Appendix D: Frederickson Community Plan

The Frederickson Community Plan's narrative text and policies are in addition to the Countywide Comprehensive Plan narrative text and policies and are only applicable within the Frederickson Community Plan Boundary.

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Vision Statement

A diverse, healthy, and sustainable economic center for the community and Pierce County will be developed.

Commercial and industrial development will be well designed and will respect the character of residential areas, and new residential developments will be designed and located in a manner that does not unduly restrict the use of adjacent industrially and commercially designated properties.

Natural resources, natural environment and ecosystems, and natural processes will be respected, protected, maintained, and where degraded, be restored.

The community envisions that as it grows in the future:

Nonmotorized
transportation facilities
including sidewalks,
pathways, and trails will
be planned and
systematically developed
within the community so
that in the future residents
can travel to schools,
parks, commercial areas,
and other destinations
safely without relying
upon the automobile.

Adequate public infrastructure and services including, but not limited to, roads, water, sewer, recreation, and schools will be available prior to or concurrent with actual need.

Neighborhoods will be more livable with new developments being designed in a manner which supports interaction of residents and pedestrian mobility, and existing neighborhoods protected from incompatible or more intense uses.

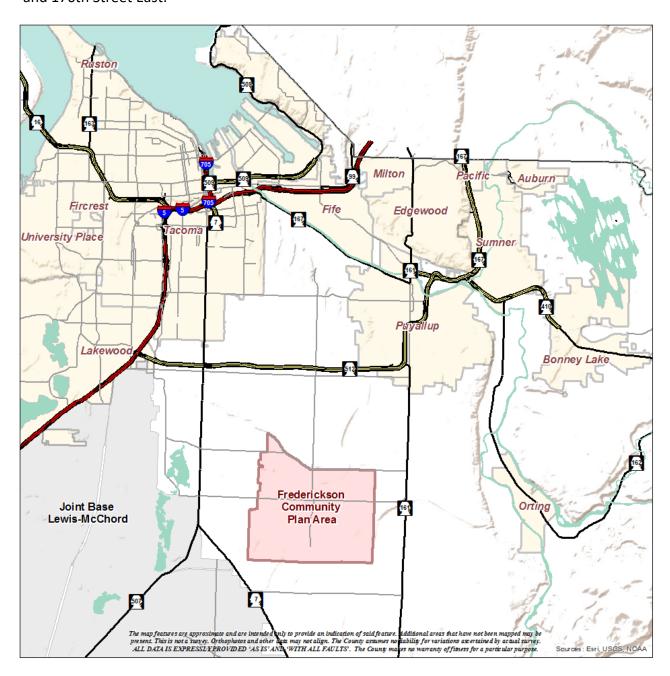
The community realizes that continued growth within Frederickson and the surrounding communities is inevitable. The challenge to the community is not to stop growth, but to control and plan for growth to occur in a manner which will have beneficial impacts on the community. This plan is premised on the idea that through proper management of growth, the community can avoid, minimize, or mitigate many existing and future problems. Responsible growth is the central concept of this plan. The ideals set forth above are of paramount importance to the community. The community is also sensitive to the rights of the landowner. The impact of the community plan on these rights must be carefully considered to ensure landowners will not be deprived of the reasonable use of their land.

Achievement of the plan's goals will help ensure that a high-quality living environment exists in the community. To strive for anything less would deprive current and future generations of the abundant benefits associated with a healthy, natural environment; quality schools, roads, and parks; livable neighborhoods; sustainable commercial and industrial development; and a healthy local economy.

Chapter 1: Introduction

OVERVIEW OF THE PLAN AREA

The Frederickson Community Plan area is located approximately three miles south of SR-512, midway between Pacific Avenue (SR-7) and Meridian Avenue East (SR-161) in central Pierce County. The geographic center of the community is near the intersection of Canyon Road East and 176th Street East.





The plan area is roughly 12 square miles in size and encompasses a little over 8,000 acres of land. A key feature of the community is the Frederickson Employment Center, which is the largest designated industrial area in unincorporated Pierce County and designated as a regional Manufacturing and Industrial Center (MIC). Major transportation routes in the community include Canyon Road East, Brookdale Road East/160th Street East, and 176th Street East. The community is also served by Tacoma Rail, which provides regularly scheduled freight service to industrial users in the area.

One of the most significant environmental features in the community is Clover Creek. This creek is salmon bearing and is one of the largest creeks within Pierce County's urban area. Aside from its ecological value, the creek played an essential role in the early settlement of the community, with many of the first settlers in Frederickson settling along its shores. Another significant environmental feature of Frederickson is the Clover-Chambers Creek Aquifer that underlies the entire community, as well as most of Pierce County's urban growth area.

COMMUNITY ISSUES

Frederickson, like many communities in Pierce County, has experienced tremendous growth. This period of growth has transformed the area from a quiet, rural community to a suburban community of many homes and businesses.

The population of Frederickson doubled between 1990 and 2000, increasing from approximately 7,350 persons to more than 14,000, and again grew substantially to 25,000 persons by 2015. Growth of industry and business within the area has also been significant with the arrival of The Boeing Company, Toray Composites, Port of Tacoma, and dozens of other businesses.



The rapid growth in population, homes, and business in the area has not come without a cost, however.

• Between 1980 and 2000, more than 2,000 acres in the area were platted and developed with residential and commercial uses.

- Measurable loss of open space, tree cover, wildlife habitat, and a general decline in the quality of the natural environment has occurred.
- The volume of traffic on local roads has increased significantly. Average traffic volumes on Canyon Road East near 176th Street East, for example, have increased from approximately 12,000 vehicles per day in 1990 to nearly 25,000 vehicles in 2000.
- Local schools have become overcrowded. Student enrollment in the local school district has grown substantially, increasing by more than 2,500 students from 1995 to 2000, and further increasing by more than 3,000 students between 2000 and 2018. Estimates indicate that the high rate of growth is expected to continue in the community into the foreseeable future.

The continued growth of population and business within Frederickson and surrounding communities is inevitable. The challenge is not to stop growth, but to control and plan for growth to occur in a manner which will have beneficial impacts on the community. With this in mind, representatives of the community have come together to develop a plan for the future growth of Frederickson.

ISSUES PRESENTED TO THE FREDERICKSON LAND USE ADVISORY COMMISSION

As part of the 2016-2020 Community Plan update, several issues were raised by residents and presented to the Land Use Advisory Commission:

- Narrow roads/need for increased road width to accommodate parking;
- Parking on streets for overflow from residential projects;
- Long, dead-end roads;
- The Community Plan area not located in the transit district;
- Densities not consistent with neighborhoods;
- Developers should go outside their project to develop infrastructure;
- Developing as an urban area without the urban infrastructure;
- Lack of improved north-south arterials;
- Not enough schools close to where people live with 50%+ of students in portables;
- Need for solutions/policies specific to Frederickson to address such issues as compatible development adjacent to the Employment Center designation and the Canyon Road freight corridor; and
- Streets that are widened until they reach the next collector or arterial.

This plan is premised on the idea that through proper management of growth, the community can avoid, minimize, or mitigate many existing and future problems. Responsible growth is the central concept of this plan. Failure to appropriately plan for this growth will undoubtedly contribute to further declines in the quality of life experienced by those who live and work in the community.

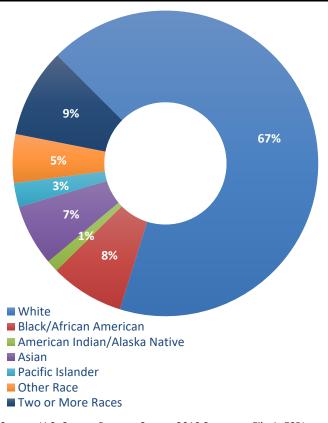
DEMOGRAPHICS

Frederickson is home to over 29,000 people with an average of 3.06 persons per household. Males and females each make up 50 percent of the population.

Approximately 67 percent of the residents are white. Interracial, Black/African American, and Asian make up the next highest categories, totaling 24 percent. Other races make up 5 percent, while Pacific Islanders and American Indian/Alaska Native make up the lowest percentages at 3 percent and 1 percent, respectively.

The majority of residents over 18 years of age are high school graduates and 63 percent have at least some college education.

Figure D-1: Frederickson Race Distribution (2019)



Source: U.S. Census Bureau, Census 2010 Summary File 1. ESRI forecasts for 2019 and 2024. Esri converted Census 2000 data into 2010 geography. Esri estimated block group data, which is used to estimate polygons or non-standard geography. 1990 Census Blocks.

Note: all 2019 statistics are estimates provided by ESRI.

2019 STATISTICS

29,228



Population

Median Age





Female Population

Male Population





3.06

Average Household

470.005

\$79,895

Median Household







\$31,359

Per Capita Income

\$197,718

Median Net Worth





No High School

Diploma

44%



29%

Some College

19%

High School Graduate Bachelor's/ Grad/Prof Degree

HISTORY OF FREDERICKSON



Naches Pass Trail went through the community near Clover Creek and the first Military Road was established.

1849: Earliest record of Euro-American settlements (Hudson Bay Company).

1850s: Elk Plain School founded (later called Clover Creek District #4).

1900: Tacoma Eastern rail line extended to Frederickson.

1912: Yard facilities and alignment change constructed at Salcich Junction.

1935: Columbia Powder Plant built.

1940s: Bonneville Electric Power transmission lines and a natural gas pipeline built.





Population begins to increase and major improvements are made to Canyon and 176th Street East to allow easy access to the industrial center.

1950s: Farming is a major activity in the area and SR-512 construction begins (completed in 1972).

Late 1960s: Industrial activity begins to increase; Randles Sand and Gravel and Port of Tacoma obtained land.

1990: Boeing built a skin and spar facility on the former Columbia Powder Plant site.

1998: City of Tacoma reestablished rail service to the area.





2003: The Frederickson Community Plan was adopted. There were more than 14.000 residents.

The community continues to be characterized by rapid urban growth.

