of walking, bicycling, local and regional transit routes and ridesharing. (Goal TG6)
- Provide safe and convenient access to multiple transportation modes within the North Kelsey Planned Development area. Integrate pedestrian, bicycle and transit access into a seamless transportation network; provide dedicated bicycle lanes and a bus transfer facility. (Goal TG7)

GMA REQUIREMENTS

Washington State’s 1990 Growth Management Act (GMA) requires transportation planning be directly tied to the City’s land use decisions and financial planning (RCW 36.70A.070 and WAC 365-195-325). This is traditionally accomplished through the adoption of the transportation element portion of the Comprehensive Plan. However, Monroe fulfills this mandate by adopting the Comprehensive Transportation Plan as the City’s Comprehensive Plan transportation element. In order to be GMA compliant, the Comprehensive Transportation Plan must:

- Use land use assumptions to estimate travel, including impacts to state-owned facilities;
- Inventory the existing transportation system in order to identify existing capital facilities and travel levels as a basis for future planning;
- Identify level of service (LOS) standards for all arterials, transit routes, and state-owned facilities as a gauge for evaluating system performance;
- Specify actions and requirements for bringing into compliance locally owned transportation facilities or services that are below an established level of service standard;
- Determine existing deficiencies of the system;
- Identify future improvement needs for at least ten years of traffic forecasts based on the adopted land use plan;
- Include a multi-year financing plan based on the identified needs;

- Address intergovernmental coordination; and
- Include transportation demand management strategies.

HOW THE CITY USES THE PLAN

The Transportation Element should be considered a tool for the City to aid in decision-making in all aspects of transportation planning, scheduling, and budgeting. The Plan provides policy and technical direction for development of the City's transportation system through the year 2030. It updates and expands upon the *1995 Transportation Plan* by recognizing network changes since the last plan, evaluating current and future needs, and identifying standards for future development and various infrastructure improvement scenarios.

NEEDS ASSESSMENT

A system-wide, multi-modal needs assessment was conducted to identify which aspects of Monroe's transportation system work well and which ones need improvement. An evaluation of potential solutions and investment priorities was also conducted as part of this process. The end result is that the City has a more thorough understanding of system deficiencies and a better grasp of the best way to address these deficiencies and grow the system in a sustainable manner.

POLICY DEVELOPMENT

The City creates policies to state preferences for preserving the existing system and developing the future transportation system. Policies are general statements describing how goals will be implemented, they are qualitative, but rarely include standards or mandatory requirements.

Policies are also important for communicating the community's values and needs to neighboring jurisdictions and to regional and state agencies. The City often works in collaboration with other governmental or non-governmental organizations. Having established policies in place enables the City to more easily influence change in keeping with its needs and preferences.

LEVEL OF SERVICE AND CONCURRENCY

The concurrency provisions of the 1990 Growth Management Act (GMA) require that local governments permit development only if adequate transportation facilities are, or can be guaranteed to be, available within six years to support new development.

The GMA requires each local jurisdiction to identify facility and service needs based on level of service (LOS) standards. Transportation planners and engineers use the term "level of service" (LOS) to measure how well a street or intersection operates. This measure considers the perception by motorists and passengers in terms of speed, travel time, freedom to maneuver, traffic interruptions and delays, comfort and convenience.

The City establishes LOS standards for all arterial streets, on a scale of “A” to “F”. A designation of LOS A represents the best operating conditions (free flow, little delay) and LOS F the worst (congestion, long delays). While the City assigns LOS standards for its own streets, the Washington State Department of Transportation (WSDOT) assigns LOS standards for Highways of Statewide Significance (HSS). These include SR 522 and US 2 through Monroe. The Puget Sound Regional Council (PSRC), in cooperation with WSDOT, assigns LOS standards for regionally significant state facilities, including SR 203.

Concurrency ensures that future development will not cause the system’s performance to fall below the adopted LOS standards by doing one or a combination of the following: limiting development, requiring appropriate mitigation, or changing the adopted standard. LOS and concurrency are discussed in more detail in Chapter 4.

CAPITAL FACILITIES PLAN AND TRANSPORTATION IMPROVEMENT PROGRAM

The City uses the Transportation Improvement Program (TIP) and Capital Facilities Plan (CFP) to develop a financial plan for capital improvements in Monroe. These two documents enable the City to fulfill the GMA requirement of having a multi-year financing plan based on the identified transportation needs. The GMA requires the TIP and Transportation Element to be consistent.

The TIP is required by State law (RCW 35.77.010), and the City must have an adopted TIP in order to apply for State transportation funding. The TIP is a 6-year transportation financing plan, adopted annually by the City Council, that is used to implement the list of improvement projects identified in the Transportation Plan. The Council reviews it annually and modified it as project priorities and funding circumstances change.

The Capital Facilities Plan is also an annually adopted 6-year financing plan. However, it includes non-transportation projects in addition to the transportation related projects found in the TIP. The CFP is adopted as an element of the City’s Comprehensive Plan.

ENVIRONMENTAL REVIEW

The City has conducted an environmental review of the transportation element as prescribed by the State Environment Policy Act (SEPA) and the Monroe Municipal Code. This is a “programmatic” review that analyzes the general impacts of the alternatives on the environment at a level less specific than is possible at the project level. A draft Supplemental Environmental Impact Statement (SEIS) was prepared for the plan in August 2006. This Draft SEIS examined the impacts of several alternative transportation improvements. The Final EIS documents a Preferred Alternative that blends several components of the previous alternatives into a comprehensive transportation package.

As recommended projects in the Preferred Alternative move towards implementation, the City will address the site-specific impacts of the projects to the extent that they are significantly adverse. In most cases, the anticipated impacts would be short-term, resulting from temporary construction activities.

REGIONAL COORDINATION

The City of Monroe is part of a larger region which includes local governments, adjacent counties, the state, and the federal government. Travel between the City and other jurisdictions to the west and south has increased significantly over the past decade and will continue to increase in the future.

More and more, Monroe's transportation system is influenced by what happens beyond its City limits. Growth in neighboring communities, infrastructure maintenance by regional agencies, the lack of funding for road maintenance as well as capacity expansion, and competing demands for transit services all affect mobility in Monroe. This Plan calls for effective interjurisdictional actions to address cross-border issues and to mitigate the impact of new development. The Plan also recognizes that other jurisdictions, particularly state government and transit providers, are responsible for a major share of the transportation facilities serving Monroe.

The City works with the Washington State Department of Transportation (WSDOT), Snohomish County, the Puget Sound Regional Council (PSRC), Community Transit and other organizations to address transportation problems on a regional basis. Goals, policies and actions adopted by these groups impact Monroe. The GMA requires plans of adjacent agencies to be consistent. The plans developed by these agencies that may impact Monroe are briefly reviewed below.

WASHINGTON DEPARTMENT OF TRANSPORTATION (WSDOT)

WSDOT is a regional transportation provider, serving an important role as administrator of federal and state transportation funds. Its principal mission is to keep people and businesses moving by operating and improving the state's transportation systems. WSDOT owns the three major routes connecting Monroe to the region: US 2, SR 522, and SR 203. All three of these state highways provide local as well as regional connections for Monroe's residents and businesses. The City works with the state to study these corridors and implement roadway improvements. WSDOT is an important partner, helping Monroe improve its transportation system. WSDOT is currently conducting a Route Development Plan along US 2. This plan will shape the future of US 2 and is discussed in more detail later in this chapter.

COMMUNITY TRANSIT

Community Transit provides local and regional bus service for the Monroe area. Planned service for the City is described in the *Six-Year Transit Development Plan for 2002 to 2007*. The City has developed an employee Commute Trip Reduction (CTR) program in cooperation with Community Transit. Details of the CTR program are summarized in the transit chapter of this plan.

PUGET SOUND REGIONAL COUNCIL

The PSRC sets policy for King, Pierce, Kitsap, and Snohomish counties through its long-range planning document, *Vision 2020*, and its regional transportation plan, *Destination 2030*. Both documents call for containing growth, limiting the extent of sprawl, allowing for open

spaces, and encourage future growth to be concentrated in urban centers. They also seek to provide a multi-modal transportation system that serves all travel modes, actively encouraging the use of alternatives to the automobile. Another important policy theme is a focus on maximizing the efficiency of the transportation system through transportation demand management (TDM) and transportation system management (TSM) strategies, as well as completing critical links in the network. The PSRC administers Federal funds under several programs, and acts as the Regional Transportation Planning Organization (RTPO) under State law for the four-county Puget Sound region.

PSRC certifies comprehensive plans and transportation elements for all jurisdictions within the four county regions. Monroe's transportation plan must be consistent with and supportive of PSRC's regional planning efforts. The City must plan as an urban growth area, consistent with the GMA.

SNOHOMISH COUNTY

Snohomish County has adopted Countywide Planning Policies to guide development in both incorporated and unincorporated areas of the county. The policies support county and regional goals of providing a variety of mobility options and establishing level of service standards that emphasize the movement of people and not just automobiles. The Countywide Planning Policies are also important because they provide direction for planning and development of the potential annexation areas. In line with these policies, Monroe works closely with the county to ensure an adequate transportation infrastructure is provided in the annexation areas. The Countywide Planning Policies for Snohomish County were adopted in February 1993 and revised in 2000.

Snohomish County has prepared a Transportation Needs Report (1995) to describe capacity and safety improvement needs through 2020. The report includes major arterials that will be impacted by future development and defines future capacity needs. Future needs are described in the Transportation Needs Report for several distinct areas of the county. Monroe is in Transportation Service Area E. This area is generally bounded by 108th Street SE on the north, SR 9 on the west, and the county line on the east and south. The City plans to develop Interlocal Agreements with the County for mitigation of transportation impacts.

EVERGREEN STATE FAIRGROUNDS

In 1997, Snohomish County identified a program of improvements in parking, access, and visitor services that are required for the Evergreen State Fairgrounds to meet projected growth in paid attendance. The following improvements were considered in developing Monroe's transportation plan.

- Construct a westbound free right-turn lane turning west from the SR 522 off-ramp at the intersection with US 2. Some minor signalization improvements will need to accompany this improvement.
- Install an overhead changeable message road sign (with approval from WSDOT) on existing US 2 west of the existing SR 522 Bridge to direct motorists to parking. It is

anticipated that additional parking may develop on the east side of the grounds leading to increased use of Cascade View Drive.

- Investigate the possibility of constructing a freeway ramp connection from a future SR 522 extension directly into the fairgrounds.
- Considering parking options, such as satellite parking with bus and vanpool shuttle service.

ADJACENT CITIES

The City recognizes the importance of coordinated and strong interjurisdictional action because transportation impacts do not stop at local boundaries. The City works closely with neighboring cities to address transportation issues. These neighbors adopt goals and policies that directly impact the Monroe community. In developing this plan, analysis was undertaken to ensure that all transportation system improvements are compatible with neighboring jurisdictions.

The City of Snohomish is 8 miles to the northwest, Woodinville is 13 miles to the west, Sultan is 8 miles to the east, and Duvall is 10 miles south of the City. Unincorporated King and Snohomish Counties immediately surround Monroe, but the policies of these other nearby cities may also impact transportation decisions in Monroe.

SPECIFIC PLANNING EFFORTS

Ongoing planning efforts that may influence the City's Transportation Element are currently in various stages of completion. As these plans continue to develop, close coordination between the responsible jurisdictions and the City is necessary to ensure consistency. These efforts include:

- WSDOT's *Washington Transportation Plan (WTP)* provides a blueprint and strategies to guide decisions and investments needed to develop Washington's transportation system to serve its citizens', communities', and economy's future needs, at the same time safeguarding the environment. This update is data-driven, analytically grounded, and organized around key issues that provide decision-makers with solid bases for making choices, particularly about investments to the system. Many investments have multiple benefits across multiple issues. For example, ramp meters can improve system efficiency, reduce delay, and improve safety. The update for 2007 - 2026 was completed in the summer of 2006. The draft plan, also, is expected to be ready for public comment in the summer of 2006.
- Community Transit's *Transit Development Plan (2004 - 2010)* identifies the improvements that are funded in the Plan. Additionally, the Plan includes a list of needs that community stakeholders would like to see addressed that are much greater than the forecast funding will support. These are discussed in more detail in Chapter 6 (Transit).
- WSDOT's *US 2 Route Development Plan (RDP)*: The RDP will identify transportation and safety problems on US 2 between the cities of Snohomish and Skykomish and recommend improvement projects that address these problems. The Plan will then be

incorporated into the PSRC's Destination 2030 and the Washington Transportation Plan for prioritization and funding. WSDOT is expected to deliver a final plan by spring 2007.

- WSDOT's *SR 522 Corridor Improvements*: When all planned projects on SR 522 are completed, drivers will have two lanes in each direction (including widened bridges), two new interchanges, medians separating opposing directions of traffic, and numerous safety improvements.
- WSDOT's *US 2 – 179th Avenue to Woods Creek Bridge*: This project modified US 2 through Monroe by constructing medians and traffic curbs to replace the two-way left-turn lanes. Intersections are wider to allow u-turns. The traffic signals are now coordinated with each other and with the railroad crossings to improve traffic flow. Commuters are able to monitor traffic conditions using the new traffic cameras.
- Puget Sound Regional Council's *VISION 2020*: The PSRC is updating the regional long-range growth management, economic, and transportation strategy for the central Puget Sound region. *VISION 2020* was last revised in 1995 and is being updated to provide a comprehensive regional approach to manage growth through the year 2040. The strategy covers King, Kitsap, Pierce, and Snohomish counties and their respective cities and towns.
- Puget Sound Regional Council's *1995 Metropolitan Transportation Plan (MTP)*: The PSRC updated the MTP in 2001 with the adoption of *Destination 2030*. *Destination 2030* defines regional facilities and services both functionally and geographically. A facility or service is part of the MTP if it provides access to any activities crucial to the social and economic health of the central Puget Sound region. Facilities that weave parts of the region together by crossing county or city boundaries are critical to the MTS. *Destination 2030* includes a project that will add general purpose capacity on US 2 from Everett to Skykomish. This need is being examined as part of the WSDOT US 2 Route Development Plan.

RELATIONSHIP TO OTHER COMPREHENSIVE PLAN ELEMENTS

The Transportation Element is an integral part of the Comprehensive Plan. The Element provides for the transportation system necessary to support the land use (commercial and residential) pattern described in the Land Use and Housing Elements. Specific transportation goals and policies work to maintain and preserve the community's character and natural features presented in the Natural Environment and Parks and Recreation Elements while providing for mobility. The Transportation Element strives to support important aspects of the Economic Development Element by enabling goods, services, customers, and employees access to Monroe businesses. Finally, transportation policies in the Element provide the foundation for the transportation projects identified in the Six-Year Capital Facilities Plan in the Capital Facilities Element.

PUBLIC INVOLVEMENT

The City took several steps to involve the public in soliciting review and affirmation of the transportation plan. The public involvement was tied to the environmental process which provided several opportunities for public comment. The City also formed a Monroe Transportation Commission (MTC) to provide guidance in specialized areas of transportation. The MTC was composed of Monroe residents with different areas of expertise, from neighborhood needs to non-motorized travel. The Planning Commission also reviewed key parts of the plan as it was developed.

The Planning Commissioners and the MTC members were valuable in shaping the plan and advising on behalf of their constituents. All workshops of the MTC and the Planning Commission Public were open to the public for comment. In September 2005, the City held a public hearing on scoping of the Plan and in May 2006 a workshop was held with the City Council. The City shared information about the plan with community organizations and made presentations when asked.

The MTC and the Planning Commission reviewed the draft transportation plan document during August and September 2006. The Planning Commission held a public hearing on the draft SEIS/Plan document in August, 2006 and issued its recommendations to the City Council in November 2006. The City is also a member of the Corridor Working Group and has coordinated with the US 2 Route Development Plan throughout the year, attending the Open House in June 2006 and the two day design charette in August 2006.

ORGANIZATION OF THE PLAN

Chapter 2 provides the *environmental review* of the transportation element. The *goals and policies* that guided the development of this plan are described in Chapter 3. The next three chapters are organized according to the three primary transportation system types in Monroe: the *street system* (Chapter 4), the *non-motorized system* (Chapter 5), and *transit* (Chapter 6). Each chapter contains a needs assessment and discussion of the future system, including proposed projects.

The remaining chapters cover subjects pertaining to all three system types. Chapter 7 discusses *funding sources* that can be used to finance future network improvements. Chapter 8 identifies a *monitoring strategy* to ensure progress is made towards implementing the plan. Chapter 9 contains the *Transportation Improvement List* summarizing project priorities and cost estimates.

City of Monroe
Monroe Comprehensive Transportation Plan

Environmental Fact Sheet

Project Title	City of Monroe Transportation Plan and Element
Proposed Adoption Date	The Monroe Planning Commission and Transportation Commission held a public hearing on the Draft Transportation Plan and Element and the EIS Supplement on August 28, 2006. Following this, the Commissions prepared findings and recommendations to the City Council. The Council action will be adoption of the Plan and Element following a public hearing.
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Environmental Documents Adopted for SEPA Compliance	Monroe Comprehensive Plan 1994-2012: DEIS and FEIS, 1994 Monroe Comprehensive Plan 2005-2025: DEIS and FSEIS for the 2005 Update to the Land Use Element, 2005 Amendments SEPA Reviews, 1999 and 2000 Monroe North Kelsey Sub Area Plan Planned Action FSEIS, Volume 1, 2004 Milwaukee Hill Final Environmental Impact Statement.
Date of This Final Supplement	November 2006
Comment Period	August 14, 2006 for 30 days
Supplement Distribution	This Supplement has been distributed to agencies, organizations and individuals indicated in the distribution list. Copies of this document are available for viewing and/or purchase at City Hall.

CHAPTER TWO

ENVIRONMENTAL REVIEW

INTRODUCTION

This chapter provides an environmental review of the proposed City of Monroe 2006 Transportation Plan and Comprehensive Plan Element. This document is a Supplemental Environmental Impact Statement; it is organized in similar fashion to an environmental impact statement (EIS). At the beginning of this chapter, there is a description of the affected environment. Next, there is a summary of the Preferred Alternative and a description of its direct, indirect, and cumulative impacts. In conclusion, this environmental review identifies mitigation measures for the Preferred Alternative.

The environmental review is being conducted under the provisions of the State Environmental Policy Act (SEPA). The City issued a Declaration of Significance on July 12, 2005, listing the environmental elements to be addressed. The scoping notice is available from the City. The City conducted a public scoping meeting on September 19, 2005. The written and oral comments from the scoping period were used to shape this review. This document is a Supplemental EIS (SEIS) building on the previous environmental record listed on the Fact Sheet.

A public hearing was held during the 30 day public comment period starting August 14, 2006. The City's Transportation and Planning Commissions considered the comments and produced a Preferred Alternative for City Council consideration. The Preferred Alternative blends components of the alternatives to produce a comprehensive transportation package. The Final Supplemental Environmental Impact Statement (FSEIS) addresses the environmental impacts associated with the Preferred Alternative and responds to the written and oral comments received during the public review. **Appendix A** contains the response to comments.

AFFECTED ENVIRONMENT

This section discusses the affected environment of the City of Monroe and its urban growth area within which the proposed transportation plan applies. There are two types of environments that could potentially be impacted by the alternative selected. These are the natural and the built environments. In the natural environment, impacts are analyzed for earth and soils, and for surface water, air quality and water quality. In the built environment, impacts are analyzed for land use, transportation, air quality, noise, and visual elements.



The natural environment is a complex system of inter-related components including air, water, soils, plants, and animals. All of these systems are affected by human activity. The built environment will encompass all areas located within the City limits, including buildings, structures, and roadways.

EARTH AND SOILS

The City of Monroe contains a wide range of soil types and hydrologic systems. In general, the lower valleys, floodplains, and area sloping from the river valley up to the Plateau are characterized by a mix of recessional outwash gravel deposits and glacial till. Outwash deposits are found primarily in the Rivmont Heights/Old Owens Road vicinity and along the slopes between the river valley and the Robinhood Park/Wagner Lake Plateau. The alluvium deposits most commonly found underlying most of the City (in the river valley) absorb water at a rapid rate and provide most of the recharge to Monroe's aquifer system.