EARLY HISTORY THROUGH THE 1900s

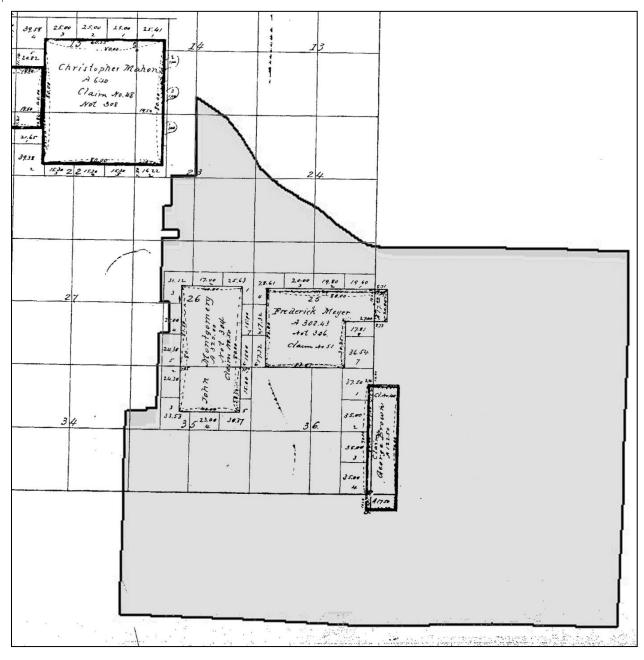
It is known that Native Americans were present in the Pacific Northwest long before Captain George Vancouver first explored the coastline of Puget Sound in 1792. Some of the more commonly known of these peoples are the Puyallup, Steilacoom, Nisqually, and Muckleshoot who lived and traveled throughout the Puget Sound area, including present day Pierce County. Trade and communication between these peoples and other Native American peoples east of the mountains occurred through the use of a series of ancient trails that ran through mountain passes. One of these ancient routes, the



Naches Trail, passed through the Frederickson community near Clover Creek.

Records of the Hudson Bay Company note Euro-American settlements in the area as early as 1849. Many of these early pioneers settled in the vicinity of Clover Creek. Christopher Mahon was one of the earliest homesteaders to the area, locating his donation land claim along Clover Creek near the Naches Trail in the area that is the present Brookdale Golf Course around 1850. It was on Mr. Mahon's claim that the first immigrant wagon train into western Washington, the Longmire party, camped in October 1853 before disbanding. Mr. Mahon is given credit for naming Clover Creek, so naming it "because wild clover was so abundant along the creek." He is also given credit for founding the first school in the community sometime in the late 1850s, Elk Plain School, later called Clover Creek School District #4. Remnants of Mahon's early settlement of the area, including the family cemetery, still exist. Another early settler of the area was Fred K. Meyer, who also located his donation land claim along Clover Creek near the Naches Trail between present day Old Military Road and 176th Street East. Mr. Meyer played an important role in the early years of the Clover Creek School District, serving as its clerk from 1866 to 1880, and donating land to the district for the siting of a new schoolhouse in 1897. The present day Clover Creek Elementary School is located on this land.

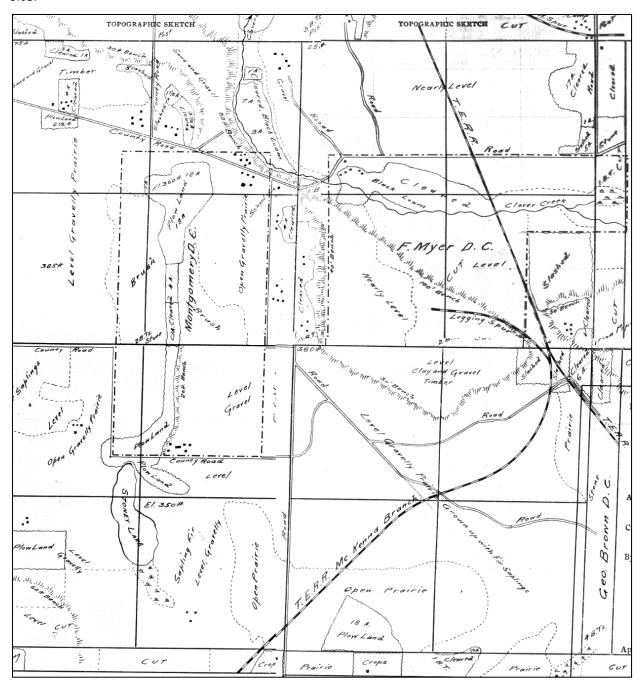
LOCATIONS OF DONATION LAND CLAIMS IN THE VICINITY OF THE FREDERICKSON AREA



The first military road into the area was established along the Naches Trail in the mid 1850s. This road linked Fort Walla Walla and Fort Steilacoom. Present day Old Military Road is a remnant of that original road. During the Indian War of 1855-56, Camp Montgomery was constructed along this road near land owned by another early settler of the area, John Montgomery. Fort Hicks, a blockhouse built by the Washington Territorial Volunteers, was located at the camp. A stone monument honoring this camp is located just east of the present day intersection of Old Military Road and 36th Avenue East.

EARLY 1900s ACTIVITY IN THE VICINITY OF FREDERICKSON AREA DONATION LAND CLAIMS

Information from 1909 timber survey, conducted by Pierce County, shows donation land claims in Frederickson area, topography, land use, roads, and the Tacoma Eastern rail lines during that time period. Note the extensive amount of cleared and cultivated lands, prairies, and school site.



THE EARLY 1900s THROUGH THE EARLY 1960s

Rapid growth in Tacoma, the harvesting of timber and other natural resources in the area, and the desire to develop a rail route to Mount Rainier resulted in the first rail line being extended to Frederickson in 1900 by the Tacoma Eastern Railroad. By 1911, the railroad was carrying more than 100,000 passengers a year between Tacoma and Mount Rainier. In 1912, yard facilities and a change of alignment were constructed at Salcich Junction just southwest of



the present day intersection of Canyon Road East and 176th Street East. A sawmill was operated near this junction between 1910 and 1920 by Olaf B. Frederickson. It is from this individual that the community's name is said to be derived. A post office, store, and railway stop were also located at the junction. Several of these buildings still exist. In 1919, the Tacoma Eastern Railroad became owned by the Milwaukee Railroad.

In 1935, the Columbia Powder Plant was built just east of Salcich Junction. The explosives manufacturing plant was the first industrial operation other than sawmills to locate in the area. The plant and its related facilities occupied several hundred acres and produced explosives until its closure in 1976. Bonneville Electric Power transmission lines were constructed to run diagonally across the community in the 1940s, as was a natural gas pipeline.

In the early 1930s, the single school in the community became overcrowded due to an influx of people from the Midwest who were fleeing the dust bowl of that time, forcing the school to convert a playshed at the school into an additional classroom. In 1938, a new colonial style school house was constructed at the site, replacing the prior two-room school house. After the merger of the Clover Creek and Bethel School districts in 1956, the school was further expanded with the construction of two brick additions and a playshed. The colonial style school was eventually replaced in 1981 with the present day Clover Creek Elementary school building. In 1981, the original colonial building was demolished and a new office, library, and several classrooms were built. The entire school was rebuilt in 2012, though architects were able to salvage the historic cupola from the original 1938 structure.

Other than the Columbia Powder Plant, Frederickson remained rural throughout this period. There were scattered residents on farms or wooded lots. Timber operations by companies such as Weyerhaeuser or individual timber land owners were carried out in the community. Farming and livestock production continued to be the primary activity in the area. Several large dairies operated along Clover Creek, including the Mayflower, Honey Dew, and Dragonetti dairies. Old barns from these dairies still exist in several locations in the community. The Clover Creek

Grange Association was established in March of 1927 and a grange hall was constructed near the Clover Creek School. Farming and dairies continued to be major activities in the area through the 1950s and early 1960s. Aerial photographs of the area taken in 1955 show the area to be mostly agricultural fields, pastures, prairies, and forest, with only a few hundred widely-scattered homes.

THE 1960s THROUGH THE 1990s

Frederickson's population began to increase dramatically with the beginning of the development of SR-512 beginning in 1956 and completed in 1972. Other improvements to the transportation system in the community, such as the construction of 176th Street East and the extension of Canyon Road East, were also made during this time period, allowing for easy commuting to major employment centers in the region making Frederickson a more attractive place to live. Consequently, many individuals began to subdivide large tracts of land in the community for new home sites. More than 3,000 additional housing units have been built since the adoption of the community plan in 2003.

Industrial activity within the community has also been significant during this period. Mineral extraction operations have operated in the Frederickson area for many years. Randles Sand and Gravel has been operating since 1969 and continues to be a significant gravel operation in Pierce County. In 1968, the Port of Tacoma purchased about 500 acres of land in the area for industrial development purposes. The Port has maintained a strong presence in the community since this time to the present day and has been directly involved in attracting many new businesses to the area, including The Boeing Company, Toray Composites, and Medallion Foods. The Boeing Company's presence in the area began in 1990 with the construction of its skin and spar facility located at the former Columbia Powder Plant site. This facility contains more than one-million square feet of building and currently employs approximately 1,575 people. Currently, dozens of small, medium, and large industrial operations are located within Frederickson. Industrial growth continues to the present day.

Rail service in the Frederickson area ceased for several decades with the bankruptcy of the Milwaukee Road in 1964. The City of Tacoma reestablished rail service to the area in 1998 with the purchase and restoration of the rail lines in the area. Tacoma Rail now provides freight service to several manufacturing operations in Frederickson and may provide limited tourist passenger service to Mount Rainier in the future.

Today, the community continues to be characterized by rapid growth and change. The community is currently attempting to address the long-standing central issue of how to manage impacts from rapid growth through planning efforts mandated by the Washington State Growth Management Act. The Frederickson Community Plan is a component of that effort.

HISTORY OF THE COMMUNITY PLAN

PURPOSE AND USE OF THE COMMUNITY PLAN

This community plan is intended to supplement and further refine the Pierce County Comprehensive Plan. Where the community plan provides specific guidance regarding land uses, the policy language of this plan will govern. Where the community plan does not provide specific guidance, the reader is directed to utilize the land use objectives, principles, and standards of the Pierce County Comprehensive Plan.

The Frederickson Community Plan gives the residents, businesses, property owners, and the County a clear, more detailed sense of how the community should develop in the future and what standards could be utilized to control the character of the community. The desired outcomes of the Frederickson Community Plan include:

- Develop a long-range vision for the Frederickson community;
- Evaluate the vision for the Frederickson community in light of the Pierce County Comprehensive Plan and make refinements as necessary to ensure consistency between the overall Countywide plan and the community plan; and
- Identify actions necessary to implement the policies of the community plan, including: adopting or revising land use regulations; identifying priorities for use of public funds to develop physical improvements, such as roads, sidewalks, street landscaping, street lights, water-related improvements, and park development; implementing social programs, economic programs, etc.

DEVELOPMENT OF THE 2003 FREDERICKSON COMMUNITY PLAN

Development of the 2003 Frederickson Community Plan incorporated a variety of public involvement strategies, including:

- The formation of Community Planning Boards (CPB) and committees;
- Public workshops, open houses, public hearings; and
- Various surveys.

These public involvement techniques ensure that the plan was developed as a representation of the general will and values of the community.



COMMUNITY PLANNING BOARD

The development of the 2003 Frederickson Community Plan could not have been accomplished without the Community Planning Board (CPB). The CPB was appointed in the spring of 2000 and consisted of 18 members and two alternates representing a variety of interests and geographic locations of the community. The first meeting of the CPB was held in April of 2000.