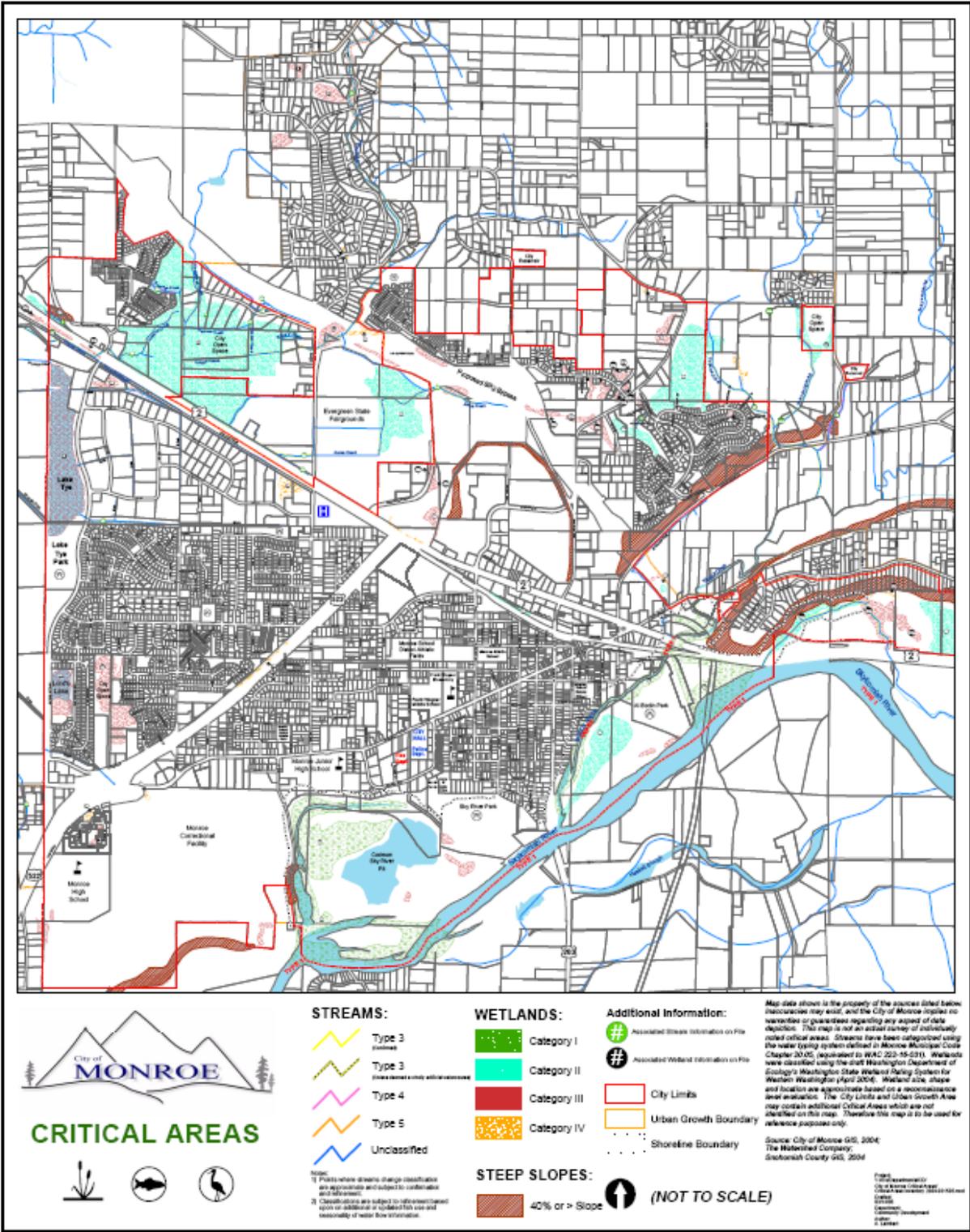
Glacial till is found on both sides of SR522 west of the Reformatory and east to the foot of Bald Hill. These are generally compact tills, which are generally impervious. There are sites where the underlying surficial geology has provided a resource for excavation and quarry activity. The Recessional Outwash deposits are the principal source of sand and gravel in the area. Designated geological hazard areas under the provisions of the City's critical areas regulations are shown in **Figure 2-1**.

WATER

The groundwater resources found in and around the City of Monroe consist of layers of discontinuous aquifers surrounded by zones of lower permeable sediments. This pattern was created by the advance and retreat of four glacial periods that shaped the surface of the land by depositing coarse sands and gravels throughout the region. These layers provided the structure for many of Monroe's aquifers.

Drainage occurs within three sub-basins of the Snohomish River drainage basin: French Creek, Woods Creek, and the Lower Skykomish River. Woods Creek drains southwesterly into the Skykomish River, which flows into the Snoqualmie River to form the Snohomish River just west of the city. French Creek and other drainage ways flow south and west out of the planning area and into the Snohomish River south of the City of Snohomish. Designated flood hazard areas under the provisions of the City's critical areas regulations are shown in Figure 2-1.

Figure 2- 1. Critical Areas



PLANTS AND ANIMALS

Natural vegetation in Monroe originally consisted of vine maple, cedar, and Douglas fir on the floodplain and in valleys with surrounding hillsides covered by more substantial stands of timber. Most of the planning area today is comprised of urbanized uses. The rural area outside of the City's Urban Growth Area (UGA) is characterized by rural residential and small agricultural uses. Remaining natural habitats include a variety of habitats that include wetlands, riparian forests, and pasture grasslands.

Typical wildlife species found in the area include high concentrations of wintering raptors associated with the abundance of wintering waterfowl and small mammals in the agricultural areas. The federal and state threatened bald eagle and the endangered peregrine falcon winter perch and hunt along the Skykomish River, however, no nests or perches are known to exist within the City of Monroe or urban growth area according to the Washington State Department of Fish and Wildlife. Many species of waterfowl use open water in the wetlands and areas adjacent to the river for migratory stops, nesting, feeding, and breeding. Pasturelands are commonly used as feeding areas by gulls, waterfowl, raptors and other predatory birds. Black-tailed deer, black bear, red fox, opossum, and skunk can be found in the rural and forested areas surrounding Monroe. Beaver, otter, raccoon, and muskrat are common along the waterways. The higher elevations provide good habitat for grouse, cottontail rabbit, and pheasant.

The Skykomish River and its major tributaries (including Woods Creek) provide spawning grounds for several types of anadromous fish including Coho salmon, Chinook salmon, Chum salmon, Pink salmon, Steelhead trout, Coastal Cutthroat trout, Bull trout, and Dolly Varden trout. Chinook salmon and Bull trout were listed as endangered and threatened under the federal Endangered Species Act in March 1999 and November 1999, respectively.

LAND USE

With a population of 17,490 (City of Monroe 2006), Monroe is the largest city located along US 2 between the cities of Everett and Wenatchee. Monroe is located in southeastern Snohomish County on the north bank of the Skykomish River. The City of Everett is 17 miles northwest of Monroe on US 2, and the City of Seattle is about 35 miles southwest. The population is expected to grow to 26,590 by 2025.

Monroe contains areas that are relatively flat next to the floodplain of the Snohomish River and the valley. The topography rises several hundred feet in the northern part of the City. Development along US 2 includes businesses, motels, restaurants and three shopping centers anchored by large grocery stores. Some of the newer restaurants that have been recently constructed in Monroe include Canyons and Red Robin. On the north side of US 2, the Galaxy 12 Movie Theater is part of the latest construction with other new retail. Some of the newer retail includes Chain Lake Center, All Star Fitness, Chain Lake Self-Storage, Jiffy Lube, Kid's Country, Cold Stone Creamery, and Garlic Jim's Famous Gourmet Pizza. Other retail businesses are expected to be constructed within the North Kelsey development area. The Fryelands Industrial Park is located to the west of downtown.

Employment. The Monroe Urban Growth Area (UGA) contained approximately 9,150 employees in 2005. The single largest employment category in Monroe is government jobs, which comprise over 50 percent of the labor force. Many of these public employees work at the State Correctional Facility, School District offices, City offices, and local government offices. Valley General Hospital is also a major employer. The second largest employment category is retail trade and services. The majority of this employment is located in the commercial corridor along US 2 and the downtown area. Both government and retail jobs are expected to increase over the 20-year planning period.

Zoning and Comprehensive Plan Designations. The City has designated lands from very low to high density residential, commercial (retail and office), industrial, parks and open space, public facilities, and regional land uses. The downtown commercial zone is a mixed-use district allowing both commercial and residential uses. State highways and their right of way are designated Special Regional Use.

AIR QUALITY

Air quality in the Everett/Marysville area (which includes the City of Monroe) has been either “good” or “moderate” according to the Puget Sound Clean Air Agency (2003). The measured PM10 concentrations at Everett/Marysville area have been well below the Ambient Air Quality Standards. The region’s overall air quality has maintained a level consistent with previous years, despite the increase in the number of vehicles, traffic congestion, and the average vehicle miles traveled.

The region continues to benefit from improved technologies that reduce vehicle emissions, the reduction of industrial emissions, decreases of wood burning in fireplaces, and the elimination of leaded gasoline. Air quality modeling determined that such concentrations are well below the guidelines. (Puget Sound Clean Air Agency 2003)

The general air quality within the City limits is most affected by vehicular trips on US 2, SR 522, and the City streets. The second level of emissions is from industrial and commercial land uses.

NOISE

Noise in the City of Monroe is mainly dominated by traffic on local roads and US 2 as well as those noises commonly associated with commercial and industrial land uses. Noise emanating during construction of new roadways and other transportation projects is not expected to be permanent.

SUMMARY OF THE PREFERRED ALTERNATIVE

The Preferred Alternative contains a comprehensive package of street, transit, and non-motorized projects. These projects were selected from the scenarios evaluated in the DSEIS.

STREETS

In order to address the growing traffic volumes and congestion levels on City streets, the DSEIS examined three alternative roadway improvements scenarios:

- **2025 Baseline** - Consists of the existing street system plus projects programmed and, at least, partially funded in the City's Transportation Improvement Program and in the State Highway Program. These projects have a reasonable likelihood of being implemented during the next 20 years.
- **Local Projects** - Adds city street improvements in congested areas. Most of these projects include addition of traffic control or channelization at intersections.
- **Regional Transportation Projects** - Adds two major regional roadway projects that are under the control of the WSDOT and are included in the State's long-range transportation plan.

The Preferred Alternative combines these scenarios into a comprehensive package of street improvements. The street projects in the Preferred Alternative are described in Chapter 4. The projects include 11 new traffic signals, 3 roundabouts, and 3 intersection channelization changes. Also included are 4 new street connections and 4 upgrades to existing collector and arterial streets. The Preferred Alternative also includes the eastern portion of the Monroe Bypass and the widening of US 2 between N Kelsey Street and Fryelands Boulevard. None of these regional projects are funded.

NON-MOTORIZED AND TRANSIT MODES

Various non-motorized (bicycle and pedestrian facilities) and transit strategies are contained in the Preferred Alternative. Bicycle and pedestrian facilities are discussed in detail in Chapter 5. These improvements primarily focus on extending the sidewalk network, trail system and bicycle facilities. The transit recommendations in Chapter 6 are focused on adjusting and expanding transit service, creating additional park-and-ride facilities, considering a new transfer station in the North Kelsey area and encouraging vanpools.

IMPACTS COMMON TO ALL ALTERNATIVES

The following impacts are common to the Preferred Alternative and other alternatives evaluated in the DSEIS.

EARTH AND SOILS

Clearing and grading during road construction will increase the potential of erosion. In certain locations, fill will need to be tested and verified that it is adequate to provide structural support.

LAND USE

Under all of the alternatives, new residential, commercial, industrial, and institutional construction and development would continue. As new development is occupied, it would result in higher levels of activity and transportation demand in the surrounding area. Depending on the types of uses, these impacts could be experienced at any time during the week or year. The impacts will differ between the different types of development. For example, for new subdivisions the expected impacts would be the need to upgrade an intersection to accommodate increased traffic volumes that come from the addition of new residents. In another example, the impacts would be greater for a new restaurant or flagship department store. Those types of impacts might include the need for increased parking facilities, major intersection and roadway improvements, possibly widening lanes, and increased environmental protection. And, lastly, the impacts of infill commercial development in the downtown core could be a more sustainable development pattern with potentially reduced vehicle miles traveled and the increased ability to use non-motorized transportation instead of driving further towards the outskirts of the City limits for shopping purposes.

Change would occur mostly in the northern part of the City, along US 2, and in and around commercial areas of the City, though some residential development would occur on a limited scale. Direct, construction-related impacts would include dust, traffic delays, noise, surface water runoff, and general inconvenience. No significant unavoidable adverse land use impacts are anticipated for the alternatives.

Major road or intersection widening could require acquisition of additional right of way resulting in impacts to adjacent properties.

AESTHETICS

The construction of larger, regional transportation projects, such as the Monroe Bypass project and the US 2 widening would change the visual character along the transportation corridors, impacting views from the corridors and the streetscape itself. The design standards used in other areas may be different than existing street conditions in areas transitioning from suburban or rural levels of development to urban development. Urban streets typically include wider lanes, more lanes, medians, curbs, landscaping, and sidewalks, whereas rural standards may have fewer traffic lanes, more open surface water systems (ditches), and soft shoulders. These different street standards impact the streetscape and provide a distinct visual experience to the user.

The City's adopted design standards and guidelines, together with the City's development regulations, are adequate to mitigate impacts related to new construction of transportation facilities and associated infrastructure.

TRANSPORTATION

Traffic and congestion will increase as a result of future population and employment growth with or without the recommended actions unless the declines in the levels of service were severe enough to require a reduction in development activity. Construction traffic associated with redevelopment and new development within the City of Monroe will have an impact on traffic circulation and could limit access to existing businesses. These impacts are temporary

in nature and minimal if managed effectively. Temporary noise and air quality impacts would be associated with construction. No other unavoidable adverse transportation system impacts have been identified.

AIR QUALITY

Three agencies have air quality jurisdiction within the City limits: the United States Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), and the Puget Sound Clean Air Authority (PSCAA). EPA and Ecology have established regulations that are designed to limit emissions from air pollution sources and to minimize concentrations of pollutants in the air. Ecology's air quality regulations are more than adequate to mitigate temporary impacts related to new roadway construction. No significant unavoidable adverse impacts are expected from the alternatives.

NOISE

The City of Monroe has adopted by reference Snohomish County's Noise Ordinance (Snohomish County Code Chapter 10.01), which establishes allowable noise levels. Temporary construction activities are excluded from the county noise regulation. In addition, vehicles on public roads are excluded.

WSDOT regulations require consideration for traffic noise abatement for future roadway improvements built using state or federal funds. These traffic noise regulations will minimize potential noise impacts caused by regional population growth and traffic increases. No significant unavoidable adverse impacts are expected from the alternatives.

CRITICAL AREAS

Urbanization would continue to impact watersheds during road construction activities. Development puts greater pressure on the aquatic ecosystems that support fish populations through increased water temperatures, sedimentation, peak flows, erosion, scour, pollution, stream bank armoring, and channelization, as well as reduced low flows and riparian and wetland areas.

Fish and wildlife habitat conservation areas would be protected as required under the City's Critical Areas Ordinance (CAO) and Shoreline Master Program (SMP). The intent of the critical areas regulations is to achieve "no net loss" of the ecological functions and values of critical areas. The purpose of the SMP is to safeguard the public interest in the preservation and conservation of the shoreline jurisdiction and no net loss of ecological functions there. The SMP designates a range of shoreline environments that are supportive of compatible land uses to provide the greatest protection to the most sensitive shoreline areas in the City and to provide for areas that allow for more intensive development to occur in areas that can support them.

Over time, a reduction in the quality and quantity of aquatic habitat in the City would occur as current and future projects are developed.

- Direct impacts (e.g., loss or conversion of aquatic habitat to either unsuitable or less suitable types) to fish and fish habitat can be potentially avoided or minimized by maintaining buffer requirements for salmon bearing streams and the timing of instream work window periods, which protect fish, streams and/or adjacent vegetation.

- Indirect impacts would result from increased storm water runoff from impervious surfaces (e.g., roads, parking lots, and roofs). Impervious surfaces prevent water from soaking into the ground and as impervious surfaces increase, so do the volume, peak flows, and velocity of storm water runoff into rivers and streams. Increased stream volume, peak flows, and velocity cause greater erosion and sedimentation, scour out large woody debris important for fish habitat, disrupt spawning and resting areas, and increase velocities through culverts making fish passage more difficult. In addition, storm water may contain contaminants from impervious surfaces. For most new growth that creates new or expanded impervious surfaces, current state and City of Monroe regulations require the construction of storm water treatment facilities. The regulations require that storm water be treated and detained (if infiltration is infeasible) before it is released to local streams. These regulations help to minimize detrimental effects on aquatic species and their habitats, but they may not completely eliminate the potential impacts from development and urbanization.

UTILITIES AND PUBLIC SERVICES

The transportation projects contained in the alternatives may require the relocation of existing utilities. The maintenance and operations of these facilities may also increase municipal service costs.

IMPACTS SPECIFIC TO PREFERRED ALTERNATIVE

This section identifies the environmental impacts for the Preferred Alternative. The impacts are summarized into a matrix format, shown in **Table 2-1**. The draft SEIS contains impacts specific to the draft alternatives.

Table 2-1. Impacts of Preferred Alternative

Environmental Elements	Preferred Alternative
Transportation	The street projects would increase the system’s capacity to accommodate the anticipated increased traffic demand at key locations. Each of the collector and arterial intersections under City control would operate within the City’s adopted Level of Service standard. New street segments would provide better connectivity for vehicles and people within Monroe. The Monroe Bypass and US 2 widening projects would provide substantial new capacity to the state highway system and improve regional linkages to City streets. The projects would improve the levels of service on US 2 to closely match the City’s adopted standards. The impacts of the state highway projects on US 2 will be addressed in subsequent environmental reviews.
Land Use	The street projects could result in land acquisition for rights of way. The additional street connectivity would provide new development opportunities for some properties.
Visual	Visual impacts would be a function of the location and characteristics of the environments in the vicinities of the projects. These impacts will be addressed in subsequent environmental reviews. In general, the larger City and regional street projects could involve substantial removal of existing vegetation, including forest cover. It is also expected that the earth grading and excavation would change the topography along most of the bypass corridor.
Earth and Soils	City capital projects would have temporary disruptions to soils during construction. The impacts of the regional improvements will be addressed in subsequent environmental reviews.
Air Quality	The City street improvements would potentially create better air quality for congested areas. Generally these benefits would be concentrated at a few locations. The air quality impacts of the regional improvements will be addressed in subsequent environmental reviews.
Noise	Noise from the projects could arise from temporary construction activities. In some neighborhoods, there may be a slight increase in ongoing traffic noise. Noise impacts of the regional projects will be addressed in subsequent environment reviews.
Surface Water and Water Quality	The anticipated capital projects would result in short term sedimentation effects related to construction. Generally these impacts would be concentrated at a few locations. The impacts of the regional improvements will be addressed in subsequent environmental reviews.
Critical Areas	The effects of the local and regional projects on critical areas would be evaluated at a project-level. The critical areas would be protected by the City’s CAO and SMP.

CUMULATIVE IMPACTS

This section describes the potential cumulative impacts of the Preferred Alternative. Cumulative impacts are the impacts on the environment resulting from the addition of the incremental impacts of past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions. Cumulative impacts can result from individually minor but collectively substantial actions occurring over time.

Cumulative impacts and benefits would include increased urban activity related to the projects implemented under the Preferred Alternative. These could include better traffic circulation, increased mobility, and improved pedestrian activity. Under the Preferred Alternative, projects would be phased over time related to land development. It is also reasonable to assume that some level of development will occur (both public and private actions), with resulting impacts mitigated through permitting.

The Preferred Alternative would produce cumulative benefits for many elements of the environment in addition to temporary cumulative impacts. Potential cumulative benefits are described below by element of the environment.

LAND USE

Cumulative growth in the North Kelsey planning area and other parcels near US 2 could result from development of vacant land and redevelopment of underutilized sites and structures. Localized intensification of land use would occur consistent with adopted plans, policies, and regulations. Displacement of some existing land uses could occur in connection with establishment of new uses and facilities. Increased transit service would improve access to and mobility within major regional activities centers, designated urban centers, and major regional employment centers.

TRANSPORTATION

Historically, the vehicle miles traveled (VMT) in the Puget Sound region have continually increased, including Monroe. While regional VMT would continue to increase, the Preferred Alternative would have a positive effect on the transportation system due to actions that improve the level of service and reduce congestion.

US 2 mobility would improve with the implementation of regional highway projects included in the Preferred Alternative. The regional projects, such as the Monroe Bypass and US 2 widening, would also provide cumulative benefits to travelers passing through Monroe.

The transit and non-motorized projects in the Preferred Alternative would improve mobility by providing viable travel choices to Monroe residents and employees. These actions could be integrated into a regional system of transit, pedestrian, and bicycle facilities.