The CPB was charged with the following responsibilities:

- 1) Serving as a sounding board for the community;
- 2) Developing the vision and goals for the community plan area;
- 3) Guiding the development of policies and map changes that address community concerns while remaining consistent with the Comprehensive Plan; and
- 4) Forwarding a recommended plan to the Pierce County Planning Commission and Pierce County Council.

OPEN HOUSES

The Community Planning Board held its first open house on April 25, 2001. The open house was well attended by the community, with over 100 people present. The open house provided



an overview of the planning process and provided information on the work completed to date by the CPB.

Open houses showcasing the CPB's final recommendations were held in February and March 2003. These open houses gave the general public the opportunity to review and comment on the draft plan prior to its transmittal to the Pierce County Planning Commission and Pierce County Council. The open houses also provided the CPB with important community feedback regarding their recommendations.

SURVEY

In 2000, a survey was distributed throughout the community to solicit input on a variety of issues, including:

- Perceived quality of life;
- Adequacy of facilities and services within the plan area;
- Quality of the natural environment; and
- Location and intensity of residential, commercial, and industrial uses.

The survey was conducted between June and October of 2000 and sent to 8,356 households located within and adjacent to the community plan area boundaries. It contained 86 questions covering three different categories:

- 1. Existing Conditions in the Community;
- 2. Policy Choices for the Community; and
- 3. Household Characteristics.

Within these categories, questions were divided by subject area, such as quality of life, the natural environment, transportation, etc. At the end of the survey, respondents were given the opportunity to add their own comments regarding the community or the survey. The results of the survey helped County staff and members of the Frederickson Community Planning Board assess community views regarding a variety of issues and were used as an aid in the development of the community plan.

A total of 684 surveys were completed and returned. This equates to a return rate of 8.2%. Statistically, a sufficient number of surveys were returned to obtain an accurate representation of household opinion to within approximately +/- 5 percent.

The survey noted that the areas of greatest concern were traffic, availability of recreational areas, and control of land use. The areas of least concern were the quality and affordability of housing and the quality and availability of emergency services.

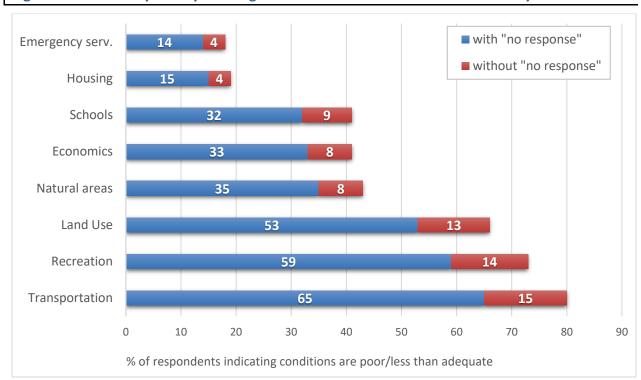


Figure D-2: Summary Survey Rankings of Current Conditions in the Community

2020 Frederickson Community Plan Update

Pierce County Council Ordinance No. 2015-40 directed the Planning and Public Works department (PPW) to develop a schedule for the update of community plans. PPW determined that the four community plans within the County's central Urban Growth Area (Frederickson, Mid-County, Parkland-Spanaway-Midland, and South Hill) should be updated simultaneously, due to the commonalities between the areas.

In 2016, PPW began working with the Frederickson Land Use Advisory Commission (LUAC) to review the community plan and identify areas in need of update. In spring 2017, PPW

conducted a significant public outreach process with the goal of gathering feedback from the community about their vision. This outreach included:

- A newsletter with information about the update to all properties within the plan area.
- A project website, including an online open house and survey.
- Press release, media outreach, and media interviews by local and regional media.
- Community open houses and property owner meetings.

This outreach resulted in more than 600 responses to surveys and more than 1,500 people requesting to receive future plan updates (these numbers reflect public response for all four community plan areas). The most common survey responses from Frederickson residents included:

- Concerns about increased development pressure, increasing traffic, increasing crime, and loss of natural areas and rural character.
- Desire to see safe bicycle and pedestrian facilities and improved transit connections to regional transit stations.
- Desire to see improvement of more north-south corridors to alleviate traffic in the area.

Based on public feedback, PPW and the LUAC proposed revisions to policies, zoning, and transportation improvement priorities. The draft plan and regulations were released and reviewed by the LUAC in 2018. The public process to adopt the draft plan began in spring 2019 and included a public open house with about 900 attendees, a series of LUAC and Planning Commission hearings, and hearings before the County Council Community Development Committee and full Council.

SUMMARY OF THE FREDERICKSON COMMUNITY PLAN

The Frederickson Community Plan contains policies and implementing actions for the following subject areas:



Land Use Element

Addresses the allowed type and intensity of land uses. A complete description of land use designations and their implementing zone classifications can be found in this element.



Community Character Element

Promotes community character, heritage, and social interaction. Guides the design of commercial and residential development.



Economic Element

Analyzes the economy of the area and considers a myriad of several opportunities to diversify the economic base and maintain a viable economic environment.



Environment Element

Defines existing resources and guides future development with consideration of on-site environmental constraints and the natural resources found in the area.



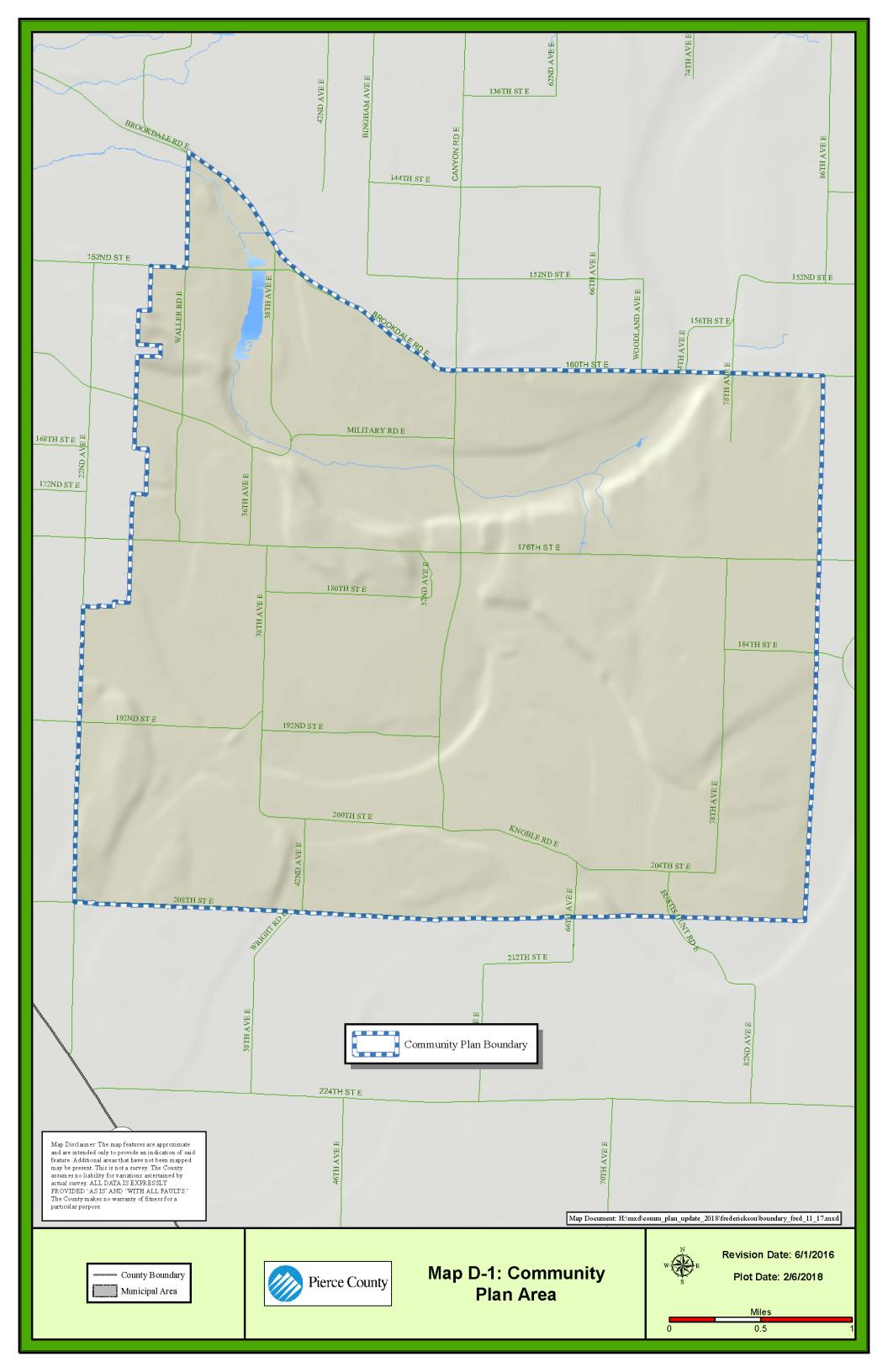
Facilities and Services Element

Addresses infrastructure and services needed to support the proposed land use growth and development, and potential partnerships and sources for funding opportunities.



Transportation Element

Addresses connectivity, nonmotorized access, and future transportation needs and improvements.



Chapter 2: Land Use Element

Introduction

The Land Use element of the Frederickson Community Plan provides direction regarding the location and intensity of land uses.

Frederickson is a community characterized by change. The community has been transformed from a quiet, rural community containing farms and large tracts of undeveloped land to a busy suburban community of many homes and businesses. The number of people in the community has increased dramatically, growing from less than 1,000 people in the late 1950s to over 14,000 people by 2002, and almost 30,000 by 2019.



Today, nearly 10,000 homes exist within the community and more are being constructed every day. More than 95% of these homes have been built since 1970, with nearly half of the homes being built in the last 15 years. More than 60% of the community is zoned for residential use at densities of 1 to 6 dwelling units per acre.

Retail uses within the community are currently very limited. Until the recent construction of commercial development at 176th Street East and Canyon Road East, there was only a small complex of retail buildings near the intersection of 160th Street East and Canyon Road East and a few scattered commercial and retail business in other areas of the community. Residents travel to the adjacent communities of South Hill and Spanaway to meet many of their retail and service needs, but may not have to once the commercial properties around the intersection of 176th Street East and Canyon Road East are fully developed.



Significant industrial development has occurred within the community since 1980. Industrial activity has shifted from resource-based activities, such as surface mining and lumber manufacturing, to manufacturing and processing facilities of various types and sizes. A wide range of goods are currently produced, including aircraft components, carbon composites, construction materials, and packaged foods. Frederickson has also been attractive to smaller-scale manufacturers.

POPULATION AND HOUSING TRENDS

In the decade prior to community plan adoption (2003), Frederickson nearly doubled in population. The 2003 community plan estimated a 2017 population of around 18,000. By 2019, Frederickson exceeded that estimate by 11,000 persons, with an estimated total of over 29,000 persons. From 2000 to 2019, the population of Frederickson grew by over 100 percent, with a total increase of 15,137 persons in 4,883 new households. There has been a significant amount of development in Frederickson over the past few decades. Household size is 3.06, which is significantly higher than the unicorporated county average of approximately 2.8. The community plan area is largely single-family development with larger-than-average-sized families.

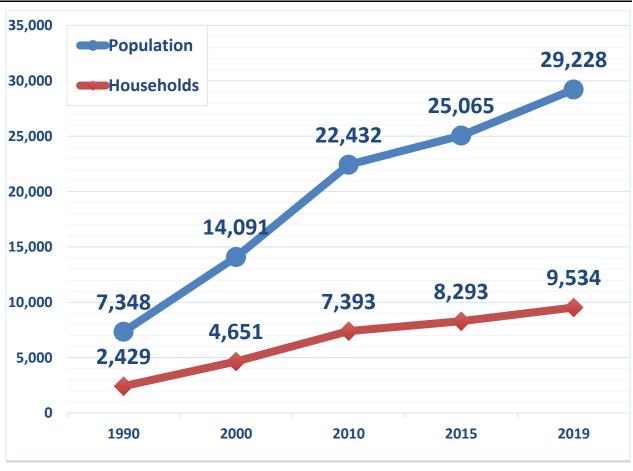


Figure D-3: Population and Household Growth (1990-2019)

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2015, 2019, 2020, and 2024. Esri converted Census 2000 data into 2010 geography. Esri estimated block group data, which is used to estimate polygons or non-standard geography. 1990 Census Blocks.

Housing Trends

The number of housing units in the area has grown by 104 percent in the last 19 years. Housing growth has steadily kept up with population growth but the number of units available only narrowly exceeds the number of households in the plan area, which suggests a low vacancy rate.

In the decade prior to adoption of the community plan (1990-2000), the number of housing units in Frederickson doubled, with 2,371 additional units. The decade after adoption (2000-2010), boasted 2,952 more. The number of units is currently over 8,600, with around 5,100 of those built since 2000.

The vacancy rate has remained around 4 percent over the last 15 years, which is considered low. Around 6 to 7 percent is considered a healthy vacancy rate. Housing in the plan area is predominantly owner occupied, with only 20 percent attributed to renters.



Frederickson Sign

Figure D-4: Housing Growth (1990-2019)

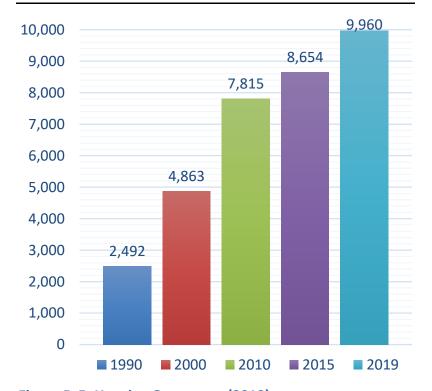
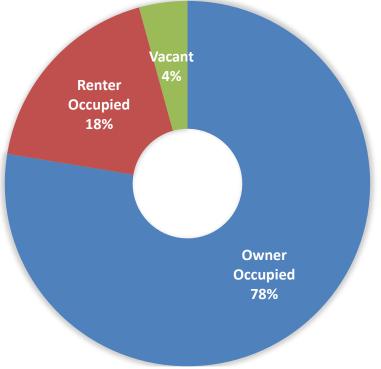


Figure D-5: Housing Occupancy (2019)



Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2019 and 2024. Esri converted Census 2000 data into 2010 geography. Esri estimated block group data, which is used to estimate polygons or non-standard geography. 1990 Census Blocks.

BUILDABLE LANDS INVENTORY

Since 1997, Pierce County and its 23 cities and towns have worked collaboratively to collect annual development permitting data, inventory developable land, and enhance information relating to wetlands and steep slopes. Commonly referred to as the Buildable Lands Program, this effort is aimed at improving accuracy in the information used to determine the capacity of the County's Urban Growth Areas. Pierce County published its first residential/employment capacity analysis in August 2002, second in September 2007, and third in June 2014.

The Buildable Lands Report is broken into three important parts:

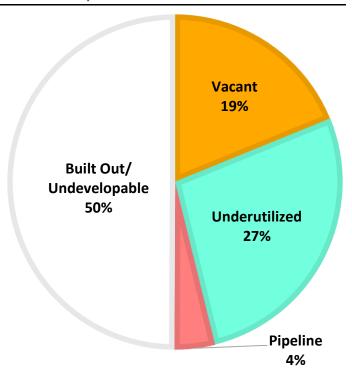
- 1. An analysis of past development trends;
- 2. An inventory of lands that are vacant, underutilized, built out, or undevelopable, and those associated with pipeline projects; and
- 3. A capacity analysis that uses the inventory to calculate the 20-year housing and employment capacities.

While the inventory is parcel specific, the capacity analysis is calculated by zone classification. This method restricts the ability to calculate capacity for smaller geographies. An explanation of the full methodology can be found in the Pierce County 2014 Buildable Lands Report.

It would not be valuable to attempt to calculate capacity for the Frederickson Community Plan area using the Buildable Lands Inventory methodology, but it is useful to look at the Buildable Lands Inventory itself to get an idea of how much land has development potential and what sizes parcels are, particularly vacant ones. The information could be used to get an idea of what types of development may occur in the future.

Figure D-6 shows that half of the land in Frederickson is considered fully developed or is too constrained to develop. Land already slated for development only makes up 4 percent. There is still 19 percent vacant land, averaging 6.48 net acres per vacant subdividable lot and 0.19 acres per vacant single unit lot. The remaining 27 percent is considered underutilized, averaging 2.08 net acres per lot.

Figure D-6: Buildable Lands Inventory for Frederickson Community Plan Area (Net Acreage, 2010 Parcels)



LAND USE TRENDS

The Pierce County Assessor-Treasurer's Office classifies how parcels are used for purposes of calculating assessed value for taxation. Pierce County Planning and Public Works uses this information to determine distribution of land uses within specific areas. This data is known to periodically contain errors, but is considered accurate for planning purposes. It reflects how land is currently being used and does not reflect zoning.

Figure D-7 shows that the two prevailing categories of land use in the plan area are residential and vacant. Together, these two use categories account for over 70 percent of total acreage in the community.

Figure D-7: Distribution of Land Use Categories (2016 Acreage)

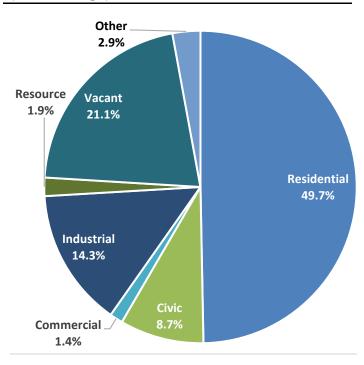
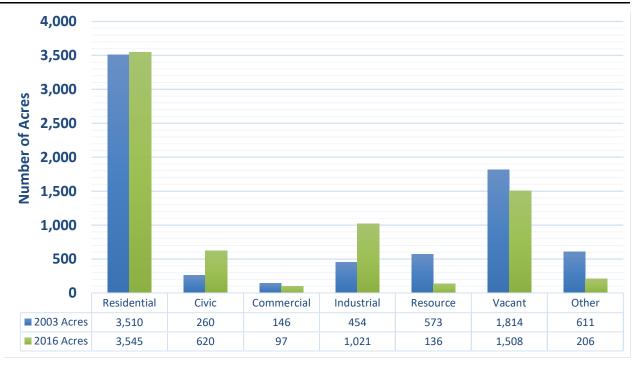


Figure D-8: Change in Acreage by Land Use Category (2003 vs. 2016)



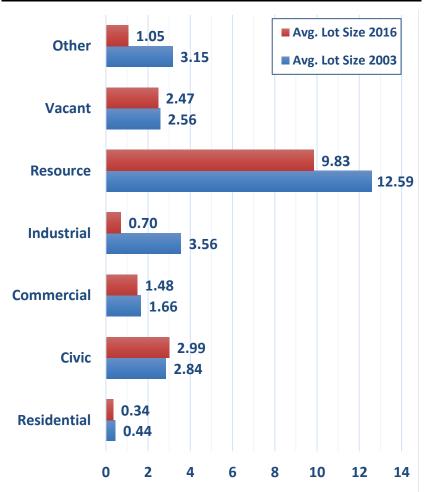
Source: Pierce County Assessor-Treasurer Tax Parcel Data accessed 2003 and 2016.

Table D-1: Change in Number of Lots by Land Use Category (2003 vs. 2016)

Land Use Category	2003 Lots	2016 Lots	Change
Residential	4,673	8,436	+3,763
Civic	95	183	+88
Commercial	98	41	-57
Industrial	37	79	+42
Resource	42	13	-29
Vacant	1,080	734	-346
Other	191	208	+17
Total	6,216	9,694	+3,478

Source: Pierce County Assessor-Treasurer Tax Parcel Data accessed 2003 and 2016.

Figure D-9: Change in Average Lot Size by Land Use Category (2003 vs. 2016)



Source: Pierce County Assessor-Treasurer Tax Parcel Data accessed 2003 and 2016

Land Use Trends

The primary change from 2003 to 2016 is an increase in the acreage consumed by industrial uses. While the number of acres used for residential purposes has only increased by 35 acres over this time frame, the number of lots has substantially increased by 3,763 and the lot size has decreased by a tenth of an acre. This shows the continual move toward urban densities and development of residential land.

Single-family residential makes up 38.8 percent of the plan area, or 46.5 percent when adding mobile homes on individual lots. Multifamily housing comprises only 1.86 percent of the total land uses within Frederickson.

Civic uses cover 8.7 percent and are primarily utilities, recreation, and schools. Commercial retail and service uses make up only 1.37 percent of the plan area, which may increase as the land at Canyon Road East and 176th Street East is developed. Industrial uses make up 14.3 percent of the community, with the majority used for manufacturing and assembly. There is a limited amount of land used for resource industries, predominantly for mineral extraction.