AIR QUALITY

Substantial progress has been made in reducing air pollutant emissions from motor vehicles and improving air quality since the 1970s. The Preferred Alternative would produce improved traffic efficiency and congestion reduction that provide benefits to air quality. The Preferred Alternative also recommends improvements to be made to transit accessibility and

non-motorized facilities. These actions could lead to vehicle trip reduction and related air quality benefits.

NOISE

The Preferred Alternative could contribute additional incremental noise and vibration impacts associated with the new bypass location and potential for increased vehicle flow.

CRITICAL AREAS

The City's Critical Areas Ordinance, Shoreline Master Program environmental goals, policies and regulations, if correctly implemented, would limit the cumulative impacts to ecosystems. Extensive improvements to public transportation would be more supportive of land use policies that facilitate protection and preservation of important ecosystems and habitats in the City of Monroe and neighboring jurisdictions by encouraging compact urban development within the City's urban growth area.

VISUAL

In most cases, the City's land use forecasts would include redevelopment with larger buildings and greater visual scale. These buildings would generate more pedestrian traffic and streetscape redevelopment. The City's Comprehensive Plan Capital Improvement Projects and Facilities would be planned and designed to be visually compatible with this new development. Cumulative impacts under the Preferred Alternative could be significant, but they could provide a visual improvement from the perspective of some viewers.

In general, cumulative impacts for specific projects under the Preferred Alternative would need to be considered in more detail during project-level planning and environmental review. And, overall cumulative impacts (benefits) are anticipated to be positive, since no adverse impacts were identified in this analysis.

MITIGATION

The following proposed goals and policies would help to mitigate the potential environmental impacts of growth on the transportation system.

TRANSPORTATION

Transportation Goal 2 and Policies TP 2.1 through TP 2.14 (refer to Chapter 3) focus on the impacts of development and transportation facilities and services needed to support that development. Specifically, two new policies have been drafted that address how the City will support traffic improvements to arterial and collector routes to minimize the effects of neighborhood cut-through traffic and how the City will examine the potential to implement a traffic calming program that provides opportunities to improve safety and neighborhood quality. Prior to implementation, any traffic calming program shall require a technical analysis of traffic needs and appropriate treatments, combined with an evaluation of staffing and capital budget requirements.

In general, impacts for the Preferred Alternative will be mitigated at the project level according to the City's adopted regulations and policies, including best management practices (BMPs).

Additional mitigation measures are outlined below:

AIR QUALITY

- Dust suppression containment through plastic sheeting, watering dry roads and work areas, and suspending work during high wind periods.
- Transportation demand management (TDM) strategies to enhance the overall transportation network and reduce automobile operations.

LAND USE/HOUSING

- Encourage increased pedestrian activity within the core areas of the downtown that would allow for people to walk more safely and frequently. Measures such as the location of parking, pedestrian amenities, and linkages to surrounding neighborhoods would enhance the pedestrian experience.
- Large scale retail stores or mini-storage facilities should have parking and pedestrian facilities integrated with well-marked, visible, and accessible connections to existing sidewalks and trails.

AESTHETICS

- Minimize potential view impacts by designating view corridors along major intersections, landmarks, and other pedestrian appropriate locations. Design individual projects to maintain corridors through building setbacks or other measures to protect properties impacted by new transportation projects.
- Consider lighting limits, landscape buffers, low-sodium lighting, and full cut-off lighting fixtures for parking lots.
- Consider public and private measures and investments to expedite the placement of utility lines underground.

NOISE

- Employ the use of sound walls and sound absorptive pavement to dampen the effects of vehicular noise.
- Encourage construction techniques and equipment that minimize noise.

CONCLUSIONS

Under the Preferred Alternative, air quality and water quality could decline as growth and development increases. Noise is anticipated to increase temporarily as new transportation projects are constructed. More energy sources will likely be needed, and conservation strategies will likely need to be implemented regardless of which transportation alternative is selected.

Transportation facilities contribute more than any other land use to the transformation of forested areas to paved areas. Roads have been identified as a key stressor in urbanizing landscapes.

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The Preferred Alternative would result in road construction and, therefore, could be expected to result in effects on the ecological functions of critical areas. Potential impacts to wetlands, fish habitats and other critical areas would be mitigated per the City's Critical Areas Ordinance (CAO) and Shoreline Master Program (SMP) policies and regulations.

The Preferred Alternative shows increased potential for vehicle miles and vehicle hours traveled, which could be expected to lead to greater pressure for road construction (at a minimum, construction of local streets to provide access to new homes and businesses). These actions would have associated risks of adverse environmental effects due to increased impervious surfaces and increased potential for run-off. However, the Preferred Alternative does seek to optimize and manage the use of transportation facilities and services, manage travel demand, promote environmental objectives; support transit- and pedestrian-oriented land use, and provide expanded mobility options.

REFERENCES

- City of Monroe, *City of Monroe Comprehensive Plan 2005-2025*, December 2005.
- City of Monroe, *City of Monroe Comprehensive Plan 1994-2012*, December 1994.
- City of Monroe, *City of Monroe Comprehensive Plan Final SEIS*, August 1994.
- City of Monroe, *North Kelsey Sub Area Plan Planned Action FSEIS*, March 2004.
- City of Monroe, *Update of Comprehensive Plan Land Use Element FSEIS*, October 2005.
- City of Monroe and Entranco, *Final Traffic Improvement Study*, July 2004.

CHAPTER THREE

Goals and Policies

Transportation goals and policies establish the framework for realizing the City's vision of its transportation system. Policies provide guidance for the City, other governmental entities and private developers, enabling the City to achieve its goal of providing adequate public infrastructure to support its needs and priorities in accordance with the City's Comprehensive Plan. The policy framework presented below is a guideline, which the City will use to evaluate individual projects and address its infrastructure needs.

The overall vision of the plan is to improve transportation mobility in the City of Monroe. The following seven goals and related policies articulate how transportation fits within the overall vision for the City of Monroe.

Goal TG1 - Help relieve traffic congestion and ensure safe, barrier-free mobility for all members of the community.

- TP1.1 - Improvements to existing street networks should be planned to evenly distribute through-traffic to arterials and reduce the amount of through-traffic on streets that are not classified as arterials.
- TP1.2 - Land use patterns that facilitate multi-purpose trips and reduce the quantity and length of trips by single-occupancy vehicles shall be encouraged.
- TP1.3 - Avoid and mitigate adverse impacts of transportation facilities and services on designated critical areas.
- TP1.4 - Discourage road construction on slopes greater than 15 percent and other environmentally sensitive areas.
- TP1.5 - Encourage the maintenance and preservation of existing transportation facilities over the construction of new ones.
- TP1.6 - Monroe will work with WSDOT to actively promote and encourage completion of SR522 improvements and the Monroe US 2 Bypass (Monroe Bypass) in the shortest time period possible.
- TP1.7 - The design and management of the street network should seek to improve the appearance of existing corridors and, when developing new streets, should include construction of sidewalks.
- TP1.8 - Whenever the City reconstructs or performs extensive rehabilitation work on a street not having sidewalks, pedestrian facilities of some type should be constructed.
- TP1.9 - Where appropriate, landscaping measures should be implemented to enhance the appearance of street corridors. Without impairing street capacity, safety, or structural integrity, existing trees along street right of way should be conserved.

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TP1.10 - Develop a transition plan and design standards that address ADA requirements in accordance to Title II.

Goal TG2 - Develop level of service (LOS) and design standards that are consistent with surrounding jurisdictions and ensure that transportation facilities and services needed to support development are available concurrently with the impacts of such development in accordance with RCW 36.70A.

TP2.1 - Maintain LOS D or better at all non-state highway arterial intersections within the City of Monroe during the afternoon peak hour (PMPH). Maintain PMPH LOS C or better on all collector and local street intersections. The City Engineer has discretion to ask for analyses during other time periods.

TP2.2 - Work with WSDOT to maintain LOS D for state highway segments, including intersections with streets.

TP2.3 - Promote a working relationship with regional planning agencies, including provisions for interlocal agreements to address traffic mitigation and standardized methodologies for transportation systems.

TP2.4 - Work with surrounding communities to establish public education programs and land use strategies to encourage public transportation usage.

TP2.5 - Coordinate land use and public works planning activities with an ongoing program of long-range financial planning, in order to conserve fiscal resources available to implement the Transportation Improvement Program (TIP).

TP2.6 - Participate in the Countywide Transportation Demand Management (TDM) program administered by Snohomish County.

TP2.7 - The City shall not issue development permits where the project requires improvements to the Streets that exceed the City's ability to provide these in accordance with the adopted level of service standards, unless the developer provides these necessary improvements to transportation facilities and services, or strategies to accommodate the impacts of development. They must be in place within six years of the development.

TP2.8 - Actively solicit the State and Snohomish County to program and construct those improvements to state and county arterial systems that are needed to maintain the level of service standards adopted in Monroe.

TP2.9 - Require developers to construct streets directly serving new development, and pay a fair-share fee for specific off-site improvements needed to mitigate the impacts of the development.

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- TP2.10 - Until such time as the City of Monroe adopts a GMA based traffic mitigation fee system, collect traffic mitigation fees based on development impacts identified during the State Environmental Policy Act (SEPA) review.
- TP2.11 - If intersections or street segments are identified as non-compliant with adopted level of service (LOS) standards, the equitable proportional share method of traffic concurrency mitigation shall be an available option for the development. Where the cost of constructing the necessary mitigation improvements is less than twenty percent (20%) of the development cost, the development must construct the improvements necessary to achieve compliance with the LOS standards prior to project approval.
- TP2.12 - Support traffic improvements to arterial and collector routes to minimize the effects of neighborhood cut-through traffic.
- TP2.13 - Implement neighborhood traffic calming, where appropriate, to direct through traffic to arterials classified and designed for that purpose.
- TP2.14 - Examine the potential to implement a traffic calming program that provides opportunities to improve safety and neighborhood quality. Prior to implementation, of any traffic calming program, conduct a technical analysis of traffic needs and appropriate treatments, combined with an evaluation of staffing and capital budget requirements.

Goal TG3 - Promote safe and efficient bicycle and pedestrian movement when improving streets and highways.

- TP3.1 - Design new roadways, sidewalks, trails, bicycle paths, and other public circulation areas will be designed to appropriate standards.
- TP3.2 - Design new local access streets will be designed to provide safe movement for pedestrians, bicycles, and automobiles.
- TP3.3 - Provide safe crossings for pedestrians and bicyclists across major conflict points along US 2, SR 522, SR 203, and the railroad tracks.

Goal TG4 - Create commercial areas that are pedestrian, bicycle, and transit oriented.

- TP4.1 - Integrate parking facilities in the downtown area with pedestrian, bicycle and transit circulation.
- TP4.2 - Develop a comprehensive network of bicycle and pedestrian facilities to provide transportation mode alternatives to employment centers and shopping areas.
- TP4.3 - Develop design standards for pedestrian, bicycle, and transit facilities.
- TP4.4 - Preserve unimproved public right of way ,when appropriate, to assure they are available if needed in the future for development of the city's transportation

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system for development of ped and bicycle network connecting neighborhoods, employment, shopping, and transit centers.

- TP4.5 - Develop site design criteria, such as reduced setback requirements and through-easements for pedestrian and bicycle use to enhance pedestrian access to buildings and provide direct paths to transit facilities and shopping centers.
- TP4.6 - Provide for a network of bike paths and pedestrian facilities to connect residential areas with downtown and other commercial areas.
- TP4.7 - Support the construction of downtown pedestrian amenities through public improvements, sign regulations, and development standards.
- TP4.8 - Give priority to the maintenance of public and private improvements commensurate with downtown's role as the focal point of the community.

Goal TG5 - Encourage local and regional public transit service that contributes to the relief of traffic congestion, promotes energy conservation, and enhances mobility for the all members of the community.

- TP5.1 - Provide disabled accessible pedestrian walkways to bus stops and encourage CT to construct passenger shelters at bus stops.
- TP5.2 - Support programs to encourage ridesharing and other Transportation Demand Management (TDM) measures designed to reduce demand for roadway space and reduce peak-period auto traffic.
- TP5.3 - Consider the implementation of a Transportation System Management (TSM) investment as an economic alternative to traditional capacity-increasing transportation methods.
- TP5.4 - Ensure that development, through the established permit process, is designed to be compatible with public transportation.
- TP5.5 - Adopt parking policies that encourage the efficient use of existing parking and permit the continued expansion of commuter parking that facilitates HOV modes of travel.
- TP5.6 - Encourage land use patterns that direct higher density and mixed use development to corridors that are served by public transit.
- TP5.8 - Implement traffic mitigation ordinances that recognize public transit and ridesharing as mitigation measures.
- TP5.9 - Incorporate preferential transit and HOV treatments on selected arterials where practical.
- TP5.10 - Encourage reserved preferential parking spaces at work sites for carpool and vanpools.
- TP5.12 - Perform development review with transit agency participation to ensure site plan compatibility with public transportation.

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- TP5.13 -Based on current federal and state policies aimed at reducing auto-related air pollution, encourage all major employers to implement programs to reduce the number of employees commuting by single-occupancy vehicles through such transportation demand strategies as preferential parking for carpools/vanpools, alternative work hours, bicycle parking, and distribution of transit and ridesharing information.
- TP5.14 -Encourage the use of non-motorized travel to reduce single-occupancy vehicle (SOV) trips.
- TP5.15 -Provide for safe and practical bike and pedestrian connections between employment centers and residential areas with transit facilities such as bus stops and park and rides.

Goal TG6 - Promote mobility choices by developing a range of practical non-auto alternatives. Increase investments to enhance the attractiveness of walking, bicycling, local and regional transit routes and ridesharing.

- TP6.1 - Encourage bicycle travel as a mode of transportation by providing bicycle lanes and/or shoulders on arterial and collector streets.
- TP6.2 - Provide bicycle racks in commercial and recreational areas.
- TP6.3 - Connect residential areas with other adjacent land uses by removing barriers that restrict bus, pedestrian, and bicycle circulation.
- TP6.4 - Enhance the safety and practicality of travel by bicycle, particularly for travel that would otherwise be via single-occupancy vehicle.
- TP6.6 - Provide sidewalks along arterial and collector streets.
- TP6.7 - Provide sidewalks along streets that are identified as school safe walking routes.
- TP6.8 - Create connections between residential areas and schools, parks, the post office, and the library and shopping.
- TP6.9 - Develop connections to regional trails and coordinate with efforts along the regional Stevens Pass Greenway.

Goal TG7 - Provide safe and convenient access to multiple transportation modes within the North Kelsey Planned Development area. Integrate pedestrian, bicycle and transit access into a seamless transportation network; provide dedicated bicycle lanes and a bus transfer facility.

- TP7.1 - Provide safe, efficient, and attractive pedestrian connections between uses throughout the development area and to uses surrounding the North Kelsey planned development area.
- TP7.2 - Develop streets with pedestrian amenities such as sidewalks, awnings, street trees and landscaping.

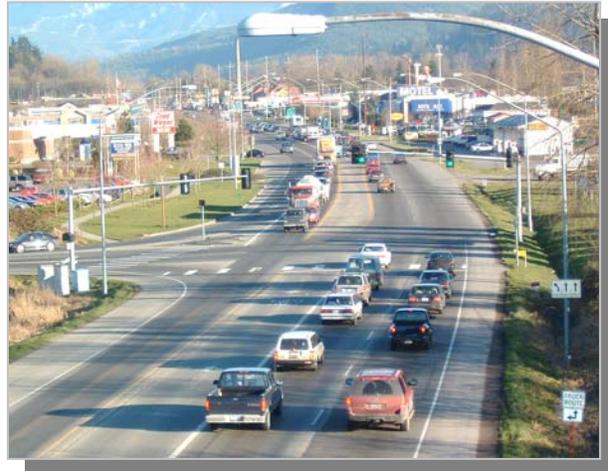
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- TP7.3 - Provide separation of vehicles and pedestrians, where possible, along arterials.
- TP7.4 - Incorporate safe bicycle access to and throughout the North Kelsey planned development area.
- TP7.5 - Enhance street and pedestrian connections between the North Kelsey planned development area and downtown.

CHAPTER FOUR

Street System

The Monroe transportation system is comprised of different transportation modes that move people and freight throughout the City and broader region. The roadway system provides the primary means for transportation throughout the Monroe area. The City is served by a street network that includes freeways, arterials, collectors, and local streets. This chapter describes that network and how well it serves the City presently and in the future.



Under the Growth Management Act, cities and counties are required to adopt level of service (LOS) standards to establish what level of congestion a community is willing to accept and to determine when growth has consumed that available capacity. The GMA requires that land use and transportation planning be coordinated so that transportation capacity is evaluated concurrent with development. This chapter sets the standard for performance of the street network and discusses strategies to preserve and improve the system for future use.

EXISTING STREET SYSTEM

Located at the intersection of SR 522 and US 2, the City of Monroe lies at the confluence of one of only five important east/west links across the Cascade Mountains. The City is approximately 35 miles northeast of the city of Seattle and 17 miles southeast of Everett. Monroe is relatively flat, but there are hills to the north and east, with the Cascade Mountains starting to rise 20 miles east. Horse farms, boarding and training stables and arenas dot the countryside in every direction, as do several dairy farms, berry farms, and cornfields. Monroe has a variety of small industries and retail spaces located along US 2, throughout the downtown area, and within the Fryelands Industrial Park.

FUNCTIONAL CLASSIFICATION

Streets function as a network. The logic and efficiency of the street network system are dependent upon how streets move traffic through the system. Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide. There are three main classes of streets in Monroe: arterials, collectors, and local streets. All streets have been classified using the Federal Functional Classification system shown in **Table 4-1**. City street classifications are identified in **Table 4-2** and **Figure 4-1**.

Table 4-1. Explanation of Functional Classifications

Street Class	Function	Direct Land Access	Speed Limit	Comments
Primary Arterial	Intercommunity and intra-metro area. Primary: traffic movement. Secondary: land access.	Limited: major generators only.	35-60	A street with access control, channelized intersections, restricted parking, and that collects and distributes traffic to and from minor arterials.
Minor Arterial	Primary: intercommunity, intra-metro areas, traffic movement. Secondary: land access.	Restricted: some movements may be prohibited; number and spacing of driveways controlled.	25-35	A street with signals at important intersections and stop signs on the side streets that collect and distribute traffic to and from collector streets.
Collector	Primary: intercommunity, intra-metro areas, traffic movement. Secondary: land access. Tertiary: inter-neighborhood traffic movement.	Safety controls: limited regulation	25-30	A street that collects traffic from local streets and connects with minor and major arterials.
Local	Land access.	Safety controls: local access only.	25	A street designed to provide vehicle access to abutting property and to discourage through-traffic.

Source: Washington State Department of Transportation

Table 4-2. City of Monroe Functional Street Classifications

Road/Highway	Length in City or UGA (miles)	Functional Classifications	
		Washington RCW 35.78.010	Monroe Classification
US 2	3.28	Major Arterial	Primary Arterial
SR 522	2.23	Major Arterial	Primary Arterial
SR 203/Lewis Street	0.87	Secondary Arterial	Primary Arterial
W Main St/Old Owen Road	3.63	Secondary Arterial	Minor Arterial
Fryelands Blvd/Roosevelt Road	2.22	Secondary Arterial	Minor Arterial
Chain Lake Road	1.61	Secondary Arterial	Minor Arterial
Woods Creek Road	1.11	Secondary Arterial	Minor Arterial
N Kelsey Street north of US 2	0.6	Secondary Arterial	Minor Arterial
N Kelsey Street US 2 to Main Street	0.48	Secondary Arterial	Collector
179th Ave SE/Robinhood Lane	2.9	Secondary Arterial	Collector
Ingraham Road	.64	Secondary Arterial	Collector
154th Street/Blueberry Lane	1.62	Secondary Arterial	Collector
Wales Street Fryelands to 171st	0.57	Secondary Arterial	Collector
Currie/171st, Fryelands to Wales	0.94	Secondary Arterial	Collector
Oaks Street	0.23	Secondary Arterial	Collector
Tjerne Place (future road)	0.56	Secondary Arterial	Collector
East-West Connector	0.42	Secondary Arterial	Collector
All other roads/streets within City	40	Access	Local Access

UGA= Urban Growth Area

insert

Figure 4-1. City Street Classifications

The table also shows the functional classifications designated by the Washington State Department of Transportation. The City of Monroe system is consistent with the State's designations. The *Monroe Design Standards Manual* identifies design standards for each type of street, in conformance with WSDOT and AASHTO standards. The design standards include street design requirements for widths, radii, typical speed limits, and other information along with typical street layouts and cross-sections.

From a planning perspective, acknowledgment and proper designation of functional classifications allows for the preservation of right of way for future transportation corridors, whether the corridor provides access to car, HOV, transit, bike, or pedestrian use. Functional classification helps establish corridors that will provide for the future movement of people and goods through the City, irrespective of mode. Proper designation is crucial to the planning effort; as development occurs, proper accommodation for the transportation corridor may be incorporated into the plans. Reclassifications occur over time in response to changes in the function of the streets, traffic patterns, and the character of the surrounding land uses.

PRIMARY ARTERIALS

The primary arterial street system in Monroe consists of three state highways that connect within the city.

US Highway 2 (US 2) is a primary arterial that runs east/west through the City. It originates from the west at Interstate 5 in the City of Everett and runs east through Monroe and over Stevens Pass into Eastern Washington. It is two lanes wide approaching Monroe from the west, expands to three lanes at its intersection with 179th Avenue SE, then to four lanes (with turn lanes) between its intersection with SR 522 and Old Owen Road, and back to two lanes thereafter. The speed limit is 35 mph between SR 522 and the eastern City limits. The speed limit is 45 mph between SR 522 and the Evergreen Fairground's west parking lot, and 55 mph between the fairground's parking lot and the western City limits. *US 2 is identified as a Highway of Statewide Significance (HSS), and is on the National Highway System (NHS).*

State Route 203 (SR 203) is a primary arterial beginning at SR 202 in Fall City and ending at US 2 in Monroe. Within the City, it is also known as Lewis Street. Beginning at US 2 in Monroe, SR 203 is a four-lane roadway, with no parking or sidewalks, to the south of the railroad crossing. SR 203 then becomes a two-lane facility with parking on both sides through the commercial area in the vicinity of Main Street. To the south of Main Street, the land use becomes residential and SR 203 continues as two lanes with a planted median, parking on sides, sidewalk, and planter strips. The speed limit is 25 mph within the City and 55 mph outside the City. *State Route 203 is identified as a Highway of Regional Significance, otherwise known as a Tier 2 Non-HSS roadway.*

State Route 522 (SR 522) is a primary arterial originating at Interstate 5 (I-5) within the City of Seattle and ending at the intersection of US 2 in Monroe. From Interstate 405 (I-405) in Bothell, SR 522 operates as a four-lane freeway to a point just east of the Paradise Lake Road intersection. From Paradise Lake Road to US 2, the highway is a

two-lane road with limited access points. The State is in the process of completing environmental and design studies to expand SR 522 to a four-lane freeway for the remainder of its length between Paradise Lake Road and US 2. The speed limit is 60 mph for the four-lane freeway section, 35 mph for the two-lane section and becomes 25 mph at its intersection with US 2. *SR 522 is identified as a Highway of Statewide Significance (HSS).*

MINOR ARTERIALS

Described below are the existing minor arterials and their characteristics.

Chain Lake Road is a minor arterial originating from the north at Trombley Road near Chain Lake and ending at US 2. To the north of the N Kelsey Street, it is a two-lane road with a 35 mph posted speed limit. From N Kelsey Street to US 2, it operates as a two/three lane road with widening at the US 2 intersection. To the south of the intersection with US 2, Chain Lake Road becomes Lewis Street (SR 203).

Fryelands Boulevard/Roosevelt Road is a minor arterial that begins at West Main Street and operates with four lanes north to US 2. In this section Fryelands Boulevard has a landscaped median with sidewalks or a trail along the street. It becomes Roosevelt Road north of US 2 and operates with two lanes. The speed limit is 35 mph.

Woods Creek Road is a two-lane minor arterial with a 35 mph posted speed limit over most of its length, beginning at US 2 and ending at the intersection of Lake Roesiger Road and Dubuque Road.

Old Owen Road is a two-lane minor arterial with that runs northeast beginning at the intersection of US 2/Main Street into the City of Sultan. The speed limit is 25 mph within the City limits and is 35 mph otherwise.

North Kelsey Street is a five-lane minor arterial extending from US 2 to the intersection of Chain Lake Road. In this section, N Kelsey Street includes curb, gutters and sidewalks. To the south of US 2, Kelsey Street becomes a collector.

Main Street is a two-lane minor arterial beginning at the US 2 at the intersection with Old Owen Road and running southwest to become the Old Snohomish-Monroe Road at the west City limits. It has a posted speed limit of 25 mph and runs through the downtown, residential and commercial areas. The street has medians or a center left-turn lane with curb, gutter and sidewalks along much, but not all, of its length.

COLLECTORS

Described below are the existing collector streets and their characteristics.

179th Avenue SE is a collector that originates from the north as Robinhood Lane and runs south intersecting US 2, 154th Street SE, and ending at West Main Street. It is mainly two lanes wide with limited sidewalks and a 25 mph posted speed limit. It is four lanes wide on the southbound approach to US 2 and three lanes wide on the northbound approach to US 2.

N Kelsey Street is a collector running from West Main Street to US 2. It operates with two lanes and a 25 mph posted speed limit.

Blueberry Lane/154th Street is a two-lane collector oriented east to west, originating at its intersection with N Kelsey Street, becoming 154th Street at King Street, and terminating at Fryelands Boulevard. The speed limit is 25 mph with sidewalks and on-street parking on one or both sides for most of its length.

Country Crescent is a two-lane collector that runs northwest/southeast from Chain Lake Road to Woods Creek Road. The posted speed limit is 25 mph.

Ingraham Road is a two-lane collector that provides a north/south collector distributor function from Woods Creek Road to the north into Snohomish County.

Oaks Street is a collector that connects Old Owen Road with Woods Creek Road and runs behind the Monroe Plaza Shopping Center. This two-lane road is designed with curb and gutter on the south side and a gravel shoulder on the north side of the road. It is anticipated that this street will connect to the new Tjerne Place collector where it intersects with Woods Creek Road.

The plan (**Figure 4-1**) recommends several new collectors to meet the future traffic circulation needs within the City. These streets are described below.

Tjerne Place is a new east/west collector being designed to connect Kelsey Street with Chain Lake Road and Woods Creek Road.

East/West Connector (North) is a proposed two-lane collector road from 191st Avenue to Chain Lake Road. This will function as a frontage road along the future planned Monroe Bypass.

156th Street/170th Avenue SE is a short section of existing street that connects the current collector designation on 171st Avenue SE to 154th Street. Designating these street segments as collectors will complete the collector system in the Fryelands neighborhood.

147th Street/Tye Street is an existing street network in the Fryelands industrial zone primarily serving the businesses in that area. These streets serve a collector street function and provide connections between 179th Avenue SE and Fryelands Boulevard.

Northern Corridor is a proposed collector street corridor linking 191st Avenue SE to Ingraham Road. The growing residential developments in the northern section of the City and urban growth area will create a need for additional collector streets. The corridor shown on the map is an approximate alignment of the collector, which would need to be further analyzed as development occurs.

TRAFFIC VOLUMES

Traffic volume counts were obtained from the City of Monroe and WSDOT during 2005. The counts included detailed intersection volumes for the PM peak periods and hourly traffic flows along major routes throughout the day.

AVERAGE WEEKDAY TRAFFIC VOLUMES

Figure 4-2 shows the average weekday traffic volumes on Monroe's streets for the year 2005. The highest daily volumes were found on the state primary arterials: US 2 east of SR 522 (35,000 vehicles per day-vpd) and SR 522 west of Main Street (24,000 vpd). SR 203/ Lewis Street south of US 2 showed 14,000 vpd. Other minor arterials showed daily volumes ranging from 10,000 to 15,000 vph on Main Street and Fryelands Boulevard to 5,000 to 10,000 vph on minor arterials to the north of US 2, such as N Kelsey Street, Chain Lake Road, Woods Creek Road, and Old Owen Road. Streets classified as collectors in the City have daily volumes in the 4,000 to 7,000 vpd range.

A major contributor to the high traffic volumes on US 2, SR 522, and SR 203 is traffic passing through the City. This 'pass-through' traffic originates in surrounding jurisdictions and uses these roads to access the major regional highways and freeways such as SR 9, I-405 and I-5. For example, many of the peak hour trips in the City are home to work trips originating *outside* of the Monroe area and destined for jobs in areas *outside* of Monroe, including the cities east of Lake Washington. Roughly one-third of the traffic on the state highways in Monroe is attributable to pass-through traffic.¹ During the peak periods, almost half of the traffic entering Monroe on westbound US 2 is passing through the City. The through trips are higher on weekends due to heavy recreational travel.

Much of this traffic filters into the City's minor arterial, collector, and local streets during peak periods when congestion is highest. Several City arterials connect directly to US 2, SR 203 and SR 522: West Main Street, Fryelands Boulevard, North Kelsey Street, Chain Lake Road, and 179th Avenue SE. These streets are among the most heavily used in the City, a function of their connections to the State highway system. Many City streets show increases in traffic counts that exceed the volumes that might be expected to occur only by growth and development patterns occurring within the City. To illustrate this situation, traffic volumes on US 2 fluctuated up and down between 1998 and 2005, even though the population in Monroe and surrounding areas has continued to grow. During the same period, traffic volumes grew on City streets such as West Main Street, which is being used as a diversion route from the congestion on US 2.²

PM PEAK HOUR VOLUMES

¹ Source: WSDOT, *US2 Route Development Plan, Origin & Destination Study*, 2006.

² Source: WSDOT, *US 2 Route Development Plan, In Progress* 2006.

The PM peak hour represents the highest volume that typically occurs on the streets during the week. The peak hour varies from location-to-location, with peaks occurring earlier around school zones, and later peaks occurring along some commuter routes. The hour from 5 to 6 PM was chosen for analysis as being most representative of average peak hour conditions throughout the city.

Traffic volumes were analyzed at 29 intersections located in **Figure 4-3**. The PM peak hour volumes range from 8 to 10 percent of the daily volumes shown previously in Figure 4-2. Intersection volumes are heaviest along US 2.

SPEED LIMITS

The City designates speed limits as a means of alerting drivers to safe and appropriate travel speeds for a particular corridor segment. As previously identified, most of the primary, minor and collector streets have posted speed limits of 25 to 35 mph. Local roads are designated as 25 mph zones. The City routinely monitors corridors to ensure appropriate speed limits are in place. Legal speeds are located in City code and are clearly signed on the roadways.

TRAFFIC SIGNALS AND SIGNS

Traffic signals, signs, and pavement markings are used to direct drivers, pedestrians, and bicyclists, thereby increasing the effective use of the roadway by moving traffic more efficiently and safely. The City uses the Manual of Uniform Traffic Control Devices (MUTCD) as guidance for design, construction, and placement of signs in the right of way.

The City currently has nine traffic signals located at the following locations: Along US 2 (Fryelands Boulevard, 179th Avenue SE, SR 522, N Kelsey Street, Chain Lake Road, and Old Owen Road/East Main Street); W Main Street and South Lewis Street (SR 203), and on Fryelands Boulevard (Wales St and 154th Street SE). The intersection of West Main Street/Tester Road/SR 522 ramps has a roundabout constructed in 2001. Several other intersections are controlled with all-way stops.

FREIGHT

Monroe contains several important freight routes in the Puget Sound region. Both rail and truck freight, originating largely in the Port of Everett, pass through Monroe regularly. Currently the average number of trains passing through Monroe via Stevens Pass is 23, with a peak number of 35 trains/day. That number is expected to nearly double by 2025 with an average of 46 and a peak of 51 trains/day.³ Burlington Northern Santa Fe (BNSF) owns the rail tracks in Monroe.

³ *Washington Transportation Plan Freight Systems*, presentation by Barbara Ivanov, Director Freight Strategy & Policy, WSDOT, at the City of Kent October 18, 2005. (Note: Includes passenger trains)

Insert

Figure 4-2. Average Weekday Traffic Volumes

Insert

Figure 4-3. PM Peak Hour Traffic Volumes

US 2 serves as a critical link between Western and Eastern Washington and provides one of three connections across the Cascade Mountains that are open throughout the year. It is also an important connection to the Central Puget Sound urban area for residents and businesses of the outlying communities along this route.

US 2 is also a major route for recreational travel and transport of natural resource products carried both to the Puget Sound Region and Eastern Washington. WSDOT has designated both US 2 and SR 522 as Strategic Freight Corridors (routes that carry more than 4 million tons/year). WSDOT classifies US 2 as a T-1 freight corridor with an annual tonnage in 2004 of 14.1 million tons – all passing through the City of Monroe. SR 522, a T-2 corridor carried 7.8 million tons in 2005. In comparison, I-405 from Lynnwood to Bothell carried 33.5 million tons in 2005. The State’s Strategic Freight Transportation Analysis⁴ shows that during the Fall season, eastbound trucks are carrying wood products (69%), agricultural products (18%), and prepared foods (12%). Westbound trucks are carrying containers (14%), agricultural products (12%), electronic and electrical equipment (12%), cereal grains (10%) and all other (42%). In the winter the mix changes with eastbound trucks predominately carrying less wood products (45%), mixed freight (26%), pulp and paper (23%), and vehicles and parts. Several streets and highways are designated as approved truck routes in the City (*Monroe Title 10, Chapter 10.24*):

The following State highways are truck routes:

- Lewis Street (SR 203)
- US 2
- SR 522

The following streets are also truck routes and are located in the industrial area south of US 2 between 179th Avenue SE and Fryelands Boulevard:

- Tye Street
- Beaton Road
- 147th Street SE - Tye Street to 179th Avenue SE
- 146th Street SE - Fryelands Boulevard to 169th Drive
- 167th Avenue - 146th Street SE to Tye Street
- 169th Drive - 146th Street SE to Tye Street
- 172nd Drive - Beaton Road to cul-de-sac

In addition, truck deliveries are made to and from businesses within the industrial park by using Fryelands Boulevard for access; it is not a designated truck route for any other purpose. The City encourages local delivery trucks to use the designated truck network

⁴ Washington State University, *Strategic Freight Transportation Analysis (SFTA)*,

as much as possible, but recognizes that trips on non-truck routes will sometimes be necessary. The City is committed to supporting local industry, business, and residential needs and recognizes that the ability to ship and receive freight is essential to the success of many businesses. Therefore, the City will collaborate with local businesses to improve freight access, while maintaining the roadway infrastructure, whenever possible.

AIR TRANSPORTATION

A public-use general aviation airport, First Air Field, is located north of US 2 on the west side of 179th Avenue. The approximately 25 acre site contains one service building, plus space for storage of small aircraft. First Air Field is open 24 hours a day, 7 days a week; however, the majority of take-off and landings occur between dawn and dusk. First Air Field has one runway, identified as 07-25, that is utilized mostly by single- and twin-engine propeller aircraft. The runway only has solar powered lighting and both runway ends have visual approaches. The airport has access to ground transportation in the form of a rental car agency and a taxi service.

Specific airport runway characteristics are listed below:

- Runway 07-25 runs west to east: Runway end 07 is at latitude N47° 52' 17.2508", longitude W121° 59' 58.1781". Runway end 25 is at latitude N 47° 52' 16.5656", longitude W 121° 59' 27.5775".
- Elevation: The Washington State Aeronautical Charts state the general elevation for First Air Field is 50 feet above mean sea level (North American Vertical Datum, 1988). More specific data states: Runway 07 is 33 feet above mean sea level, Runway 25 is 46 feet above mean sea level (North American Vertical Datum, 1988).
- Dimensions: 2,095 feet long, 34 feet wide. There is an additional 500-foot long grass runway at the end of runway 07. Runway 25 has a displaced threshold of 500 feet because of an obstruction penetrating the imaginary surface just east of the end of the runway at the Evergreen State Fairgrounds in the form of two equestrian barns.
- Pavement: asphalt surface in fair condition (WSDOT, Aviation)
- Lighting: solar lighting is provided along the runway.
- Approach aids: none.
- Runway taxi system: there is a 890 foot by 15 foot partial parallel taxiway, a 260 foot by 30 foot hangar taxi-lane, and on 80 foot by 20 foot connector. All taxiways are in fair condition.
- Traffic pattern: Runway 25 left-hand traffic, Runway 7 right-hand traffic. All take off and landing patterns are to the south of the airport due to a steep elevation change and residential developments north of the airport. If wind is not a factor, the best runway to land on is 07 since the runway inclines to the east. The prevailing winds are from the west.
- Weather updates: the airport has a windsock.

- Support facilities: fuel services via a fuel truck, a pilot's lounge and office, and a 4,200 square foot maintenance building.

First Air Field has five hangars, with twelve bays each. The base fleet fluctuates in number throughout the year with the summer months having approximately 100 planes and the winter months having 75 planes. The base fleet consists of single-engine and multi-engine piston-powered aircraft. The fastest plane currently using First Air Field is a Cessna 421. The largest plane, by weight carrying capacity and wingspan, is a Pilatus Porter, which can carry up to 10 skydivers. There is also one seaplane that is based at the facility, a Helio Courier.

The current airport owner prohibits ultra-light planes at First Air Field, except in the event of an emergency landing. It is anticipated that this use will continue to be prohibited. MEDEVAC helicopters also use First Air Field with two emergency airlifts a week, on average, according to the airport manager and airport owner. The airport owner voluntarily allows the use of First Air Field for emergency evacuations without formal agreements with Snohomish County Fire District #3, the Monroe Police Department, Snohomish County Sheriff, and the Washington State Patrol.

SAFETY

The City places a high priority on providing a safe transportation system for travelers of all modes. Continual efforts are made to construct and retrofit streets in a manner that improves safety and decreases the likelihood of accidents. Safety issues related to collisions, railroad crossings, and emergency response needs are discussed as follows.

Collisions

The City collects and monitors collision data to identify roadway hazards, and seeks to correct hazardous locations in the City by implementing appropriate safety measures. US 2 experiences a high number of collisions within Monroe, primarily due to the traffic congestion that routinely occurs along it during peak periods. From 1999 to 2004, there were 1,110 collisions on US 2 within the City of Monroe, with over half being rear-end collisions⁵. These collision rates are substantially higher than the statewide average.

SR 203 has several high accident corridor (HAC) segments along its length between Monroe and Fall City⁶. One of these HACs is located to the south of the City limits near Tualco Road; however, no HACs are currently reported within the City on SR 203. Several non-signalized City intersections (eg Hill Street, Fremont Street) along SR 203 have experienced collisions due to turning vehicles. In 2004, WSDOT identified a Pedestrian Accident Location (PAL) at SR 203 and Main Street.

Railroad Crossings

⁵ Source: WSDOT NW Region Traffic Office

⁶ Source: WSDOT NW Region Traffic Office, as reported in SR 203 Pilot Study: Corridor Concept Plan, December 2004

At grade railroad crossings create a potentially dangerous situation for motorists, non-motorized travelers, and rail passengers. With more than 25 trains passing through the City each day, the City has many at-grade crossings, each with unique safety implications. The BSNF line crosses at Fryelands Boulevard, 179th Avenue SE, N Kelsey Street, Lewis Street, and East Main Street. SR 522 crosses the railroad with an overpass.

The City coordinates with railroad operators and the state to upgrade the crossings whenever possible. For instance, railroad equipment upgrades were installed in 2005 and 2006 at the crossings on W Main Street and N Kelsey Street, and a signal intertie was installed between the N Kelsey/SR-2 traffic signal and the N Kelsey/BNRR crossing signal.

Emergency Response

Providing residents with quick responses in emergency situations is a high priority for the City. The City works to provide an adequate street network that will ensure multiple alternate routes for emergency vehicles. In addition, the City has mutual-aid agreements with nearby emergency response operators to ensure adequate coverage in case of road closures or other obstacles that would otherwise prevent timely emergency response.

STREET LEVEL OF SERVICE

The Growth Management Act (GMA) requires the City to establish service levels for the street network and to provide a means for correcting current deficiencies and meeting future needs. Transportation planners and engineers use the term “level of service” (LOS) to measure the operational performance of a transportation facility (street or intersection). This measure considers perception by motorists and passengers in terms of speed, travel time, freedom to maneuver, traffic interruptions and delays, comfort, and convenience.

Level of service (LOS) is a qualitative measure describing operational conditions within a traffic flow, and the perception of these conditions by drivers or passengers. Levels of service are given letter designations, from A to F, with LOS A representing the best operating conditions (free flow, little delay) and LOS F the worst (congestion, long delays). Generally, LOS A and B are good, LOS C and D are moderate, and LOS E and F are poor.

The City of Monroe focuses the evaluation of LOS at intersections. Traffic conditions at intersections are the primary contributor to travel delay during peak hours.