LAND USE DESIGNATIONS AND ZONE CLASSIFICATIONS

Table D-2: Land Use Designations and Zone Classifications

Land Use Designation	Zone	Acreage	Percent of Plan Area
Corridor (C)	Neighborhood Corridor (NCOR)	525.5	6.56%
Employment Center (EC)	EC	2,206.3	27.56%
	Employment Corridor (ECOR)	427.1	5.33%
Moderate Density Single	MSF	3,960.9	49.47%
Family (MSF)	Residential Resource (RR)	475.6	5.94%
	Single Family (SF)	278.9	3.48%
Park and Recreation (PR)	PR	131.8	1.65%
Total		8,006.2	100.0%

CENTERS AND CORRIDORS

Pierce County's unincorporated Urban Growth Area (UGA) is expected to experience an increase of approximately 57,000 persons from 2010-2030. With the number of large, vacant, buildable lots decreasing, the County is expecting an increase in infill development and redevelopment.

The majority of the UGA is within four community plan areas between two major east/west roadways (SR-512 and 176th Street East) and three major north-south roadways (SR-7, Canyon Road East, and SR-161). The Frederickson Community Plan area is among the four community plans that need to address future growth within this central UGA, along with the Mid-County, Parkland-Spanaway-Midland, and South Hill community plan areas.

The four plan areas are primarily moderate-density, single-family residential neighborhoods. There is a desire to preserve these single-family neighborhoods and focus growth near existing higher intensity uses along the major transportation corridors.

CORRIDOR

The Corridor (C) land use designation provides supplemental commercial and various residential uses along the major transportation corridors. The designation is implemented by the Neighborhood Corridor (NCOR) zone classification.

The NCOR zone allows smaller, limited neighborhood commercial and civic uses and all residential uses at a density of 6 to 25 units per net acre. The NCOR zone is applied in the plan area along Canyon Road East and 176th Street East.

Figure D-10: Corridor Designation

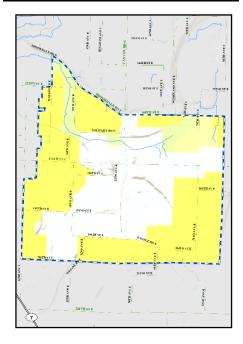


MODERATE DENSITY SINGLE-FAMILY

The Moderate Density Single-Family (MSF) land use designation is intended to provide areas for urban single-family and two-family residential development. The MSF designation is the predominant designation in Frederickson. Approximately 59 percent of Frederickson (4,704 acres) is designated as MSF.

The MSF designation is implemented by the Moderate Density Single Family (MSF), Single Family (SF), and Residential Resource (RR) zone classifications. The MSF classification allows for both single-family and duplex development, while the SF and RR classifications allow only single-family residential development. All classifications allow limited civic and utilities uses. The MSF classification allows a density of 4 to 6 dwelling units per acre. The SF classification allows a density of 4 units per acre and is used in areas of historically lower-density single-family development. The RR classification is used in areas with environmental constraints and allows a density of 1 to 3 dwellings units per acre.

Figure D-11: Moderate Density Single-Family Designation



EMPLOYMENT CENTER

The Employment Center (EC) designation provides land for industrial, manufacturing, and office jobs. Uses in the EC range from land intensive heavy industrial, (e.g., manufacturing, product assembly, fabrication and processing, and heavy trucking uses) to light manufacturing, assembly, and wholesale activities, to corporate office and office park development. Commercial uses subordinate to and supportive of employment uses are also permitted. The EC designation is the second most prevalent land use designation in the community.

The Employment Center designation is implemented by the Employment Center (EC) and Employment Corridor (ECOR) zone classifications. The EC zone allows all types of industrial uses with limited supportive commercial. The ECOR zone allows a variety of industrial uses and supplemental commercial and civic uses to encourage employment and economic development.

The Employment Center area within Frederickson is regionally designated as a Manufacturing / Industrial Center (MIC). The site must qualify under regional guidelines to be designated as a MIC. The County must continue to work to preserve the characteristics of the site to maintain the MIC regional industrial center designation. The MIC is one of the largest single industrial development sites in the Puget Sound area that is zoned for heavy manufacturing and has industrial capacity, utilities, and infrastructure in place. The area covers more than 2,000 acres, more than half of which is undeveloped. The Frederickson MIC is one of the principal industrial centers in Pierce County.

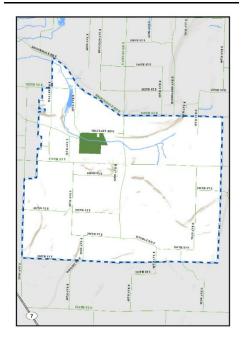
Figure D-12: Employment Center Designation



PARK AND RECREATION

The Park and Recreation (PR) designation is intended to identify specific public lands and private parks, campgrounds, historical sites, or tourist attractions for park and recreational purposes. Public lands identified for the Park and Recreation designation may include historical sites, tourist attractions, or property improved with park or recreational facilities. Unimproved public lands may be designated Park and Recreation when identified for future regional park uses. The PR designation is implemented by the Park and Recreation (PR) zone classification.

Figure D-13: Park and Recreation Designation



ANNEXATION / INCORPORATION

The Growth Management Act (GMA) and regional growth policies promote annexation or incorporation of county urban growth areas (UGAs) over time. Cities and towns may only annex property that is located within their designated UGA, called a Potential Annexation Area (PAA) in Pierce County. The Frederickson Community Plan area is not within a PAA but is within the UGA.

Pierce County has also adopted policies and a Potential Incorporation Area (PIA) designation. A PIA designation indicates that an area would like to work toward incorporation in the future. According to State law, in order for an area to incorporate it must show that it is economically viable. Being within a PIA does not obligate a jurisdiction to incorporate within a defined timeline.

The Frederickson Community Plan supports the community's efforts to develop the economic viability, population, and other characteristics that support an economically-stable community. If Frederickson residents choose to propose incorporation, they must initiate a fair process to analyze the feasibility of the proposal. Every proposal for annexation or incorporation must include a "Plan for Services" that demonstrates the area can be served with basic services.

Incorporation in this area may only be finalized by a majority vote of registered voters within the proposed incorporation area.

LAND USE POLICIES

GOALS

In the Frederickson Community, the principle goal of the plan is to foster a predominantly residential community that balances environmentally sensitive areas, high traffic corridors, desired open space, and job creation while maintaining a quality living environment. The predominant housing type within the community will be moderate density single-family housing. Limited areas of multifamily housing will be provided along major traffic corridors near commercially zoned lands. Multifamily housing should be located in close proximity to transit services. Where multifamily housing cannot be served by transit, the minimum parking requirements shall be met as required by Pierce County Development Regulation for non-Centers and Corridors areas. Low density housing will be located along Clover Creek to minimize development impacts to this high-value natural system. A commercial center will develop at the intersection of 176th Street East and Canyon Road East. This center will meet the daily needs of residents and the growing workforce employed within the Employment Center. Continued growth and development within the Frederickson Employment Center will be actively encouraged by ensuring that necessary infrastructure is available to meet the required level of service and by promoting an efficient and predictable regulatory environment.

GENERAL

- GOAL FR LU-1 Designate the Frederickson Community Plan area as a Potential Incorporation Area (PIA) and acknowledge that a future incorporation boundary proposed by residents could include land outside the community plan area.
- GOAL FR LU-2 Promote the continued development of the Frederickson Employment Center by emphasizing a regulatory environment that is supportive of the establishment of new businesses and the expansion of existing businesses.
 - **FR LU-2.1** Promote a system of land use control that meets future growth needs in a predictable and efficient manner.
 - FR LU-2.1.1 Provide sufficient residential and commercial land capacity and the necessary supporting infrastructure within the community to meet the needs of the community for the next 20 years.
 - FR LU-2.1.2 Ensure that the residential densities and land area provided for each of the various zone classifications within the community enable a residential density of at least 4 dwelling units per net acre to be achieved as the community is developed.

FR LU-2.1.3 Regularly monitor and evaluate growth trends within the community to determine if planned densities are being achieved. In the event monitoring indicates that planned densities are not being achieved, Pierce County shall develop recommendations to address the situation and shall present such recommendations for consideration during the next community plan update.

GOAL FR LU-3 Allow the following densities in the applicable residential and mixed-use zones:

Land Use Designation	Zone	Minimum Dwelling Units per Net Acre	Maximum Dwelling Units per Net Acre
Corridor (C)	Neighborhood Corridor (NCOR)	6	25
Moderate Density Single Family (MSF)	MSF	4	6
	Residential Resource (RR)	1	3
	Single Family (SF)	4	4

- **GOAL FR LU-4** Provide strict guidance for rezones to ensure community plan goals and objectives are properly implemented.
 - **FR LU-4.1** The proposed zone must be an allowed zone under the existing land use designation.
 - **FR LU-4.2** Ensure commercial and industrial rezone applications are consistent with the goals, objectives, and standards set forth in the Frederickson Community Plan.
 - FR LU-4.3 Commercial and industrial rezones shall be allowed only when findings can be made that the proposed zone implements the policies of the designation better than the existing zone.

EMPLOYMENT CENTER

- **GOAL FR LU-5** Designate lands for industrial and employment uses as Employment Center.
 - FR LU-5.1 The Employment Center designation shall be implemented by the Employment Center (EC) zone and the Employment Corridor (ECOR) zone.
 - FR LU-5.2 The ECOR zone shall be implemented on the east side of Canyon Road East between 160th Street East and 176th Street East and shall include the properties around the intersection of 176th Street East and Canyon Road East.
 - FR LU-5.3 The EC zone shall be implemented along portions of 176th Street East between Canyon Road East and 70th Avenue East, and south of 176th Street East encompassing the industrial areas between approximately 30th Avenue East and 70th Avenue East and as far south in some areas as 208th Street East.
- GOAL FR LU-6 Ensure that changes in land use designations, zoning, and development standards within the community do not adversely affect the viability of the Employment Center.

- FR LU-6.1 Utilize the industrial land location criteria set forth in the Pierce County Comprehensive Plan when evaluating Employment Center zoned lands for possible rezoning.
 - FR LU-6.1.1 Evaluate the benefits of any proposed change in land use designations, zoning, or development standards within or adjacent to the Employment Center against the impacts to businesses within the center.
- **FR LU-6.2** Maintain the regional designation of the Frederickson Employment Center as a Manufacturing / Industrial Center.
- **GOAL FR LU-7** Provide an orderly transition from the Employment Center to residentially zoned properties and environmentally sensitive areas.
 - FR LU-7.1 Review the zoning atlas and recommend changes to create logical boundaries and transitions from the Employment Center to residentially zoned properties and environmentally sensitive areas.
 - **FR LU-7.1.1** Use ownership patterns, roadways, topography, lot size, and environmental features to establish logical boundaries to the Employment Center.
 - **FR LU-7.2** Establish a transition area between the Employment Center and residential zones.
 - FR LU-7.2.1 Limit heights and uses within the transition area or provide some other means of promoting greater compatibility with residentially zoned parcels.
 - FR LU-7.2.2 All developments on the periphery of the industrial area shall be designed, screened, or bermed to mitigate undesirable impacts upon surrounding residential areas.