Signalized intersection level of service is defined in terms of the average total vehicle delay of all movements through an intersection. Vehicle delay is a method of quantifying several intangible factors, including driver discomfort, frustration, and lost travel time. The non-signalized LOS criterion is divided into two intersection types: all-way stop-controlled and two-way stop-controlled. All-way, stop-controlled intersection level of service is expressed in terms of average vehicle delay of all of the movements, much like that of a signalized intersection. Two-way, stop-controlled intersection level of service is more closely reflected in terms of its individual movements, rather than the

overall performance of the intersection. For this reason, the LOS standard for a two-way, stop-control intersection is defined in terms of its individual movements.

The LOS and corresponding average intersection delay in seconds are shown in **Table 4-3**.

Table 4-3. Level of Service Intersection Thresholds

Type of Intersection	Level of Service (Intersection Delay - Seconds)					
	A	B	C	D	E	F
Signalized	< 10	> 10 and < 20	> 20 and < 35	> 35 and < 55	> 55 and < 80	> 80
Non-signalized	< 10	> 10 and < 15	> 15 and < 25	> 25 and < 35	> 35 and < 50	> 50

Source: Transportation Research Board, 2000 Highway Capacity Manual

CITY LEVEL OF SERVICE STANDARDS

The level of service (LOS) standards for the City of Monroe⁷ are as follows:

- LOS D for intersections with roadways with functional classification of Arterial.
- LOS C for intersections with roadways with functional classification of Collector and Local roadways.
- An Interlocal Agreement between the City and WSDOT establishes the following LOS standards for intersections located along US 2, SR 203, and SR 522 (City of Monroe 1990):
- Where the LOS prior to development is D or better, attempts to maintain LOS D be undertaken.
- Where the LOS prior to development is E, the state will request that LOS E be maintained after development.
- Where the LOS prior to development is F, the state will request mitigation measures so that with the project in place, the estimated delay for signalized intersections, or the reserve capacity for non-signalized intersections, or the volume to capacity ratio for segments, be no worse than pre-development conditions.

Intersections that operate below these standards are considered deficient. Deficiencies are identified either as existing deficiencies, meaning they are occurring under existing conditions and not as the result of proposed development, or as projected future deficiencies, meaning that they are expected to occur under one or more future development scenarios.

⁷ *Transportation Element of Comprehensive Plan, City of Monroe, , 1994.*

Insert

Figure 4-4. Level of Service at Locations within the City

LEVEL OF SERVICE ANALYSIS

Level of service is an evaluation of the operational characteristics of roadway intersections, which are typically the points of congestion for a roadway. Synchro 6.14 software was used to calculate intersection level of service during the PM peak hour. SIDRA software was used to analyze LOS for the roundabout at the SR 522 Northbound Ramps/W Main Street/Tester Road intersection.

2005 PM PEAK HOUR LEVEL OF SERVICE

The 2005 PM peak hour delay and LOS for the 29 study intersections are presented in **Table 4-4**. This table shows which intersections are operating worse than the City's adopted LOS standard. **Figure 4-4** shows the LOS at intersections within the City and highlights locations that are routinely congested during the PM peak hour.

Signalized Intersections

Seven of the 29 study intersections are signalized. The operations during the PM peak hour range from LOS C to LOS E. Two signalized intersections do not meet the City's concurrency standards of LOS D for arterial intersections and for state highway intersections: E/W Main Street and SR 203/Lewis Street, and Highway 2 and Fryelands Boulevard/Roosevelt Road. The LOS E is due to heavy traffic volumes on US 2 combined with turning movements from the arterial connections.

Two signalized intersections on US 2 operate within the City's standard at LOS D: the US 2 intersections at E Main Street/Old Owen Road, and at N Kelsey Street. The remaining three signalized intersections operate at LOS C and are located on US 2, at 179th Avenue SE, at SR 522, and at Chain Lake Road/SR 203. Two intersections along Fryelands Boulevard (Wales Street and 154th Street SE) were not included in the analysis, since their volumes are relatively low and the streets operate satisfactorily.

The roundabout intersection located at Tester Drive, SR 522 northbound ramps, and W Main Street operates at LOS A.

Non-signalized Intersections

The operations for non-signalized intersections during the PM peak hour range from LOS A to LOS F. The all-way stop-controlled intersection of W Main Street and 179th Avenue SE operates at LOS F and does not meet the arterial street level of service requirement of LOS D. Seven two-way stop-controlled intersections have minor streets with a LOS that does not meet the City's standards. In all cases, the left turn movements leaving the minor streets to the main streets create the failing conditions.

The remaining non-signalized intersections operate within the City's adopted standard of LOS C.

2005 AM PEAK HOUR LOS ANALYSIS

The AM peak hour traffic conditions were examined at 15 high volume intersections to identify whether there were specific morning traffic patterns that would affect the LOS

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conditions in the City. During the AM peak hour (7 to 8 am), the signalized intersections operate in a range from LOS B to LOS D, within the City's standards.

The studied non-signalized intersections operate at LOS C or better during the AM peak hour. The one exception is the intersection of W Main Street and Kelsey Street, which operates at LOS F. The LOS deficiency is caused by the turning movements from Kelsey Street onto W Main Street.

Table 4-4. 2005 PM Peak Hour Intersection Level of Service

Int #	Intersection Location	Control Type	Delay (sec/ veh)	LOS	LOS Std
1	W Main St & Fryelands Blvd	TWSC	23	C	D
2	W Main St & SR 522 SB Ramps	TWSC	40	E*	D
3	Tester Rd & SR 522 NB Ramps/W Main St	Roundabout	4	A	D
4	W Main St & 179th Ave SE	AWSC	52	F*	D
5	W Main St & N-S Kelsey St	TWSC	>180	F*	D
6	E-W Main St. & SR 203/Lewis St	SIGNAL	70	E*	D
7	US 2 & E Main St/Old Owen Rd	SIGNAL	36	D	D
8	US 2 & Fryelands Blvd/ Roosevelt Rd	SIGNAL	61	E*	D
9	US 2 & 179th Ave SE	SIGNAL	32	C	D
10	US 2 & SR 522	SIGNAL	32	C	D
11	US 2 & N Kelsey St	SIGNAL	37	D	D
12	US 2 & Chain Lake Rd/SR 203	SIGNAL	32	C	D
13	US 2 & Woods Creek Rd/Ann St	TWSC	15	B	D
14	146th St SE & Fryelands Blvd	TWSC	14	B	D
15	Tye St & Fryelands Blvd	TWSC	16	C	D
16	154th St SE & 179th Ave SE	AWSC	17	C	C
17	149th St SE & 179th Ave SE	TWSC	17	C	C
18	147th St SE & 179th Ave SE	TWSC	52	F*	C
19	Blueberry Ln & N Kelsey St	TWSC	39	E*	C
20	Lenton Place/Fred Meyer & N Kelsey St	TWSC	>180	F*	D
21	Safeway Access & Chain Lake Rd	TWSC	32	D	D
22	US Bank Access & Chain Lake Rd	TWSC	12	B	D
23	N Kelsey St & Chain Lake Rd	TWSC	34	D	D
24	Chain Lake Rd & Rainier View	TWSC	16	C	D
25	Chain Lake Rd & County Crescent	TWSC	13	B	D
26	Safeway Access & Woods Creek Rd	TWSC	88	F*	D
27	Oaks St & Woods Creek Rd	TWSC	14	B	D
28	Old Owen Rd & Albertson's Access	TWSC	83	F*	D
29	Old Owen Rd & Oaks St	TWSC	17	C	D

Notes:
 SIGNAL = Signalized intersection; AWSC = All-way stop-controlled intersection; TWSC = Two-way stop-controlled intersection
 Delay and LOS reported for the worst minor movement
 Roundabout analyzed with Sidra software.
 * LOS exceeds City's LOS Standard
 Int #: Refer to Figure 4-3

STATE HIGHWAY LEVEL OF SERVICE

The City has coordinated with the WSDOT to set and evaluate LOS on the State highways through Monroe. The City's adopted policy is to establish LOS D for state highway segments, including intersections with City streets. This policy has been applied to evaluate State highway facility needs and examine development impacts on state highways.

Amendments to the GMA in 1998 added new requirements for local jurisdictions to address state-owned transportation facilities, as well as local transportation system needs in their comprehensive plans (RCW 47.06.140). House Bill 1487, adopted by the Washington State Legislature in 1998, requires that the Transportation Element of local comprehensive plans must include the LOS standards for Highways of Statewide Significance (HSS). However, HB 1487 also clarified that the concurrency requirement of the GMA does not apply to HSS or other transportation facilities and services of statewide significance. HB 1487 requires local jurisdictions to estimate traffic impacts to state-owned facilities resulting from land use assumptions in the Comprehensive Plan.

The WSDOT Standard

WSDOT uses a LOS methodology called the "Average Capacity Ratio" (ACR) to measure the severity of congestion over a 24-hour period. The ACR is the ratio of the annual average daily traffic to the one-hour capacity of a facility. Index volumes under this system will range from 2 (little to no congestion) to 24 (congestion over the entire 24-hour day).

The Washington State Transportation Commission adopted the ACR as an index to measure facility performance and to establish thresholds for identifying deficiencies. The adopted threshold ARC index value is a 10 for urban highways and a 6 for rural highways. Highways that exceed these thresholds are considered deficient. The ACR thresholds approximate LOS D operations in urban areas and LOS C operations in rural areas.

The goal of the WSDOT is to maintain the acceptable operation of its key system corridors designated as HSS. Both SR 522 and US 2 are designated as HSS facilities. The current LOS standard for both of these facilities is ACR 10. The existing ACR on the State highway segments is estimated as follows. While US 2 and SR 203 are operating close to the State LOS standard, the grade-separated portion of SR 522 performs somewhat better.

- SR 522 (W Main Street to US 2) - ACR range = 7 to 8
- US 2 (SR 522 to SR 203/Lewis Street) - ACR range = 9 to 10
- SR 203 (W Main Street to the Skykomish River) - ACR range = 8 to 9

The Puget Sound Regional Council adopted LOS standards in the fall of 2003 for regionally significant state facilities also designated as "Non-HSS". In Monroe, SR 203 is identified as a Tier 2 Non-HSS roadway. Tier 2 is defined as a route that serves the

"outer" urban area (those outside the 3-mile buffer) and connect the "main" urban growth area (UGA) to the first set of "satellite" UGA's. These urban and rural areas are generally farther from transit alternatives, have fewer alternative roadway routes, and locally adopted LOS standards in these areas are generally LOS D or better. The proposed standard for Tier 2 routes is LOS D.

FUTURE STREET SYSTEM

TRAVEL FORECAST METHODOLOGY

Forecasts of 2025 travel in Monroe were produced using the Monroe travel model, developed as part of the City's transportation plan update. The Monroe travel model was designed using VISUM, a travel forecasting package vended by the PTV Corporation. The process began with a set of goals for the model, identified in discussions with City staff. These goals included defining a model study area extending from Snohomish to the west and Gold Bar to the east, and being able to analyze a set of critical intersections specified by the City. The time period chosen to be depicted by the model was the PM peak hour on an average weekday.

The study area was divided into 200 subarea analysis zones (SAZs) as the basic geographic unit for estimating travel demand. These SAZ's were laid out using digital information, including 2000 Census TIGER files and aerial photos. Approximately half of the SAZ's are located within the City of Monroe, since a greater level of detail was needed. Street and intersection characteristics were obtained from the City's inventory and from field inspection. The model's trip purposes, trip generation rates, and trip distribution parameters were based initially on those of the Puget Sound Regional Council (PSRC) surveys and parameters used in other travel models in the region; these were then adjusted as part of the validation process. The final version of the model was validated against directional PM peak hour traffic counts collected as part of the transportation planning effort.

The process of predicting future traffic consisted of replacing existing land use with estimates of future land use, and then making assumptions about street system improvements deemed to be committed or likely to occur in future years. The City supplied 2025 land use estimates, and 2025 street improvements were identified from the City's Transportation Improvement Program (TIP). Puget Sound Regional Council (PSRC) and Snohomish County household and employment forecasts were used for areas outside of the Monroe Urban Growth Area (UGA). The model was run with these inputs to generate estimates of 2025 travel demand on the future networks.

POPULATION AND EMPLOYMENT GROWTH

The City of Monroe is one of the fastest growing cities along US 2. Over the past 15 years its population almost quadrupled from just over 4,200 people in 1990 to over 17,000 in 2005. Employment has also grown, primarily within the commercial areas of Monroe along US 2 and industrial areas along Fryelands Boulevard. **Table 4-5** shows the forecasted growth in households, population, and employment between 2005 and 2025.

POPULATION GROWTH

By 2025, the population within the City and surrounding Urban Growth Area (UGA) is expected to increase by another 50 percent, to over 26,000 people. Much of the housing growth will come from higher density re-development within the City and the rapidly growing annexation areas. Population will increase at an even higher rate for the larger study area (including Monroe and surrounding Snohomish County), with future study area population exceeding 65,000 residents.

EMPLOYMENT

Employment is forecast to increase by around 35 percent between 2005 and 2025. As shown in Table 4-5, most of the employment growth will occur within the Monroe UGA, fueled by continued growth along the US 2 corridor and the planned North Kelsey development. The number of new residents in the study area will exceed the employment growth forecasts, resulting in more people commuting to and through Monroe.

Table 4-5. Monroe Study Area Growth Forecasts (2005-2025)

Location	Growth		
	2005	2025	2005 to 2025
Monroe UGA			
Households	5,475	7,980	2,505 (+ 46%)
Population*	17,490	26,590	9,100 (+ 52%)
Employment	9,150	12,390	3,240 (+ 35%)
Study Area (including Monroe UGA)			
Households	13,875	21,675	7,800 (+ 56%)
Population*	41,260	65,340	24,080 (+ 58%)
Employment	11,045	15,090	4,045 (+ 37%)

Source: *City of Monroe Comprehensive Plan (2006)*; *Monroe Travel Demand Model (2005)*; Mirai Associates

* Population assumes 2.83 persons per household plus prison population. Prison population estimates (1,995 in 2005; 3,050 in 2025). Actual population was 2,480 as of April 2006.

TRAFFIC GROWTH

The travel demand model produces future traffic growth as the result of future land use forecasts within the study area combined with regional and statewide travel along the major state highways⁸. The traffic forecasts for 2025 show travel growth that is consistent with trends during the past twenty years. The highest growth is expected to occur along the state highways, as follows in **Table 4-6**.

Table 4-6. Traffic Growth Expected on State Facilities

Location	Growth Percent 2005 to 2025	Annual Growth Rate 2005 to 2025	Comments
SR522 (West of Main St)	180%	5.3%	Assumes completion of four-lane freeway to US 2
US 2 (West of Fryelands Blvd)	110%	3.9%	No widening assumed
US 2 (East of E Main St/ Old Owen Rd)	65%	2.6%	No widening assumed
SR 203 (South of Skykomish River)	65%	2.6%	No widening assumed

This growth is due to a combination of new development within Monroe and the expanding housing demand surrounding Monroe within Snohomish County and other cities.

PREFERRED ALTERNATIVE STREET NETWORK

In order to address the growing traffic volumes and congestion levels on City streets, three alternative roadway improvements scenarios were examined:

- **2025 Baseline-** Consists primarily of the existing City street system plus projects programmed and partially funded in the City’s TIP and in the State highway program. These projects have a reasonable likelihood of being implemented during the next 20 years.
- **Local Projects-** Adds city street improvements in congested areas. Most of these projects include addition of traffic control or channelization at intersections.
- **Regional Transportation Projects-** Adds two major regional roadway projects that are under the control of the WSDOT and are included in the State’s long-range transportation system plan. These projects include the eastern portion of the Monroe Bypass and widening of US 2 between North Kelsey Street and Fryelands Boulevard. Neither of these projects is currently funded within the next 20 years.

The Preferred Alternative combines these scenarios into a comprehensive package of transportation improvements. The projects included in the Preferred Alternative are described in **Table 4-7** and shown in **Figure 4-5**.

⁸ At the time that the Monroe travel demand model was developed, the land use forecasts were different than the final uses adopted in the City’s Comprehensive Plan. The model used higher employment and lower population forecasts, resulting in somewhat higher traffic forecasts within the City UGA. These conservatively high forecasts were considered to be reasonable for use in developing the final plan recommendations.

Table 4-7. The Preferred Alternative

Project #	Capital Project (TIP Number)
BASELINE PROJECTS	
1	N Kelsey St/W Main St Signalization (TIP 19) - Install traffic signal.
2	179th Ave SE /W Main St Signalization (TIP 6) - Install traffic signal.
3	W Main St/SR 522 WB Ramps - Construct a roundabout.
4	Fryelands Blvd/W Main Street (TIP 12) - Construct a roundabout.
5	US 2/N Kelsey St (TIP 13) - Construct a second eastbound left-turn lane. Install median at Lenton Place (TIP 11)
6	US 2/Chain Lake Rd Improvements (TIP 14) - Install eastbound and westbound right -turn lanes on US 2 and a new southbound second left-turn lane on Chain Lake Road from Tjerne Place to US 2.
7	Tjerne Place – N Kelsey St to Chain Lake Rd (TIP 9) - Construct a new 3-lane street.
8	N Kelsey St/Tjerne Place Signalization (TIP 10) - Install a traffic signal.
9	Chain Lk Rd/N Kelsey St Intersection (TIP 24) - Construct a roundabout.
10	Tjerne Place - Chain Lk Rd to Woods Ck Rd (TIP 14) - Construct a new 3-lane street.
11	US 2/W Main St/Old Owen Rd (TIP 7) - Add right-turn lane from eastbound Main onto US 2.
12	Chain Lake Rd - Phase 1 - (TIP 4) - Install pedestrian facilities and drainage improvements on both sides of Chain Lake Road.
13	Woods Creek Rd - Phase 1 (TIP 5) - Install pedestrian/bike trail with curb/gutter and drainage system on north/west side of Woods Creek Road-from Oak St to existing trail entrance.
14	E/W Connector (north) - Construct a new, 2-lane street between 191st Ave and Chain Lake Rd along north side of Bypass right of way.
15	SR 522- Widen to 4 lanes from Snohomish River Bridge to US 2. Add NB to EB ramp to US 2 and add an EB lane on US 2 from SR 522 to Chain Lake Road.
LOCAL PROJECTS	
16	Kelsey St/Blueberry Lane (TIP 7) - Install traffic signal and add NB lane on N Kelsey St from North St to US 2
17	179th Ave SE/147th St SE (TIP 16) - Install traffic signal and reconstruct the northwest corner of intersection for truck traffic. Widen 147th St SE to provide separate right and left turn lanes onto 179th Ave SE.
18	179th Ave SE/154th St SE (TIP 20) - Install traffic signal.
19	Fryelands Blvd/146th St SE (TIP 39) - Install traffic signal.
20	Fryelands Blvd/Tye St (TIP 21) - Install traffic signal.
21	Chain Lake Rd/Tjerne Place (TIP 17) - Install new traffic signal.
22	Woods Creek Rd/Tjerne Place (TIP 23) - Install traffic signal. Add SB right turn pocket on Woods Creek Road.
23	Oaks St Widening-Woods Cr Rd to Old Owen Rd (TIP 22) - Continue Tjerne PI to Old Owen Rd.
24	Old Owen Rd/Oaks St Signalization (TIP 25) - Install traffic signal.
25	Chain Lake Rd–Phase 2 (TIP 32)– Widen road to a 3/5 lane section from N Kelsey St to Brown Rd.
26	Woods Creek Rd–Phase 2 (TIP 33)– Widen road to a 3-lane section from Oak St to the City limits.
REGIONAL PROJECTS	
R-1	Monroe Bypass (Eastern Segment) - Construct the eastern segment of the Monroe Bypass as a four-lane expressway extending from the current terminus of SR 522 at US 2 to a location near the eastern City limits. The bypass would follow the current WSDOT right of way. Provide a new partial movement interchange with local streets in the vicinity of Chain Lake Road.
R-2	US 2 Widening - Widen US 2 to a five-lane configuration between the interchange with SR 522 extending west through the intersection of US 2/Fryelands Boulevard. Provide one additional westbound lane between SR 522 and North Kelsey Street.

insert

Figure 4-5. Preferred Alternative

PREFERRED ALTERNATIVE LEVEL OF SERVICE

The 2025 PM peak hour intersection levels of service (LOS) for the Preferred Alternative are presented in **Table 4-8**. Two new intersections (Numbers 30 and 31) were added to the analysis for future conditions.

The combination of local and regional projects would allow most intersections to operate within the City's desired LOS standards. The bypass route would divert substantial traffic away from US 2 through the center of Monroe and would provide a new route for traffic destined to the North Kelsey subarea and residential areas to the north of the bypass. This effect would substantially improve the LOS at each of the intersections along this section of US 2. The LOS would also be improved to the west of the US 2/SR 522 interchange by widening the highway to a five-lane design. Each of the US 2 intersections (Numbers 7 through 14) would operate at LOS D or better, with the exception of US 2/Fryelands Boulevard (Number 8) which would operate at LOS E. These regional projects would need to be further examined by WSDOT as part of ongoing US 2 studies.

Four local street intersections (Numbers 21,22,26, and 28) in the commercial area north of US 2 would remain at LOS F, but these driveway locations could be improved with access management to limit congested turning movements. Two intersections serving new residential areas along Chain Lake Road (Numbers 24 and 25) would operate at LOS E. Conditions at these two locations could improve with new local street connections that are built as development occurs. The intersection of Main Street and Lewis Street/SR 203 (Number 6) would also operate at LOS F. Further study of this intersection should be conducted as part of a future downtown circulation and access plan.

Table 4-8. 2025 Intersection Level of Service for Preferred Alternative-PM Peak Hour

Intersection Number (Refer to Figure 4-2)	Intersection Location	LOS Standard	2005	2025
			Existing LOS	Preferred Alternative
1	W Main St & Fryelands Blvd	D	C	B
2	W Main St & SR 522 WB Ramps	D	E	B
3	Tester Rd & SR 522 EB Ramps/W Main St	D	A	B
4	W Main St & 179th Ave SE	D	F	B
5	W Main St & N-S Kelsey St	D	F	C
6	E-W Main St. & SR 203/Lewis St	D	E	F##
7	US 2 & E Main St/Old Owen Rd	D	D	D
8	US 2 & Fryelands Blvd/ Roosevelt Rd	D	E	E#
9	US 2 & 179th Ave SE	D	C	D#
10	US 2 & SR 522	D	C	C
11	US 2 & N Kelsey St	D	D	D#
12	US 2 & Chain Lake Rd/SR 203	D	C	D#
13	US 2 & Woods Creek Rd/Ann St	D	B	C
14	146th St SE & Fryelands Blvd	D	B	B
15	Tye St & Fryelands Blvd	D	C	B
16	154th St SE & 179th Ave SE	C	C	B
17	149th St SE & 179th Ave SE	C	C	E***
18	147th St SE & 179th Ave SE	C	F	B
19	Blueberry Ln & N Kelsey St	C	E	B#
20	Lenton Place/Fred Meyer & N Kelsey St	D	F	B
21	Safeway Access & Chain Lake Rd	D	D	F**
22	US Bank Access & Chain Lake Rd	D	B	F**
23	N Kelsey St & Chain Lake Rd	D	D	B
24	Chain Lake Rd & Rainier View	D	C	E*
25	Chain Lake Rd & County Crescent	D	B	E*
26	Safeway/Albertson Access & Woods Ck Rd	D	F	F**
27	Oaks St & Woods Creek Rd	D	B	C
28	Old Owen Rd & Albertson Access	D	F	F**
29	Old Owen Rd & Oaks St	D	C	B
30	Chain Lake Rd & Tjerne PI	D	NA	D
31	N Kelsey St & Tjerne PI	D	NA	B

Table Notes:

- * Evaluate further as local street system develops in residential areas
- ** Median treatment to limit left turns would improve LOS
- *** Intersection does not meet signal warrants. However, delays for left turns from side street would reduce, since more gaps available with signal at nearby 147th Street
- **** LOS remains the same but delays would be reduced
- # Would require reconstructing railroad crossing due to widened road
- ## LOS would improve to LOS D if parking removed from Lewis St

CHAPTER FIVE

Non-Motorized System

The City of Monroe values walking and bicycling as an integral part of a complete transportation system. Monroe is interconnected by multi-use trails, bicycle lanes, pedestrian walkways and sidewalks.

The City desires to protect, enhance and expand this existing infrastructure to meet pedestrian and bicyclist's needs. The City's planning policies and goals encourage safe, barrier-free mobility for all members of the community.



The planning and development of a strong non-motorized network supports several state and national acts, including Washington's Growth Management Act, Clean Air Act, and Commute Trip Reduction Act, the federal Clean Air Act, the Americans with Disabilities Act (ADA), and the Intermodal Surface Transportation Efficiency Act (ISTEA) and its successors. Supporting the non-motorized system helps ensure compliance with these initiatives and the healthy community principles espoused by Puget Sound Regional Council (PSRC) through *Destination 2030* and the *Vision 2020* update process. It also increases funding opportunities for City projects.

This chapter is divided into two sections: the pedestrian system and the bicycle system. Each section contains an assessment of existing conditions and needs, followed by guidelines for development of the future system.

PEDESTRIAN TRAVEL

The City of Monroe was established in 1902 after the completion of the railroad line. Over time, the town has developed slowly in a traditional manner with small city blocks, a grid street pattern and sidewalks along two lane streets. More recently, the State completed major highway connections of US 2 and State Route 522 (SR 522). As a result, suburban-scaled development has occurred to the west and along US 2. Large tracts of commercial centers have located along US 2 with an environment that favors vehicles rather than pedestrians. Many of the newer residential areas have cul-de-sacs with multi-use trails passing through the neighborhoods.

EXISTING CONDITIONS

The pedestrian system in the City is comprised of sidewalks and a network of trails. The existing pedestrian inventory is shown in **Figure 5-1** and described in the following section.

INSERT

Figure 5-1

SIDEWALKS

Monroe’s Old Town has remained intact and supports a positive pedestrian environment. One and two storied buildings front Main and Lewis streets. Many businesses, as well as the post office, are located in Old Town Monroe. A block away from the old commercial center, the oldest residential areas contain single family homes laid over a grid street pattern. Since most garages are located in the alleys, there are a minimal number of driveway cuts in the sidewalk. Street trees line most streets. Sidewalks have been built on most sections with about half of the corners having curb ramps. Depending upon when they were installed, the curb ramps are located on the corner or at the end of the corresponding cross walk. The sidewalk conditions, in general, are in fair condition.

As part of the plan update, the City conducted a sidewalk inventory of classified streets. Classified streets include arterials and collectors and are defined both by function and name in the Streets Chapter (Chapter 4). **Table 5-1** summarizes the miles of pedestrian facilities along arterial and collector streets within the City and the adjacent Urban Growth Areas (UGA). To calculate the mileage, a roadway having a walkway on at least one side is counted as a street with pedestrian facility.

Table 5-1. Pedestrian Facilities Located Along Arterials and Collectors

Location	Total Length of Street (miles)	Street Length With Existing Pedestrian Facilities		Street Length With Missing Pedestrian Facilities		Percent of Missing within Monroe City limits (%)	Functional Classifications
		Miles	% of Total	Miles	% of Total		
US 2	3.3	0.9	27%	2.4	73%	71%	Primary Arterial
SR 522	Limited Access Highway - No Pedestrian Access						Primary Arterial
SR 203/Lewis Street	0.9	0.9	100%	0.0	0%	0%	Primary Arterial
Main Street/Old Owen Road	3.6	2.0	55%	1.6	45%	38%	Minor Arterial
Fryelands Blvd/Roosevelt Road	2.2	1.7	77%	0.5	23%	100%	Minor Arterial
Chain Lake Road	1.6	0.3	18%	1.3	82%	77%	Minor Arterial
Woods Creek Road	1.1	0.1	8%	1.0	92%	80%	Minor Arterial
N Kelsey Street (north of US 2)	0.6	0.3	50%	0.3	50%	100%	Minor Arterial
N Kelsey Street (US 2 to Main St)	0.5	0.5	100%	0.0	0%	0%	Collector
179th Ave/Robinhood Lane	2.9	1.0	34%	1.9	66%	0%	Collector
Ingraham Road	0.6	0.0	0%	0.6	100%	0%	Collector
154th Street/Blueberry Lane	1.6	1.3	83%	0.3	17%	100%	Collector
Wales Street (Fryelands to 171st)	0.6	0.6	100%	0.0	0%	0%	Collector
Currie/171st (Fryelands to Wales)	0.9	0.8	89%	0.1	11%	100%	Collector
Oaks Street	0.2	0.0	0%	0.2	100%	100%	Collector
TOTAL*	20.7	10.4	50%	10.3	50%	53%	ALL

* Mileage includes street segments located within the City limits and the Urban Growth Area
Totals do not include SR 522 mileage
N/A = Not Applicable

Half of the City's arterials and collector streets currently have pedestrian facilities. Most of the road segments with missing pedestrian facilities are located on the periphery of the City or in the Urban Growth Boundary (UGA).

Just to the west of Old Town, the residential developments from post World War II through the 1970s do not include sidewalks, and the driveways are located in the front rather than in the alley. This area is roughly bounded by SR 522 and 179th Avenue SE to the west, W Main Street to the south, US 2 to the north and Old Town Monroe to the east. In the newest developments northwest of SR 522 and west of 179th Avenue SE, as well as developments off Chain Lake and Roosevelt Road, the neighborhoods incorporate sidewalks, street trees and multi-use trails. Some garages are located in alleys. In the potential annexation areas, pedestrian facilities typically do not exist.

The commercial areas along US 2 have some pedestrian facilities in the form of multi-use trails and sidewalks. A multi-use trail is located on the north side of US 2 between SR 522 and Old Owen Road and on the south side of US 2, between N Ann Street and N Lewis Street and around the N Kelsey intersection. Some street trees are planted along the trail. West of N Lewis Street, a sidewalk extends up to 750 feet. Shelters are located at all transit stops along US 2. Recent road work along US 2 between SR 522 and Main Street added missing curb ramps at all intersections. No pedestrian facilities are located to the west of SR 522 along US 2 along the south side of US 2.

TRAIL NETWORK

Monroe's developing trail network provides local and regional connections for recreational use, commuting and travel in general. Currently the only regional trail that has been developed are portions of the proposed Centennial Trail extension. These portions exist along Fryelands Boulevard as well as sidewalks along 154th Street SE and Main Street. The

Centennial Trail is envisioned to pass through the south portion of the City and eventually cross the Lewis Street Bridge towards Duvall. The current terminus of the Centennial Trail is located in the town of Snohomish.

US 2 is a nationally designated scenic byway, known as the Stevens Pass Greenway. At present, there are multi-use trails that front commercial retail areas on the north side of US 2 between SR 522 and Main Street. Potentially, these multi-use trails could connect to communities along the Greenway.

ACCESSIBLE ROUTES OF TRAVEL

The Americans with Disabilities Act (ADA) requires that all new public, commercial and institutional developments meet ADA standards. Furthermore, existing public buildings, public outdoor facilities, and public

ADA Standards

The ADA has several requirements to help ensure ease of access for all non-motorized travelers. Some of these requirements are as follows.

A minimum 3-foot wide clear zone must be provided along a route with obstacles. Where appropriate, railings should be at minimum 27" high with vertical clearances of 80".

Generally, grades along an accessible route should not exceed 1:12 or 8.33%.

If a designated accessible route has a grade greater than 5%, it is considered a ramp and must have handrails and landings.

Source: ADA and Architectural Barriers Act (ABA) Guidelines, <http://www.access-board.gov/ada-aba.htm>

rights of way should be retrofitted to achieve accessibility under certain conditions. An accessible route of travel is designated to accommodate the needs of many different people, including those who are blind, using wheelchairs, pushing a stroller or cart, or are injured. The law requires that municipalities have a transition plan in place to address ADA issues. The City of Monroe details the ADA design specifications in the City's Design Standards Manual.

SCHOOL ACCESSIBILITY

School safety is a major concern for parents, students, the school districts, and the City. The Monroe School District has established walk routes for each elementary, middle and high school based on the presence of sidewalks or walking paths; the safety on neighborhood streets; the availability of safe street crossings; and the traffic conditions in the surrounding neighborhoods. These identified routes are designated as "safe routes to school". Out of the ten schools in the district, three elementary schools, two middle schools and one high school are located within the City's limits. The following needs were identified to enhance and improve the safety for school children that use the safe routes to school.

- Sidewalks are missing along 154th Street SE between 179th Avenue SE and King Street
- A striped lane is the only separation between the walkway path and vehicular traffic along 179th Avenue SE between W Main Street and 154th Street SE
- Sidewalks are missing along the east side of Fryelands Boulevard between 152nd Street SE and 156th Street SE.

FUTURE PEDESTRIAN SYSTEM

This section describes the City's vision for the future pedestrian system and identifies programs and initiatives that will enable it to achieve this vision. Figure 5-1 shows the locations of existing and recommended pedestrian facility improvements

ARTERIAL AND COLLECTOR STREETS

Monroe has several arterials that do not have pedestrian facilities. Many are within growing areas of the City, especially in potential annexation areas. As new developments occur, pedestrian facilities will be needed to connect to the rest of the City. Another area of concern is that the State facilities, SR 522 and US 2, create pedestrian barriers between different areas of the City. Efforts should focus on providing safe crossings across US 2 and at the Main Street underpass by SR 522.

While most of the arterials in the older parts of Monroe and the newly developed areas have sidewalks, there are opportunities to enhance the pedestrian environment. Sidewalks need to be updated for curb ramps and other ADA requirements. Future planning along commercial corridors should also include amenities such as landscaping adjacent to the sidewalk, improved pedestrian crossings, and enhanced bus stops at high use locations.

LOCAL STREETS

As part of new development, investment in Monroe's local streets is an essential component of providing a comprehensive and functional pedestrian network. Some parts of the City have

incomplete sidewalks. This plan and other City planning efforts recognize the need to fill in these missing links as development occurs.

TRAIL NETWORK

Monroe's *Parks, Recreation & Open Space Element* identifies specific projects for the development of local and regional trails. Most of these projects are long term plans and are not currently funded. The Centennial Trail Extension will provide a multi-use trail that will connect the City of Snohomish with recreational facilities in Monroe. A multi-use trail along US 2 will extend connections to neighboring Sultan and enhance the pedestrian experience along the Stevens Pass Greenway. The Loop Trail is also envisioned to provide connections between the growing areas in the north with the rest of Monroe.

BICYCLE TRAVEL

Bicycle facilities are an important component of Monroe's transportation and recreation infrastructure. Bicycling provides a clean, non-motorized form of transportation and allows citizens to maintain a healthy lifestyle. It also helps improve traffic congestion and air quality by providing an alternative to driving.

EXISTING CONDITIONS

The bicycle system is comprised of bicycle lanes and multi-use trails. The following section highlights the existing bicycle conditions and identifies improvement needs. Existing bicycle facilities in the City are shown in **Figure 5-2**.

BICYCLE TRAILS

The topography in most parts of Monroe is flat and conducive to cycling for a range of skill levels. Monroe lies over the plains created by the sediment from the Skyhomish River. Moving away from the river, riding becomes somewhat challenging. Areas to the southwest and north and northeast of the Evergreen State Fairgrounds rise above the river by a few hundred feet. Existing and planned bicycle trails are focused primarily in the flatter areas.

Recreational and commuter cycling are limited to just a few facilities. Along Fryelands Boulevard, a multi-use trail that parallels the roadway creates a north-south connection on the west side of Monroe between US 2 and Main Street.

Areas along the Stevens Pass Greenway provide recreational opportunities for multi-use trails that support bicyclists and pedestrians. The closest regional trail is the Centennial Trail, a major north-south trail in Snohomish County. It currently ends in the City of Snohomish. Efforts are underway to include Monroe as part of the regional network. There are few existing cross-town connections for bicyclists.

BICYCLE LANES

Cyclists desire safe routes that make connections throughout the City and to regional points of interests. The existing facilities are isolated from one another and fall short of creating a bicycle network in Monroe. Bicycle lanes are extremely limited on arterials and collectors, making it difficult both for regional and local riders to navigate for any reasonable distance through the City. If unfamiliar with the terrain and/or unskilled, cyclists may find it difficult

to bike through the City. Many times, cyclists ride in heavy traffic, on limited shoulders, or within the travel lane. Also, once in Monroe, there is no clear direction for traveling within and through the City.

Currently, bicycle lanes are located on 154th Street SE between 171st Avenue SE and 179th Avenue SE and on Tester Road between Main Street and the Monroe High School. Cyclists frequently ride along US 2 and Old Snohomish Monroe Road/Main Street for east-west movement. For connections to the south of Monroe, cyclists ride along Lewis Street/State Route 203 (SR 203). However, these roads are characterized by difficult cycling conditions and are not suitable for inexperienced cyclists.

FUTURE BICYCLE SYSTEM

This section describes the City's vision for a future bicycle system and identifies programs and initiatives that will help achieve this vision. Figure 5-2 shows the location of proposed improvements to the bicycle system.

The City plans to provide better cross-town connections and expand the bicycle network. Upgrading the bicycle facilities on City streets is an important component of this plan. In the future, annexations could provide opportunities to expand the bicycle infrastructure. The City's *Parks, Recreation and Open Space Element* also discusses the need for improving bicycle facilities in the area. On-street bicycle facilities will be sought in association with planned roadway improvements. In addition, the City will investigate the possibility of providing bicycle storage and other amenities on City-owned properties.

BICYCLE TRAILS

The proposed future bicycle network includes corridors for regional, recreational, and cross-town connections. The regional corridors will provide connections to the Stevens Pass Greenway communities as well other areas of Snohomish County. Other planned regional connections could link Monroe to the cities of Snohomish, Sultan and Duvall. Local biking groups have identified US 2 and SR 203 as important regional connections.

The Centennial Trail extension and Stevens Pass Greenway corridors are multi-functional, providing recreational opportunities not only for pedestrians, but for regional and local bicycle trips. Additional cross-town connections, including the Loop Trail, will consist of a mix of local trails and on-road facilities to link Monroe's various neighborhoods.

BICYCLE LANES

The proposed bicycle projects would link to the existing multi-use trails and bike lanes. Completion of the 154th Street SE/Blueberry Lane bike lanes would provide an east-west connection to the Old Town. A secondary east-west connection would occur along Main Street, providing a link with the Centennial Trail. North-south connections would be provided by bike lanes along 179th Avenue SE and Kelsey Street. The identification of bike facility projects was based upon several criteria, including safety, route continuity and connectivity issues.

Insert

Figure 5-1. Bicycle Facilities

RECOMMENDATIONS

Monroe’s future non-motorized system consists of an interconnected network of sidewalks, bike lanes and multi-use trails. The criteria for prioritizing the projects took into account several characteristics of the improvement that were identified as important to the community in Monroe’s transportation goals and policies. **Table 5-2** identifies and describes the criteria used for prioritizing non-motorized projects. These criteria were weighted based upon their relevant significance to the non-motorized network.

Table 5-2. Non-Motorized Project Criteria

Criteria	Description	Weighted Value
School Walk Route	Project location that parallels an identified school safe walking route.	25
Transit Facility	Project location overlaps a transit route or that is adjacent to or leads to a transit facility.	15
Park	Project location that is adjacent or leads to a park facility.	15
Civic Building	Project location that is part is adjacent or leads to a civic building e.g. library, school, post office, hospital.	15
Centennial Trail	Project location that is part of or connects to the proposed Centennial Trail alignment.	15
Loop Trail	Project location that is part of or connects to the proposed Loop Trail alignment along the north edge of the City.	10
Stevens Pass Greenway	Project location that is part of the designated Steven Pass Greenway along US 2.	10
Activity Centers	Project location that is located or leads to the North Kelsey Development or Old Town Monroe	25
Safe Crossings	Project that improves the safety for pedestrians or bicycles crossing a street.	20
TOTAL		150

Using these criteria, a list of proposed projects was developed for planning purposes. **Table 5-3** includes the non-motorized projects that were rated in this process. **Appendix A** contains details regarding the rating process. These projects do not include any of the street improvement projects (described in Chapter 4) that could also improve the pedestrian or bicycle environment. **Figure 5-3** maps out the future non-motorized network.

The recommended non-motorized network is depicted in Figure 5-3. This network would provide regional, recreational and citywide connections for a variety of non-motorized modes. The completed portions of the Centennial Trail extension and Stevens Pass Greenway would connect pedestrians and cyclists to areas east, west and south of Monroe, while the Loop Trail would provide connections between the developing northern half of the City to the existing neighborhoods. Additional bike lanes through town and completion of the paved trails network would guide cyclists safely to points of interests and through congested areas of the City.

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Pedestrians would be able to travel more safely and comfortably with the completion of the sidewalk network, new crossings, signalized intersections, street lighting, increased driver awareness, and better street design near schools and frequently traveled pedestrian locations. New trail connections along US 2 and under SR 522 at Main Street would provide pedestrians and cyclists a safer connection to Old Town Monroe. Upgrading the pedestrian walkway to sidewalks along 179th Avenue SE would also provide a safer environment for children to walk to school. In addition to the specific projects shown on the map, there are several traffic calming actions along Lewis Street (SR 203) that were identified as part of the WSDOT *SR 203 Pilot Study*. Several of these actions would benefit pedestrian safety, including median treatments, intersection bulb-outs, and pedestrian crossing areas.