COMMERCIAL

- GOAL FR LU-8 Provide well-designed, appropriately scaled retail and service development at limited locations in the community.
 - **FR LU-8.1** Strive for the development of well-designed, well-placed neighborhood and community-scale commercial development within the plan area.
 - **FR LU-8.1.1** Retail and service uses should primarily meet the needs of the Frederickson community.

CORRIDOR

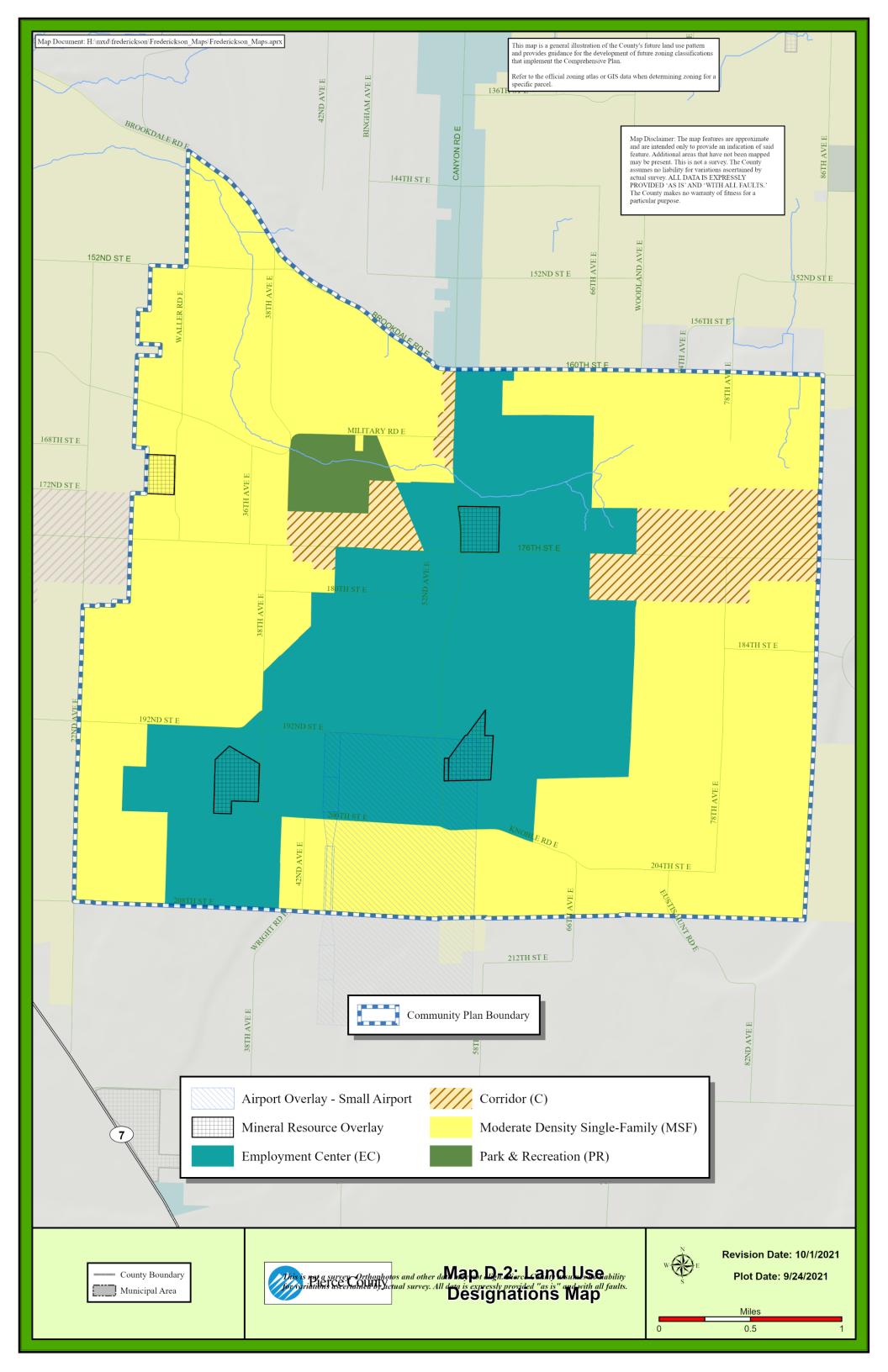
- GOAL FR LU-9 The Corridor designation will support the function of Canyon Road East as a freight corridor to serve the Frederickson Manufacturing/Industrial Regional Center.
 - FR LU-9.1 In the Frederickson Community Plan area, the Corridor designation is implemented by the Neighborhood Corridor (NCOR) zone classification.

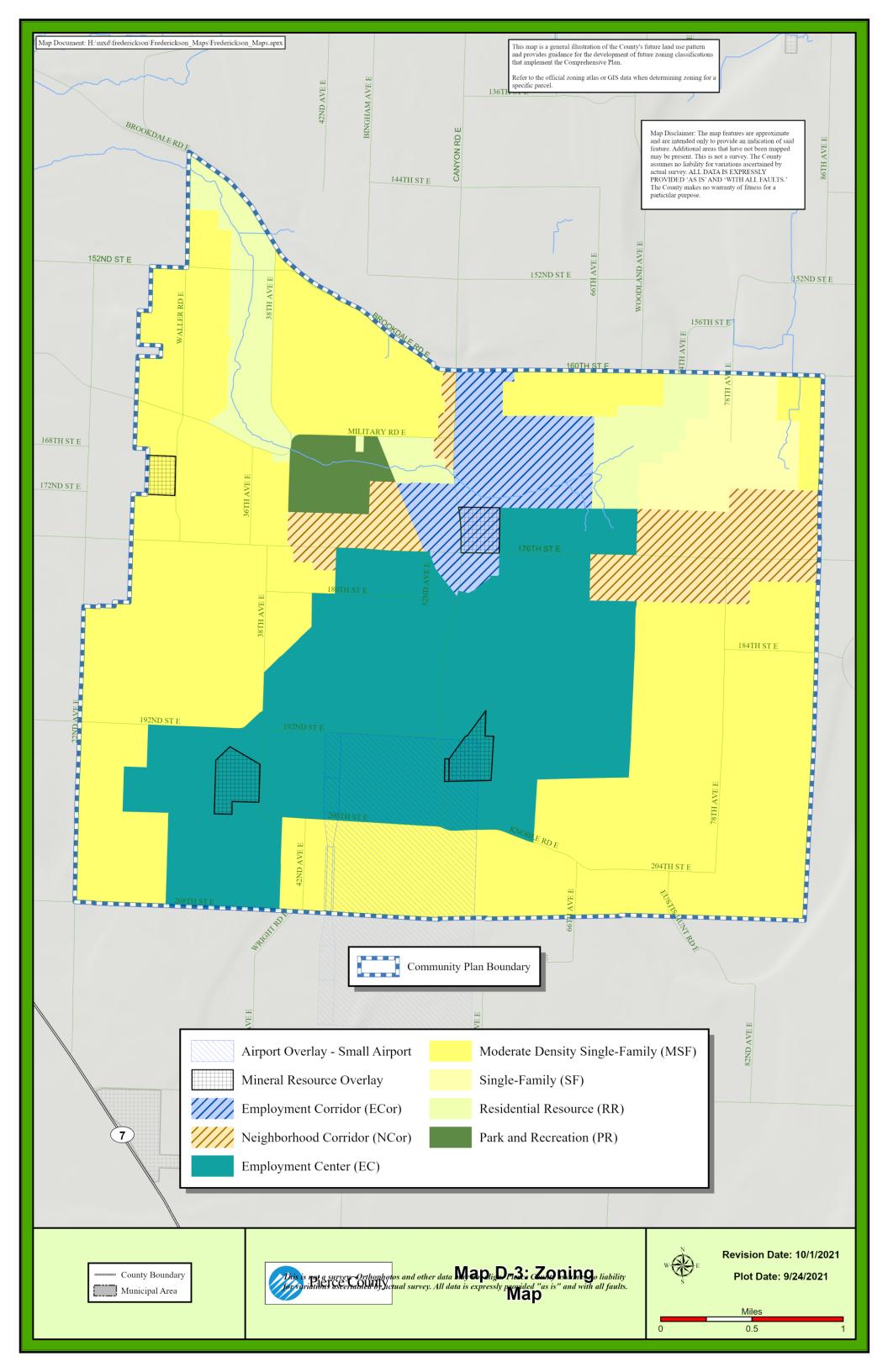
- FR LU-9.1.1 The NCOR zone shall be implemented on the west side of Canyon Road East from 160th Street East to the northern boundary of the Employment Center designation and along 176th Street East between the Employment Center and Cross Park, and between approximately 66th Avenue East and 86th Avenue East.
- FR LU-9.2 The NCOR zone is a mixed residential zone allowing all types of residential development, as well as civic uses and limited, neighborhood-scale commercial uses.
- **GOAL FR LU-10** Provide well-designed, appropriately-scaled retail and service development at limited locations in the community.
 - **FR LU-10.1** Require all commercial developments to meet architectural and site design standards.
 - **FR LU-10.2** Landscaping of commercial sites should be required, particularly along public roads and within parking areas.
- **GOAL FR LU-11** Control the location, scale, and range of commercial uses within the community in a manner as appropriate to accomplish the objectives of the community plan.
 - FR LU-11.1 Limit the impacts of additional commercial development along 176th Street East to the east and west of the Employment Corridor at 176th Street East and Canyon Road East by limiting access points through shared access and frontage roads or other access restriction methods.
 - FR LU-11.2 Encourage the communities of Summit View and North Clover Creek Collins to carefully control and limit commercial development along Canyon Road East to maximize the efficiency of this roadway as a major north-south arterial and to prevent the development of a continuous commercial strip into the Frederickson community.
- **GOAL FR LU-12** Implement compatibility requirements to minimize the impact of commercial activities on adjacent residential uses.
 - **FR LU-12.1** Require intensive screening and buffering of commercial uses adjacent to residential areas.