Table 5-3. Non-Motorized Facility Recommendations (not in priority order)

#	Location	Description
NM1	Village Way	Add bike lanes between both ends of Main Street, allowing connections to City Hall and the library.
NM2	Main Street – Fryelands Boulevard to Kelsey Street	Add bike lanes to both sides, special treatments needed at roundabouts and corner extensions.
NM3	179th Avenue SE – US 2 to Main St	Upgrade walkways to sidewalks and add bike lanes to both sides.
NM4	154th Street SE – Fryelands Boulevard to 171st Avenue	Add bike lanes to both sides, connecting to existing bike lanes.
NM5	Stevens Pass Greenway	Construct a continuous multi-use trail through the City of Monroe along US 2. May overlap with the Centennial Trail and existing US 2 multi-use paths.
NM6	Kelsey Street – Main Street to US 2	Add bike lanes to both sides.
NM7	154th Street SE/Blueberry Lane – 179th Avenue SE to Kelsey Street	Add bike lanes to both sides, connecting to existing bike lanes.
NM8	Main Street – Kelsey Street to Railroad Avenue	Add signage and markings for bike route.
NM9	Main Street – Railroad Avenue to US 2	Add bike lanes to both sides, special treatments needed at the railroad crossing.
NM10	Railroad Avenue/Simons Road – Main Street to Al Borlin Park	Add bike lanes between Main Street and Al Borlin Park.
NM11	Old Owen Road – US 2 to east City limits	Add sidewalk/walkway to one side of the roadway.
NM12	Roosevelt Road – US 2 to west City limits	Add multi-use trail from US 2 to City limits.
NM13	179th Avenue SE – US 2 to north City limits	Add bike lanes to both sides and a walkway path to one side of the roadway.
NM14	Loop Trail	Construct new multi-use trail between existing trails along Foothills Road and Rainier View Road, near the bypass right of way.

Insert

Figure 5-3. Recommended Pedestrian and Bicycle Facilities

CHAPTER SIX

Transit System

Unlike the street and non-motorized systems, the City of Monroe does not directly administer transit service. Rather, the City works with the county transit agency, Community Transit, to coordinate service. Community Transit is an agency publicly funded and responsible for providing transit service in Snohomish County, including the City of Monroe.



EXISTING TRANSIT SERVICE

Table 6-1 and Figure 6-1 summarize the existing transit service in Monroe.

Table 6-1. Existing Transit Service

Bus Route #	Route Direction	Weekday				Weekend	
		Daily Trips	Approx Time Range*	Peak Headway	Off-Peak Headway	Sat	Sun
CT 270/271/275 & E*	To Everett	30	5:49 am to 10:10 pm	30	30-60	Yes**	Yes**
	To Gold Bar	31	6:21 am to 11:20 pm	30	30-60		
CT 424	To Seattle	3	5:25 to 6:47 am	30 to 40	0	no	no
	To Snohomish	4	5:02 to 6:39 pm	30 to 40	0		
CT 277 E	To Boeing	3	4:26 to 5:26 am	n/a	n/a	no	no
	To Gold Bar	3	2:58 to 3:58 pm				
DART	Dial-a-Ride Transportation available to qualified elderly and disabled passengers living within 3/4 miles of fixed route local service.						
	Ride-matching service available Vanpool service available						

* The times are for bus arrivals at the Monroe Park-and-Ride Lot

** Weekend Service only for Route 271

E = Express

In September 2003, Community Transit restructured the east county service and increased service hours by approximately 50 percent. Community Transit replaced Routes 720 and 727 with Routes 270, 271, 275 and 277. Community Transit routes 275 and 271 (weekends) provide the primary local bus service to Monroe. These routes serve the Fryelands, Village Way (serving the Library and Senior Center) and the Kelsey

Insert

Figure 6- 1. Transit Map

Commercial Development north of US 2. A custom bus route (CT 277E) operates three peak period trips from Gold Bar, Sultan and Monroe to the Boeing Everett Plant. This route also drops off passengers at the Everett Station in the morning trip, but does not pick them up on the return afternoon trip. Route 270 provides weekday express service between Gold Bar and Everett along US 2.

As part of the 2003 Community Transit service change, weekday trip frequencies were improved to every 30 minutes between Monroe, Snohomish and Everett. In 2004 total boardings (includes entire corridor between Everett and Gold Bar) were approximately 16 percent higher than 2003.

Community Transit operates an express route (CT 424) that provides three morning and four afternoon peak period trips between the City of Snohomish and Seattle, with a midway stop at the Monroe Park-and-Ride along US 2. Route 424 provides direct service from Monroe to downtown Seattle and drops-off passengers by request at Kingsgate (I-405), Evergreen and Montlake Freeway stations (on SR 520). On the afternoon return trips, passengers may be picked up in downtown Seattle and at the same freeway stations.

In addition to the established bus routes, Community Transit has Dial-A-Ride Transit, which provides transportation for people whose disability or condition prevents them from using regular bus routes. Additional services provided by Community Transit include Ride match, Vanpool, and Carpool programs. The vanpool program has been particularly effective, with 20 vans currently operating to/from Monroe, and others passing through Monroe enroute to Boeing Everett and other major employers. Most of the vanpools originate within Monroe and travel to employment sites throughout the region. Five of the vanpools have the Monroe Department of Corrections as a work destination from residential areas within Snohomish County.

PARK-AND-RIDE FACILITIES

The City of Monroe has two park-and-ride facilities. The Monroe park-and-ride lot is located just off US 2 approximately 0.25 miles west of 179th Avenue. This lot has 102 spaces and has reported a steady growth in use since 2003. In 2005, the lot had a 66 percent utilization rate.

The City also has a "park and pool" lot using leased parking at the Monroe School District property on Main Street at 179th Avenue SE. This lot has 25 designated stalls with an average utilization rate of 60 percent in 2005.

The two park-and-ride facilities are served by the local Routes 275/271 and the express Route 424 to Seattle. The larger Monroe lot is also served by the express Routes 277 and 270 oriented to Snohomish, Everett and Boeing.

FUTURE TRAVEL

The growing travel demands in the Monroe area continue to create opportunities for expanded transit service and facilities. Several transit services and facilities improvements are recommended to improve accessibility to public transportation for Monroe citizens. These recommendations were developed in consultation with Community Transit (CT) for input to the agency's ongoing planning process.

Community Transit's 2004-2009 *Transit Development Plan* does not identify any Service Improvement Priorities for Monroe and east Snohomish County beyond the service expansion that was implemented in 2003. However, the following recommendations are consistent with several of the transit agency's identified priorities should funding become available.

TRANSIT SERVICE

The following transit service adjustments and new routes should be considered as part of Community Transit's 2006 update to the *Transit Development Plan*. Several of these recommendations are consistent with those previously identified by Community Transit as 'unfunded service priorities' for East County. The 2006 update may change these priorities.

- **Adjust routing and scheduling of existing local transit "shuttle" (CT 271, 275) -** These routes provide the bulk of local transit service to Monroe residents. In order to provide improved service, consider the following adjustments:
 - Revise schedule to make easy connections with existing services to Everett, Seattle, and Sultan/Gold Bar
 - Route 271 service span on weekends
 - Expand add hourly weekend service to Route 275
 - Create turnaround and layover areas in North Kelsey development
- **Expand CT Route 424 -** The express route 424 to Seattle is a popular service for Monroe commuters. It's utility would be improved with more frequent service, longer hours, and possible changes in route structure:
 - Create midday and late evening service
 - Realign of Route 424 to begin in Gold Bar instead of the City of Snohomish
- **Provide transit service opportunities for Blueberry Lane -** The section of 154th Street/Blueberry Lane (between 179th Avenue and N Kelsey Street) is one of the higher density residential areas of the city. New transit route options should be considered for this area, possibly tied to a restructuring of existing local routes or provision of a new route. The City's proposed new traffic signal at the intersection of Blueberry Lane and North Kelsey Street will improve movements for buses turning from eastbound Blueberry Lane onto northbound N Kelsey

Street. The spacing of this intersection and the railroad crossing gates will remain a safety issue for transit vehicles making this maneuver.

- **Provide new commuter bus routes** - Monroe residents currently have direct transit options to/from communities along US2 and to selected points along I-405 on the Eastside and downtown Seattle. There is a growing demand for transit services to other Eastside work destinations. Community Transit has identified the following commuter routes to be considered for future service:
 - Monroe to Bothell
 - Monroe to Bellevue
 - Monroe to Overlake

Other potential routes include service to Maltby and Duvall. The Maltby service would be contingent upon that portion of Snohomish County annexing to Community Transit. It is desirable for the Community Transit service boundaries to be consistent with the Monroe School District boundaries and to promote local bus service along the SR 522 corridor. Service to Duvall could be tied into existing and new King County Metro routes to provide Monroe residents with better local service to the Eastside.

- **Expand vanpool service** - The successful Community Transit vanpool program provides travel options for commuters living and working in Monroe. The City should encourage Community Transit to market the vanpool program to other workers whose destinations do not match available bus services. Many of these destinations include major employment sites in Snohomish and King Counties.

TRANSIT FACILITIES

New and upgraded transit facilities will be needed to complement expanded transit services and travel demand for transit. The following facilities are recommended:

- **Create additional park and ride facilities to east of Monroe along US 2** - The two existing park and ride facilities in Monroe are located at the western part of the City. Community Transit's 2005 Park and Ride Survey of the Monroe Park-and-Ride lot showed that approximately 40 percent of the demand for that lot is from commuters traveling from areas east of Monroe to access the lot. Traffic flows on US 2 and other streets could be improved by providing alternative park and ride capacity further to the east on US 2. Such a lot could be served by the Routes 270, 271, and 277, and possibly by a restructured Route 424.
- **Examine bus transfer facility possibilities in North Kelsey area** - Several years ago the City and Community Transit explored the possibility of locating a transit center in Monroe. As the City residential and employment base steadily grows, there is renewed interest in creating a bus transfer facility in the vicinity of the North Kelsey development north of US 2. Two locations identified include Tjerne Place and N Kelsey Street. This facility would facilitate transfers between the

local routes 271/272 and express services such as CT 270/277. This would also be a logical transfer point to a potentially realigned CT 424 service.

- **Provide additional amenities at Monroe Park and Ride** - The Monroe Park and Ride facility provides a convenient location for bus access by Monroe residents. The City will work with Community Transit to further enhance the waiting areas for passengers, upgrade security, and provide additional bicycle lockers. (Note that some lockers were installed by Community Transit in 2006).

TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) is a set of strategies for reducing vehicular travel demand, especially by single-occupancy vehicles (SOV) during commuter peak hours. TDM offers a means of increasing the ability of transportation facilities and services to accommodate greater travel demand without making expensive capital improvements. This is a particularly important strategy in cases where road facilities have already reached the practical limit for physical expansion, congestion is severe, and projections for future traffic indicate continued growth.

TDM employs a wide range of measures to increase the use of ridesharing, carpools, vanpools, transit and non-motorized transportation such as bicycling and walking. Community Transit transportation coordinators provide ridematch assistance to residents of Monroe and commuters who work in Monroe. Other TDM measures employers can institute include providing preferential parking at the worksite; supporting flextime work schedules; providing transit subsidies; charging parking fees; contributing to shuttle services between park-and-rides and the work site. TDM measures can also be characterized as site-design features facilitating TDM compatibility such as pedestrian improvements.

COMMUTE TRIP REDUCTION

The 1991 Legislature found that automobile traffic in Washington's urban areas is the major source of air pollutants and that increasing automobile traffic is aggravating traffic congestion. The Legislature agreed that reducing commute trips to work via SOVs would be an effective way to reduce these impacts. The State's Commute Trip Reduction Law (CTR) (RCW 70.94) requires cities to develop plans and programs to reduce SOV commute trips.

Monroe has an interlocal agreement with Snohomish County for CTR programs. The County provides funds to perform CTR marketing and outreach functions to the City and seven other CTR-affected jurisdictions in the County. The funds can be used for employer training to administer programs, incentives, promotion and marketing, guaranteed ride home programs, or other qualifying CTR programs. The City monitors the program and reports to the state on these SOV trip reduction efforts. Currently the City of Monroe has four employers that meet the State's Commute Trip Reduction Program requirements:

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- Monroe Department of Corrections
- City of Monroe
- Canyon Creek Cabinet
- Valley General

These employers have implemented several programs to encourage their employees to use transit, carpool, or create a vanpool. The City encourages continued support for demand management programs to support these major employers and new worksites.

CHAPTER SEVEN

Financing Plan

This Chapter includes the Financial Plan that proposes ways to pay for the City of Monroe’s 2006-2025 Transportation Plan.

TRANSPORTATION PROJECT COSTS

The 2006-2025 Transportation Plan for the City of Monroe contains a variety of high priority projects that will cost approximately \$ 43.0 million. **Table 7-1** summarizes the costs of the major types of transportation improvements.

Table 7-1. Projected Costs for Transportation Improvements

Projects	Total Costs 2006 to 2025
Street Projects	\$30.0 million
Non-Motorized Projects	\$13.0 million
Total	\$43.0 million

REVENUE FROM EXISTING SOURCES

The City of Monroe uses several sources of revenue to pay for transportation improvements. Each source of revenue and forecasts of future revenue are described below.

GRANTS

Source of Revenue: Some federal and state gas taxes are given to local governments through competitive grants. There are a variety of grant programs, each focused on different types of transportation needs (ie; safety, congestion, rural roads, bridge replacement, etc).

Forecast: The 2006-2010 forecast is based on two specific grants the City has received (see below). The 2011-2025 forecast is approximately half of this amount, per year, based on the City’s annual average of approximately \$100,000 per year from grants for transportation improvements.

US 2/Old Owen intersection	\$ 328,500
US 2/Kelsey intersection	711,755
Total	\$ 1,040,255

Potential Additional Revenue: Forecasting future grant revenue is difficult because of the uncertain outcome of the competition for grant awards. The amount of the two grants included in the 2006-2010 forecast exceeds the annual average grants received by the City; therefore it is likely that future grants will be lower. Nevertheless, the City should apply for grants whenever possible.

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REAL ESTATE EXCISE TAX (REET)

Source of Revenue: The City of Monroe has adopted both 0.25% real estate excise taxes authorized by the state law. REET is collected each time a real estate transaction occurs in the city. The money is used for many types of infrastructure improvements, including transportation projects.

Forecast: During the years 2003-2006, the City spent \$902,292 of REET on transportation projects (North Kelsey and Tjerne Place projects). The 4-year average of \$225,000 is the basis for the forecast for the Transportation Plan and that funding level is assumed to remain in place through 2025.

Potential Additional Revenue: The City currently receives approximately \$700,000 per year from REET. While there is significant competition among Monroe's capital projects for funding by REET, the City could choose to spend more of its REET for major transportation projects. Additional REET funding beyond the current level of \$225,000 per year for transportation capital projects was not assumed, given the competition for these funds from other capital projects within the city.

CONCURRENCY MITIGATION FEES

Source of Revenue: The City of Monroe has a system of mitigation fees that are based on impacts of proposed developments on specific roads. In 1999 the City adopted traffic mitigation fees for six specific road projects and added three intersection projects in 2004. These fees are collected from developments city-wide. In 2006 specific fees were established for the North Kelsey development, but are assessed only against development within North Kelsey. The City also collects mitigation fees on behalf of the Washington State Department of Transportation (WSDOT) for impacts on US 2 and SR-522. In most instances these fees are simply passed on to WSDOT, however in 2006 it was determined that some of the fees collected could be used by the City for improvements to US 2.

Forecast: The following list is a summary of mitigation fees already collected or anticipated to be collected through the mitigation programs mentioned above. In the case of the North Kelsey Development projects it is assumed the fees typically due from the development will be paid. If not paid directly by the development, as in the case of Trace and Lowes, they will be paid from the proceeds of the sale of the property.

Lowes traffic mitigation fees	\$ 1,370,000
Lakeside Leased prop. Developer	2,350,000
Trace traffic mitigation fees:	356,000
Available for nine defined City projects	350,000
First Western	1,970,000
Total	\$ 6,396,000

Potential Additional Revenue: See "Impact Fees" below.

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DEVELOPER COMMITMENTS

Source of Revenue: Developers have committed to make specific improvements, or to pay for those improvements.

Forecast: Three projects currently have commitments from developers:

East/West Connector Road (North)	\$ 2,800,000
Tjerne Place (N. Kelsey to Chain Lake)	1,500,000
Fryelands Blvd/Main St Roundabout	283,000
<hr/>	
Total	\$ 4,583,000

Potential Additional Revenue: None forecast.

PROCEEDS FROM SALE OF PROPERTY

Source of Revenue: A portion of the after-debt repayment revenue from the sale of the properties that comprise the overall North Kelsey development.

Forecast: The City is committed to constructing the road projects necessary to meet the traffic concurrency requirements for the North Kelsey Development. The combined revenue from the North Kelsey traffic mitigation fees, the federal grant, and the WSDOT mitigation fees that can be applied to the improvements to US 2 still fall about \$1 million short of the project costs. This shortfall is proposed to come from the proceeds of the sale of the North Kelsey properties.

Potential Additional Revenue: The City Council could establish a policy that a portion of the proceeds from sale of the Lakeside lease property will be used for the Transportation Plan. This would not be related to the concurrency mitigation payments or filling the shortfall for the North Kelsey road projects described above, but would represent a decision about how to use a portion of the proceeds of the property sale because the debt will be retired before the property is sold. The estimate of \$5 million from the proceeds of the sale is based on a policy that the first \$5 per square foot of sale proceeds would be committed to the Transportation Plan.

GENERAL FUND

Source of Revenue: The City of Monroe has occasionally appropriated some of its general fund money to pay for specific transportation improvements. The City's general fund includes property taxes, utility taxes, and sales taxes that are primarily used for operational costs.

Forecast: No general fund money for major transportation capital facilities is included in the forecast.

Potential Additional Revenue: The City has appropriate general fund dollars for 2006 and 2007 to support selected transportation investments in the North Kelsey area. However, continued appropriations from the general fund would require the City Council to decide how to reduce other general fund expenditures in order to balance the general fund budget. Additional general fund revenues for transportation

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were not assumed, given the competition for these funds from other needed programs within the city.

LOCAL IMPROVEMENT DISTRICTS (LIDS)

Source of Revenue: LIDs collect special assessments from properties in the district to repay the cost of specific transportation improvements in the district that benefit the property owners. LIDs for transportation improvements are rare, and usually apply to local improvements that are not part of Transportation Plans.

Forecast: No LIDs for major transportation facilities are included in the forecast.

Potential Additional Revenue: Even though LIDs for major transportation improvements are rare, the City should be mindful of the potential for LIDs for appropriate projects.

PUBLIC WORKS TRUST FUND (PWTF) LOANS

Source of Revenue: Washington's Public Works Trust Fund (PWTF) makes low interest loans to local governments for infrastructure improvements. The City of Monroe's priority use of PWTF is for utilities, such as reservoir improvements.

Forecast: No PWTF loans for major transportation facilities are included in the forecast.

Potential Additional Revenue: It appears unlikely that the City will apply for PWTF loans for major transportation facilities.

CONTINGENCY PLANS IN THE EVENT OF REVENUE SHORTFALL

Some of the revenue forecasts are for revenues that are very secure, and highly reliable, but other revenue forecasts are for sources that are volatile, and therefore difficult to predict with confidence. The revenues forecast from existing sources total \$ 19.0 million, compared to the cost of \$43.0 million. Because the existing revenues from these sources are \$ 25.0 less than the cost of the projects, the City has several options:

- Increase the amount of revenue from existing sources.
- Adopt new sources of revenue.
- Change the Land Use Element to reduce the amount of development, and thus reduce the need for additional public facilities.
- Lower the level of service standard, and therefore reduce the need for some transportation improvements.

The GMA concurrency requirements must be met regardless of funding shortfalls. Concurrency is described in more detail in Chapter 4, but in essence states that roadway capacity improvements must be achieved to meet the city's adopted level of service standards. Under current state law, if concurrency is not met, restrictions on development must be imposed on the City.