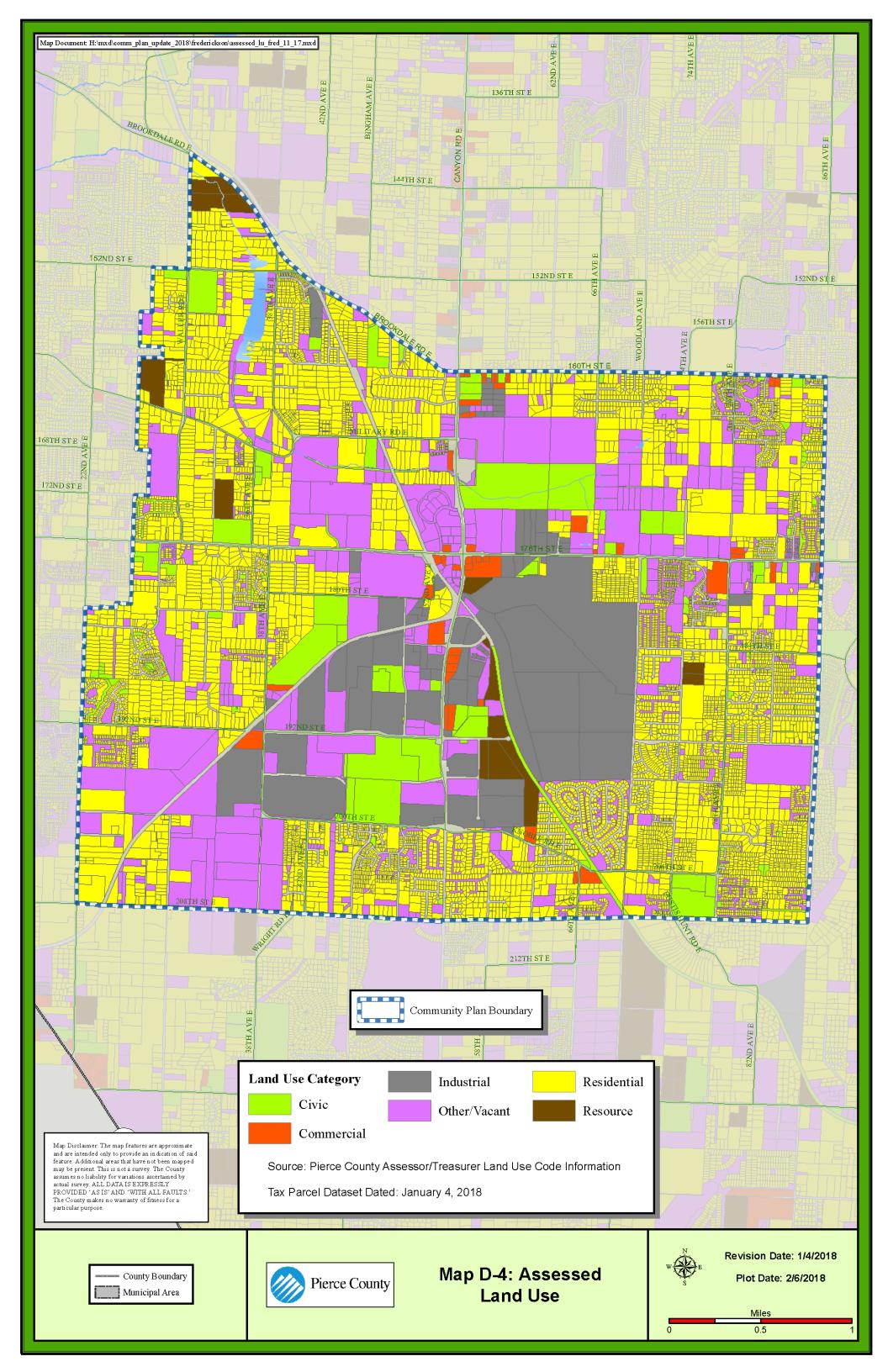
RESIDENTIAL

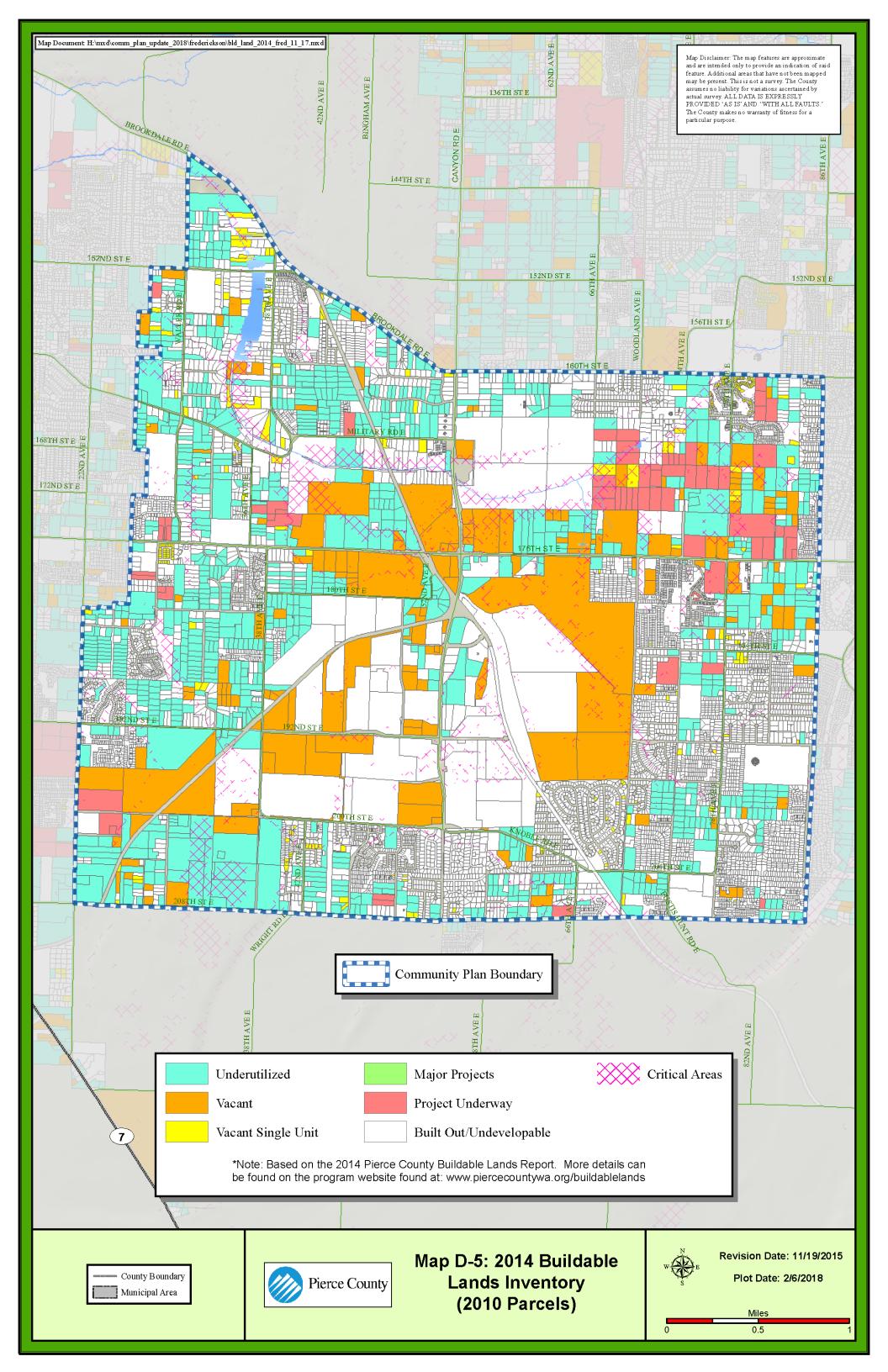
- **GOAL FR LU-13** Residential density should vary based upon characteristics of the built and natural environment.
 - FR LU-13.1 Areas of the community with no significant environmental constraints or compatibility issues should be zoned as Moderate Density Single-Family (MSF) and should be developed generally at densities of 4 to 6 dwelling units per acre.
 - FR LU-13.2 Properties along the Clover Creek corridor should be zoned Residential Resource (RR) reflecting the more environmentally sensitive nature of these lands.

- **FR LU-13.2.1** These properties should be developed generally at densities of 1 to 3 dwelling units per acre.
- FR LU-13.3 Properties in the upper drainage basin of Clover Creek should be zoned Single-Family (SF) reflecting the environmental characteristics of these lands and proximity to Clover Creek.
 - **FR LU-13.3.1** These properties should develop generally at a density of 4 dwelling units per acre.
 - **FR LU-13.3.2** The SF zone should primarily be developed with detached single-family housing and compatible civic uses. Multifamily housing should be prohibited.
- **FR LU-13.4** Efforts should be taken to ensure consistency/compatibility with residentially zoned lands immediately adjacent to the community plan area.









Chapter 3: Community Character and Design Element

INTRODUCTION

Community design deals with the physical elements that compose the character of our communities: the streets, parks, buildings, open space, and neighborhoods that determine the way our communities look and feel. It is a blending of land use planning, architecture, landscape architecture, and environmental protection. Community design looks at the way in which buildings, streets, public places, natural features, and other development relate to one another and the people who use them. Through community design, individual improvements, such as street construction, park development, land



use regulation and new commercial, industrial, residential and civic development can be effectively coordinated with each other to promote a unified community image.

The way in which people experience their communities and interact with one another is determined, in large measure, by a community's design. Designs that emphasize community are those that invite human presence and allow for interaction of people. Where design is not a consideration, land use planning and regulation often fail to recognize the functional and visual links between developments. Poorly designed development tends to hinder the development of desired land uses.

While the regulation of appearance and design is often a basic component of urban regulatory systems, it is also one of controversy. Many people feel that such regulation is inherently subjective and hence inappropriate for government. However, design regulation is not only capable of making a substantial difference in the character of a community and its quality of life, but it also plays an important role in how the community perceives itself and how it is perceived by outside visitors.

The need for a community plan element articulating the desired appearance and character of individual communities is inferred through policies in the 1994 Pierce County Comprehensive Plan and is stressed through public input gathered through the Frederickson and other community planning efforts.

The Community Character and Design Element is an integral part of the entire growth management planning process for Frederickson. Design directly affects land use patterns, transportation planning, community and neighborhood livability, and overall quality of life. The design policies are intended to establish and reinforce a visual character for Frederickson.

The Community Character and Design Element is affected by the Land Use Element which develops policy direction for urban form and, in turn, affects the Land Use Element by providing guidelines for how the urban form can be achieved and critical areas can be integrated into future projects. The design direction found in the Community Character and Design Element is also closely linked with and provides support for policy direction in the Economic Development, Natural Environment, and Facilities and Services elements of the community plan.

FREDERICKSON'S CHARACTER

Historically, Frederickson has been defined by its rural and agricultural characteristics. As recently as the late 1950s and early 1960s, only a few hundred homes existed in the community. Up until this time, the community was characterized by its low density, agricultural uses, prairies, and forests. Much of this character has been lost, however, in the face of rapid growth.

Over the past five decades, population has increased from less than 1,000 people in the early 1960s to more than 14,000 people when the plan was adopted in 2003, to more than 25,000 people in 2015. During this time considerable industrial growth has also occurred in the community. Retail and service development within Frederickson is limited mainly to the area at 176th Street East and Canyon Road East. Residents typically travel to adjacent communities to meet their shopping needs.