REVENUE FROM NEW SOURCES

As indicated in the previous section, if the revenue forecasts do not pay for the needed transportation improvements, the City of Monroe could adopt one or more new sources of revenue to make up the shortfall. Several sources of revenues and estimates of potential revenue from these the likely sources are described below:

IMPACT FEES

Source of Revenue: The Growth Management Act (GMA) created RCW 82.02.050 et seq. that authorizes impact fees for streets and roads. The fees must be based on, and used for, specific improvement projects in the Transportation Plan. The projects must be “system improvements” that provide service and benefits to the community, and not “project improvements” that provide service and benefits to individual developments. Impact fees are calculated by identifying the cost of the road projects that serve new development, adjusting for other sources of revenue that would pay for part of the same projects, and then dividing the remaining cost by the number of trips that the road projects will accommodate. The result is the cost per trip. The amount of impact fee to be paid by each new development is calculated by multiplying the cost per trip times the number of trips that the new development will add to the roadway system.

Potential Additional Revenue: The forecast of impact fees assumes that they would supplement or replace the existing program of mitigation fees. Impact fees can only be imposed if the City prepares and adopts an impact fee ordinance that follows the requirements of RCW 82.02.050 et seq. The development and adoption of an impact fee ordinance typically requires several months to complete. However, for informational purposes an estimate of an impact fee was calculated. Approximately \$4.9 million of the projects in the Transportation Plan could be allocated to impact fees to be paid by city development. Dividing this figure by the total number of new PM peak hour trips over the next 20 years yields an estimated cost of \$1,367 per PM peak hour trip. A single-family dwelling unit typically generates one PM peak hour trip. The estimate of additional revenue is based on 15% of the impact fee cost for the first 5 years and the other 85% in the last 15 years. Note that impact fees would not apply to properties in the North Kelsey development, as they would be assessed separately for roadway improvements in accordance with the mitigation described in the Final EIS for the project.

RECIPROCAL MITIGATION WITH SNOHOMISH COUNTY

Source of Revenue: The City of Monroe and Snohomish County could enter into an agreement to collect mitigation fees from development in each other's jurisdiction and remit it to the other jurisdiction for impact by new development on transportation facilities.

Potential Additional Revenue: It is estimated that development in the County would pay \$2.5 million during the next 20 years to mitigate its impact on Monroe streets. This amount is inclusive of the Urban Growth Area development. Calculations show that the potential impact of County growth on city streets could be

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substantially higher than this amount. The forecast is kept low, especially in the first five years, since the ability of the City to collect mitigation for all of those impacts may be limited.

PROCEEDS FROM GENERAL OBLIGATION BOND

Source of Revenue: The City of Monroe can issue bonds to borrow money for a variety of purposes. The legal limit on such borrowing is an amount equal to 2.5% of the taxable value of the property in the City. The City Council has a policy of not borrowing more than 90% of the legal limit. In order to borrow the funds, and to authorize an additional property tax to repay the bonds, the City would be required to obtain approval by 60% or more of the voters. Another option could be a councilmanic bond, which can be approved by the council without a vote.

Forecast: The City's taxable value in 2009 (after existing debt is retired) is estimated to be \$2.2 billion. If the voters approved 90% of the maximum legal amount, consistent with Council policy, the City could issue bonds totaling \$49,470,000. The Transportation Commission considered what portion of these bonds would be a reasonable target for the City of Monroe. The Commission recommended that a bond amount not to exceed \$10 million be included for funding consideration. The bond would be repaid by an increase in property taxes. Assuming that the entire \$10 million would be bonded at one time, the annual property tax on a \$390,000 house would be approximately \$140 per year for 20 years.

Potential Additional Revenue: The total debt could be issued after 2008, when existing debt has been repaid.

COUNTY LOCAL OPTION GAS TAX

Source of Revenue: Snohomish County can adopt a local option gas tax not to exceed 10% of the state gas tax. The proceeds would be shared by the County and the cities.

Forecast: No forecast is available.

Potential Additional Revenue: No forecast is available.

BUSINESS AND OCCUPATION TAX

Source of Revenue: The City has the authority to impose a local tax on the gross revenue of businesses and occupations in Monroe. The tax could be dedicated to paying for transportation improvements.

Potential Additional Revenue: Other cities that have enacted this tax use it for ongoing operations, and not for transportation improvements. Relatively few cities have enacted the "B&O Tax," therefore it is not considered likely to be adopted by Monroe for the purpose of financing transportation improvements.

BUSINESS LICENSE

Source of Revenue: The City of Redmond used its authority to license businesses to impose a license fee per employee that is used to build transportation improvements that benefit businesses.

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Potential Additional Revenue: Monroe does not have the large businesses that Redmond has; therefore a business license for transportation improvements is not likely to generate sufficient revenue to pay for transportation improvements in Monroe.

COMMERCIAL PARKING TAX

Source of Revenue: Washington law authorizes cities to charge a tax on “commercial parking.” The tax revenue can be used for a variety of purposes, including transportation improvements. Known as the “SeaTac Tax” it works best where there is a significant amount of parking in lots for which a fee is charged, and the tax can be collected along with the parking fee.

Potential Additional Revenue: Monroe does not have the large number of paid parking lots that SeaTac has, therefore a commercial parking tax for transportation improvements is not likely to generate sufficient revenue to pay for transportation improvements in Monroe.

ESTIMATED REVENUE

Total revenue available to the City of Monroe over a 20-year period is estimated in **Table 7-2**. The estimated revenue projection is \$19.0 million (current dollars) from existing sources of revenue, plus \$22.4 million from potential additional revenue for a 20-year total of \$ 41.4 million. The potential additional revenue includes the currently negotiated and anticipated mitigation funds to be paid to the City by the North Kelsey developers. The total estimated revenues are approximately \$1.6 million less than the cost of the projects.

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Table 7-2. Projected Revenue for Transportation Improvements

Funding Source	2006-2010 Amount	2011-2025 Amount	20 Year Total
Existing Revenue Source			
Grants	\$ 1,040,255	\$ 1,500,000	\$ 2,540,255
Real Estate Excise Tax	1,125,000	3,375,000	4,500,000
Concurrency Mitigation Fees	6,396,000	0	6,396,000
Developer Commitments	4,567,000	0	4,567,000
Proceeds from Sale of Property	1,000,000	0	1,000,000
General Fund	0	0	0
Local Improvement Districts	0	0	0
Public Works Trust Fund Loan	0	0	0
Total From Existing Revenues	\$14,128,255	\$ 4,875,000	\$ 19,003,255

Potential Additional Revenue			
Additional Real Estate Excise Tax	\$ 0	\$ 0	\$ 0
Additional General Fund	0	0	0
Impact Fees	1,000,000	3,900,000	4,900,000
Proceeds from Sale of Property	0	5,000,000	5,000,000
Reciprocal Mitigation: Snohomish County	500,000	2,000,000	2,500,000
Proceeds from General Obligation Bond	1,200,000	8,800,000	10,000,000
County Local Option Gas Tax	0	0	0
Business & Occupation Tax	0	0	0
Business License (i.e. Redmond's BTTI)	0	0	0
Commercial Parking Tax	0	0	0
Total Potential Additional Revenues	\$ 2,700,000	\$ 19,700,000	\$ 22,400,000
Grand Total			
	\$ 16,828,255	\$ 24,575,000	\$ 41,403,255

CHAPTER EIGHT

Monitoring and Evaluation

The Comprehensive Transportation Plan, a long-range plan with the horizon year 2025, anticipates the needs and conditions of the future transportation system, enabling the City to plan for its current and future needs. Nonetheless, the transportation network is dynamic, constantly changing due to circumstances beyond the scope and influence of this plan. Hence, regular updates are necessary to ensure the plan remains current and relevant.

ANNUAL UPDATES

The Comprehensive Transportation Plan will be amended annually as part of the City's regular Comprehensive Plan amendment cycle, which ensures proposed changes go through a public review process before the amended plan is adopted by the City Council at the end of the calendar year. In preparation for the annual amendment cycle, the City will review the plan and propose updates as needed. These proposed updates may be due to shifts in City priorities, the availability of new information, or the relevance of certain plan components.

REEVALUATION

During the annual reevaluation process, the City can evaluate progress made in implementing the plan, as well as identify new needs that have arisen since the previous update. The City will review its street, non-motorized, and transit systems, and assess whether the Plan is adequately addressing the implementation strategies necessary to ensure the transportation infrastructure continues to grow in line with the City's objectives.

As part of this process, the City will review its future projects list and update the Capital Facilities Plan as needed. It will also review and update the Policies and Funding Chapters, in order to remain consistent with the City's vision and current with available funding strategies.

TECHNICAL INFORMATION

The Transportation Plan contains technical data which is used in other elements of the Comprehensive Plan. As part of the annual amendment cycle, the City will update the technical information, such as traffic volumes, current level of service, roadway classifications, and transit route and ridership information and update other affected elements of the Comprehensive Plan. The evaluative process will make use of this new information and enable the City to measure system changes over a period of time leading to informed decisions in planning the future system.

MODEL UPDATES

The City will update the traffic model on a regular basis, every few years, as new land use, employment, and housing data becomes available. Model updates are important as they ensure the City has an accurate understanding of how land use patterns, employment, and other factors impact future transportation conditions. The model also provides an understanding of the impacts associated with different projects, allowing the City to devise a

revised list of future projects to improve capacity and safety, as well as achieve other City priorities. The City Council can make informed policy decisions using the updated traffic model.

COMPREHENSIVE PLAN CONSISTENCY

The annual evaluation process is an opportunity to ensure the Comprehensive Transportation Plan is consistent with other elements of the City's Comprehensive Plan, including the Land Use Element, Economic Development Element, the City's Parks, Recreation and Open Space Plan, and the Capital Facilities Plan. Hence, as part of the annual amendment cycle, the City will ensure these plan components are consistent with and supportive of each other and reflects the City's most recent assumptions about traffic patterns, growth and development.

MULTI-YEAR UPDATES

Although the City will go through a formal process of updating this Plan annually, a more exhaustive process is periodically necessary. Hence, a thorough rewrite of the Plan should be conducted every five to eight years. This endeavor would include a broad public outreach effort with input from neighboring jurisdictions, state and regional agencies, and Monroe residents and businesses. Much like the process for the 2006 update, it would present an opportunity to holistically examine the current transportation system and lay the framework for development of the future system.

CHAPTER NINE

Transportation Improvement List

The City of Monroe's transportation plan provides for a financially-balanced list of investments that will meet the City's transportation objectives over the next twenty years. These investments will be phased during the 20-year period based upon the transportation needs and the funding available to the City.

The local transportation recommendations identified in Chapters 4 (streets) and 5 (non-motorized) are primarily the responsibility of the City to implement and are the focus of the projects listed in this chapter. The transit recommendations (Chapter 6) are primarily the funding responsibility of Community Transit and are will be addressed separately through negotiations between the City and the transit agency.

Table 9-1 shows a list of street and non-motorized projects that are recommended for implementation by 2025. The City's Transportation Commission considered an initial list of projects whose value approached \$55 Million. In order to meet the City's expected funding levels (refer to Chapter 7), the Commission conducted a rating evaluation using the performance of each project relative to various objectives related to transportation performance, economic development, and funding availability. These evaluation results are shown in **Appendix B**.

This process resulted in the list shown in **Table 9-1**, totaling approximately \$43 Million (\$30 Million for street projects; \$13 Million for non-motorized projects). Current funding availability covers \$13 Million of these needs, leaving around \$30 Million to be prioritized for inclusion within the City's Transportation Improvement Program (TIP). The street projects comprise 57 percent of the unfunded needs, with non-motorized projects covering the remaining 43 percent.

The Transportation Commission recommends that new funds be initially allocated approximately 80 percent to streets and 20 percent to pedestrian and bicycle facilities. This allocation will give priority to important street projects that will help improve the City's traffic conditions. Once these traffic needs are addressed, a higher proportion of funds can be allocated in later years of the plan to completing the non-motorized system. Similarly, should funding shortfalls occur, the Transportation Commission recommends that funds be reduced in a 60%/40% ratio between streets and nonmotorized facility projects.

The Commission has also identified several additional projects for implementation should funding become available. These projects, listed at the end of Table 9-1, are included as part of the City's long-range transportation needs.

**Table 9-1
Transportation Improvement List**

Project Number	Project Description	Cost and Funding Information					Project Rating
		Estimated Cost (\$2006)	SEPA Funds Collected	Other Committed Funding	Percent Funded	Unfunded Amount	
Fully Funded Projects							
5	US 2/Kelsey Intersection Improvements - Construct a second eastbound left-turn lane.	1,800,000	18,000	1,782,000	100%	0	NA
8	Kelsey/Tjerne Place Signalization - Install a traffic signal at the intersection of Kelsey with Tjerne Place.	600,000	-	600,000	100%	0	NA
9	Chain Lk Rd/Kelsey Intersection - Construct a roundabout.	1,600,000	-	1,600,000	100%	0	NA
6	US 2/Chain Lake Rd Improvements - Install 2nd SB lane from Tjerne Place to US 2 and right-turn only lanes on US 2 for both EB and WB traffic at Chain Lake Road.	3,000,000	-	3,000,000	100%	0	NA
7	Tjerne Place - Kelsey to Chain Lake - Construction of a new street between North Kelsey and Chain Lake Road.	1,500,000	-	1,500,000	100%	0	NA
14	E/W Connector (north) - Construct new 2-lane collector between 191st Ave and Chain Lake Road w/ bike lanes, sidewalks, median within	2,800,000	-	2,800,000	100%	0	NA
Sub-Total Funded Projects		11,300,000	18,000	11,282,000	100%	0	
High Priority Street Projects							Max 87
4	Fryelands Blvd/Main Street Roundabout - Install a roundabout	850,000	283,000	-	33%	567,000	51
11	US 2/Main Street/Old Owen Intersection - Add right turn lane from eastbound Main onto US 2.	600,000	42,000	328,000	62%	230,000	42
21	Chain Lake/Tjerne Place Signalization - Install traffic signal.	480,000	-	-	0%	480,000	40
10	Tjerne Place - Chain Lk Rd to Woods Ck Rd - Construction of a new street between Chain Lake Road and Woods Creek Road.	1,180,000	-	250,000	21%	930,000	40
2	179th/Main Signalization - Replace 4-way stop with a signal.	480,000	5,000	-	1%	475,000	40
17	179th Ave/147th St Signalization - Install traffic signal and reconstruct NW corner of intersection for truck traffic. Widen 147th for separate right and left turn lanes.	540,000	3,000	-	1%	537,000	37
1	Kelsey/Main Signalization - Install traffic signal.	600,000	7,000	-	1%	593,000	36
22	Woods Ck Rd/Tjerne Place Signalization - Install traffic signal. Add SB right turn pocket on Woods Ck Rd.	480,000	-	-	0%	480,000	34
24	Old Owen/Oaks Signalization - Install traffic signal.	400,000	-	-	0%	400,000	34
20	Fryelands Blvd/Tye St Signalization - Install traffic signal.	400,000	-	-	0%	400,000	32
19	Fryelands Blvd/146th St SE Signalization - Install traffic signal.	400,000	-	-	0%	400,000	29
16	Kelsey/Blueberry Signalization - Install traffic signal and add NB lane on Kelsey from North St to US 2.	1,400,000	67,000	-	5%	1,333,000	29
18	179th Ave/154th St Signalization - Install traffic signal.	480,000	-	-	0%	480,000	26
13	Woods Creek Rd - Phase 1 - Install pedestrian/bike trail with curb/gutter and drainage system on north/west side of Woods Creek Road from Oak Street to the existing trail entrance.	1,350,000	155,000	-	11%	1,195,000	17
25	Chain Lake Rd - Phase 2 - Widen road to a 3-lane section with bike lanes, curb, gutter and sidewalk from Kelsey to Brown Road.	8,000,000	160,000	-	2%	7,840,000	9
23	Oaks St Widening - Woods Ck Rd to Old Owen - Continuation of Tjerne Place to Old Owen.	1,050,000	-	-	0%	1,050,000	12
Sub-Total Street Projects		18,690,000	722,000	578,000	7%	17,390,000	
High Priority Non-Motorized Projects							Max 175
NM 2	Main St - Fryelands Blvd to N Kelsey St -Add bike lane to both sides, special treatments needed at roundabouts and corner extensions.	750,000	-	-	0%	750,000	90
NM 3	179th Ave SE - US 2 to Main St -Upgrade walkways to sidewalks and add bike lanes to both sides.	4,000,000	-	-	0%	4,000,000	60
NM 5	Stevens Pass Greenway -Construct a continuous multi-use trail through the City of Monroe along US 2. May overlap with the Centennial Trail and existing US 2 multi-use paths.	-	-	-	0%	-	60
NM 7	154th St/Blueberry Ln - 179th Ave to Kelsey St -Add bike lane to both sides, connecting to existing bike lanes. Add sidewalks to the south side between 179th and 182nd Ave SE and to the north side between 179th Ave and King Street.	800,000	-	-	0%	800,000	60
NM 4	154th St - Fryelands Blvd to 171st Ave -Add bike lane to both sides, connecting to existing bike lanes.	220,000	-	-	0%	220,000	55
NM 5	US 2 Pedestrian Facilities - Cascade to Fryelands - Construction of a pedestrian pathway on the north side of US 2 from Roosevelt (Fryelands) to Cascade View Drive.	1,000,000	-	-	0%	1,000,000	55
NM 6	North Kelsey St - Main St to US 2 - Restripe bike lane on one side and add a bike lane and rebuild curbs on the other side.	700,000	-	-	0%	700,000	55
No Number	Centennial Trail - Continuation of the Centennial Trail through the City of Monroe. The trail is anticipated to follow the existing trail along Fryelands Boulevard, then head east in the vicinity of the Skykomish River to Sky River Park and Al Borlin Park, where it will cross the Skykomish River.	1,500,000	-	-	0%	1,500,000	50
NM 8	Main St - Kelsey St to Railroad Ave -Add signage for bike route.	30,000	-	-	0%	30,000	50
NM 5	US 2 Pedestrian Facilities - Lewis to Cascade - Construction of pedestrian facilities along SR2 from SR203 to Cascade View Drive. From SR203 to SR522, install curb, gutter, and sidewalk along the south side of SR2 and reduce size of driveways. The sidewalk will become a trail at the east ROW line of SR522, cross to north side of SR2 west of the SR2/SR522 intersection and continue to Cascade View Drive.	770,000	-	-	0%	770,000	45
NM 9	Main St - Railroad Ave to US 2 -Add bike lane to both sides, special treatments needed at railroad crossing.	80,000	-	-	0%	80,000	35
NM 10	Railroad Ave/Simons Rd - Main St to Al Borlin Park -Stripe bike lanes between Main St and Al Borlin Park	140,000	-	-	0%	140,000	30

**Table 9-1
Transportation Improvement List**

Project Number	Project Description	Cost and Funding Information					Project Rating
		Estimated Cost (\$2006)	SEPA Funds Collected	Other Committed Funding	Percent Funded	Unfunded Amount	
NM 11	Old Owen Rd - US 2 to east city limits -Add sidewalks to one side of the roadway.	790,000	-	-	0%	790,000	30
NM 2	W. Main Street Pedestrian Facilities - Installation of curb, gutter and sidewalks along Main Street between the roundabouts at Tester Road and Fryelands Boulevard.	860,000	-	-	0%	860,000	25
NM 14	Loop Trail Connector -Construct new multi-use trail between trails along Foothills Rd and Rainier View Rd, near the bypass ROW.	1,350,000	-	-	0%	1,350,000	5
Sub-Total Non-Motorized Projects		12,990,000			0%	12,990,000	-
TOTALS							
Total Street + Non-Motorized Projects		31,680,000	722,000	578,000	4%	30,380,000	
Total Funded + Street + Non-Motorized Projects		42,980,000	740,000	11,860,000	29%	30,380,000	
Other Identified Projects							
26	Woods Creek Rd - Phase 2 - Widen road to a 3-lane section with bike lanes, curb, gutter, and sidewalk from Oak Street to the City limits.	8,000,000	-	-	0%	8,000,000	
28	US 2/179th Ave Right Turn Lanes - Construct right-turn only lanes on US 2 at 179th Avenue for both EB and WB traffic.	1,000,000	-	-	0%	1,000,000	
29	US 2/Fryelands Through Lanes - Convert the right-turn only lanes on US 2 at Fryelands Boulevard to through lanes and extend beyond the intersection.	2,000,000	-	-	0%	2,000,000	
NM 1	Village Way - Add bike lanes between both ends of Main St, allowing connections to City Hall and the Library	260,000	-	-	0%	260,000	
NM 12	Roosevelt Rd - US 2 to west city limits-Add multi-use trail from US 2 to city limits.	420,000	-	-	0%	420,000	
NM 13	179th Ave SE - US 2 to north city limits -Add bike lane to both sides and walkway path to one side of the roadway	2,150,000	-	-	0%	2,150,000	
Total Other Identified Projects		13,830,000	-	-	0%	13,830,000	