Today, the most defining characteristic people associate with Frederickson is the Employment Center and the Boeing Company's manufacturing plant located there. This association is very appropriate given that almost 30 percent of the community is devoted to industrial uses. Aside from the industrial area, Frederickson is essentially a bedroom community, mostly comprised of newer subdivisions built within the past 30 years.

While much change has occurred in the community in recent years, opportunity still remains to significantly shape the future character of Frederickson. Significant pockets of open space and vacant land remain, and substantial tree cover is still present.

The residents of Frederickson want to better define the community and help to ensure that it remains a desirable place to live as it continues to grow in the future. The community plan enacts measures to ensure future development will contribute to visual and functional amenities. The goals of the community plan are accomplished through policies, regulations, and design standards. However, adoption of the community plan will not result in immediate change. Significant and lasting change will occur over time through the realization of the implementing actions and resident support.

DESIGN



The Frederickson Community Plan integrates the natural and built environments to create neighborhoods and business centers that are functional, visually attractive, and compatible with the natural surroundings. Design standards require new development to demonstrate that filling and grading are minimized, trees are retained or replaced, and pedestrian connections are in place. Landscape standards are increased for parking lots and commercial buildings. Building and site design will emphasize safety through effective use of lighting, site design, and landscaping. Within the core commercial area, amenities such as courtyards or plazas, well-defined pedestrian pathways, benches, and lighting will be integrated into site design to attract pedestrian uses. The apparent scale of multifamily and commercial buildings will be

reduced through the design and placement of structures and the effective use of landscaping.

GATEWAYS



Canyon Road East and 176th Street East are the major routes into the community. Creating attractive entrances to the community along these roadways is needed to better identify Frederickson as a place. Standards included within the plan require specific design features at these important gateways.

Additionally, the plan emphasizes landscaping along Canyon Road East and 176th Street East. These roadways are the most visible and traveled areas of the community and as such are significant

to the community's character. The plan emphasizes wide landscaping buffers and similar treatments along these roadways.

SIGNS

The community plan sets new standards for signs as a means of enhancing the streetscape of Canyon Road East and 176th Street East. Policies and regulations strive to reduce the number and size of signs. In commercial complexes with multiple businesses, signs will be consolidated to diminish the visual clutter. New pole signs will be limited.

TREES

Trees and vegetation retention are addressed through two methods in the community plan. First, the plan introduces standards for tree retention or replacement. These standards require trees on a site to be retained or, if the site is void of trees, to be replaced with trees similar to the surrounding neighborhood, except where a site has historically been pasture land. Trees are also addressed through landscape standards.

PEDESTRIAN LINKAGES

To promote mobility within neighborhoods and throughout the community, a strong emphasis is placed on ensuring pedestrian sidewalks are constructed. Commercial business and residential developments will construct sidewalks within their developments as well as along the perimeter. Roadways will be separated from pedestrian and bicycle pathways so as to encourage a variety of modes of transportation.



DESIGN AND CHARACTER POLICIES

GOALS

Promote community cohesion and a high-quality visual environment by establishing requirements related to architectural, site, and landscape design.

COMMUNITY ENTRIES AND STREETSCAPES

- **GOAL FR D-1** Provide design concepts and policies that will create attractive, easily identifiable community entrances and streetscapes within the Frederickson community.
 - FR D-1.1 Create identifiable boundaries, entries, gateways, and other visual cues so that residents, workers, and visitors know they are entering the community.
 - **FR D-1.2** Provide distinctive designs at the edges, entrances, and other key locations within the community.
 - FR D-1.3 Use a variety of measures to create distinctive entrances, e.g., landscaping, tree planting, graphics, signage, lighting, monuments, pavement treatment, and public art.
 - **FR D-1.4** Recognize entrances to the community plan area with landscaping consisting of tree plantings, signage, or public art.
 - Pierce County shall support and assist the community in developing and maintaining entrances. Support and assistance may be in the form of grant writing, developing a landscaping plan, working with the business community, and other methods to solicit interest in the development of the entrances.
- **GOAL FR D-2** Enhance neighborhood quality and promote a strong sense of community by utilizing design standards to promote streetscapes.
 - **FR D-2.1** Develop a standard streetscape design for Canyon Road East and 176th Street East.
 - FR D-2.1.1 Landscaped buffer areas, lighted crosswalks, sidewalks, and sidewalk connections to adjacent developments should be incorporated into the design and construction of road improvement projects affecting Canyon Road East and 176th Street East.
 - **FR D-2.1.2** Where feasible, safe, and practical, pedestrian refuges should also be provided.
 - **FR D-2.2** Promote the planting of street trees to enhance community character.
 - **FR D-2.2.1** Promote the planting of street trees and other vegetation along all arterial roadways within the community.
 - FR D-2.2.2 Pierce County shall update standards and guidelines for street tree species selection, installation, and maintenance.

- FR D-2.2.3 Business owners, shopping center organizations, homeowner associations, and property owners shall develop street tree management programs. Such programs shall focus on maintenance.
- **FR D-2.3** Require a standard streetscape design for future road expansions.

COMMERCIAL AND INDUSTRIAL CHARACTER

- GOAL FR D-3 Develop commercial and industrial requirements dealing with site design, building design, landscape design, and sign design and placement.
 - **FR D-3.1** Emphasize the importance of street corners through building location, pedestrian access, special site features, or landscape features.
 - **FR D-3.2** Develop detailed streetscape plans addressing streets, crosswalks, sidewalks, signage, landscaping, street furniture, utilities, public spaces, etc.
 - **FR D-3.3** Use durable, high quality materials in site furnishings and features for ease of maintenance.
 - FR D-3.4 Use fencing and landscaping to conceal outside storage and sales areas with high quality materials.
- GOAL FR D-4 Architectural and site design of non-residential, commercial developments should reflect desired community character.
 - FR D-4.1 Discourage nondescript architecture that has few design features, lacks cohesiveness, or is scaled to be appreciated at automobile speeds.
 - **FR D-4.2** Within a given commercial or civic development, require consistent architectural themes and colors for buildings, street furniture, and amenities.
 - FR D-4.3 Provide pedestrian-friendly facades on the ground floor of all buildings that face public streets and parking areas.
 - **FR D-4.4** Enhance building entries with a combination of weather protection, landscaping, pedestrian amenities, or distinctive architectural features.
 - FR D-4.5 Locate or screen roof-mounted mechanical equipment to minimize visibility from public streets, building approaches, and adjacent properties.
 - FR D-4.6 Locate or screen utility meters, electrical conduit, and other utility equipment to minimize visibility from the street.
- GOAL FR D-5 Site and building design requirements within the Employment Center designation should focus primarily on ensuring appropriate transitions to non-industrial areas and public roadways.
 - **FR D-5.1** Limit site and building design requirements within the Employment Center zone to landscaping, setback, height, and lighting control.
 - FR D-5.2 Industrial uses should provide substantial landscaped areas when adjacent to residentially zoned areas and public roadways.

FR D-5.3 A system of varied building setbacks and heights should be implemented for industrial uses based upon the intensity of the use, site characteristics, and adjacent land uses.

RESIDENTIAL USES

- **GOAL FR D-6** Promote the development of well-designed urban residential areas.
 - **FR D-6.1** Develop specific design guidelines for single-family and multifamily residential development dealing with site planning and building placement.
 - **FR D-6.2** Provide incentives for innovative site designs and clustering of single-family residential uses and high density multifamily uses.
 - FR D-6.2.1 Promote the visual quality of neighborhood streetscapes so that they become a valued element of the character of the community and enhance neighborhood quality.
 - **FR D-6.2.2** Provide opportunity for porches and decks within front yard setbacks.
 - FR D-6.3 Permit single-family detached dwelling units to encroach into front yard setbacks the same distance the garage entrance is recessed behind the front yard setback line. The front yard setback shall not be less than 15 feet in the MSF designation.
 - **FR D-6.4** Encourage underground stormwater retention systems by providing development incentives.
 - FR D-6.5 Provide incentives for innovative architectural design of two-family (duplex), attached single-family, and multifamily residential development.
 - **FR D-6.6** Encourage two-family developments that provide alley access to the vehicle enclosure.
 - **FR D-6.7** Avoid locating parking areas for multifamily developments between the buildings and the street.
 - FR D-6.8 Reduce the amount of density or intensity allowed within a proposed development for lack of permanently designated usable open space.

URBAN OPEN SPACE

- GOAL FR D-7 Property improved with buildings, parking areas, and other impervious cover shall include areas of natural and landscaped vegetative cover to protect the aesthetic qualities of the area, to protect aquifers and aquifer recharge areas, provide urban wildlife habitat, and to prevent runoff to adjoining properties, streams, and other critical areas.
 - **FR D-7.1** Provide a range of open space dedication requirements based upon the density or intensity of the proposed use.

- FR D-7.2 Require a permanent dedication of open space as a condition of approval for a site plan or division of land. The following activities should be allowed within designated open space areas and are listed in order of priority.
 - **FR D-7.2.1** Preservation of natural vegetation including fish and wildlife habitat.
 - **FR D-7.2.2** Natural resource protection including steep slopes, streams, and wetlands.
 - **FR D-7.2.3** Buffers between incompatible land uses.
 - **FR D-7.2.4** Passive recreation (pervious and impervious trails).
 - **FR D-7.2.5** Active recreation (parks).
 - **FR D-7.2.6** On-site utilities.
 - **FR D-7.2.7** Pedestrian and bicycle trails shall be permitted uses within designated open space tracts.
- **FR D-7.3** Require the open space area to be clearly marked and identified as a protected area through methods such as fencing, when appropriate, and signage.

LANDSCAPE DESIGN

- GOAL FR D-8 Use creative landscaping to calm traffic, attractively screen service areas, minimize the impact of parking lots, and revitalize the natural environment.
 - FR D-8.1 Encourage a landscaped area between the traffic and the sidewalk. The purpose of the landscaped area is to provide a safe buffer between pedestrians and the street. Landscaping shall not inhibit driver sight distance or visibility.
 - FR D-8.2 Trees that serve to assist in noise reduction for commercial or industrial properties shall consist primarily of evergreen and coniferous species.
 - **FR D-8.3** Encourage the use of bioretention swales in parking lot landscaped areas to break up the expanse of asphalt and assist in stormwater treatment and infiltration.
 - **FR D-8.4** Parking lot landscaping shall be significant and dispersed throughout the lot in order to provide shade, pedestrian refuge, and visual relief.
 - FR D-8.5 Where commercial or industrial land uses abut residential uses, a landscaped buffer shall be provided to reduce noise and glare impacts.
 - FR D-8.6 Vegetation that is native to the Pacific Northwest and that is drought tolerant is preferred for landscaping.

SIGN DESIGN

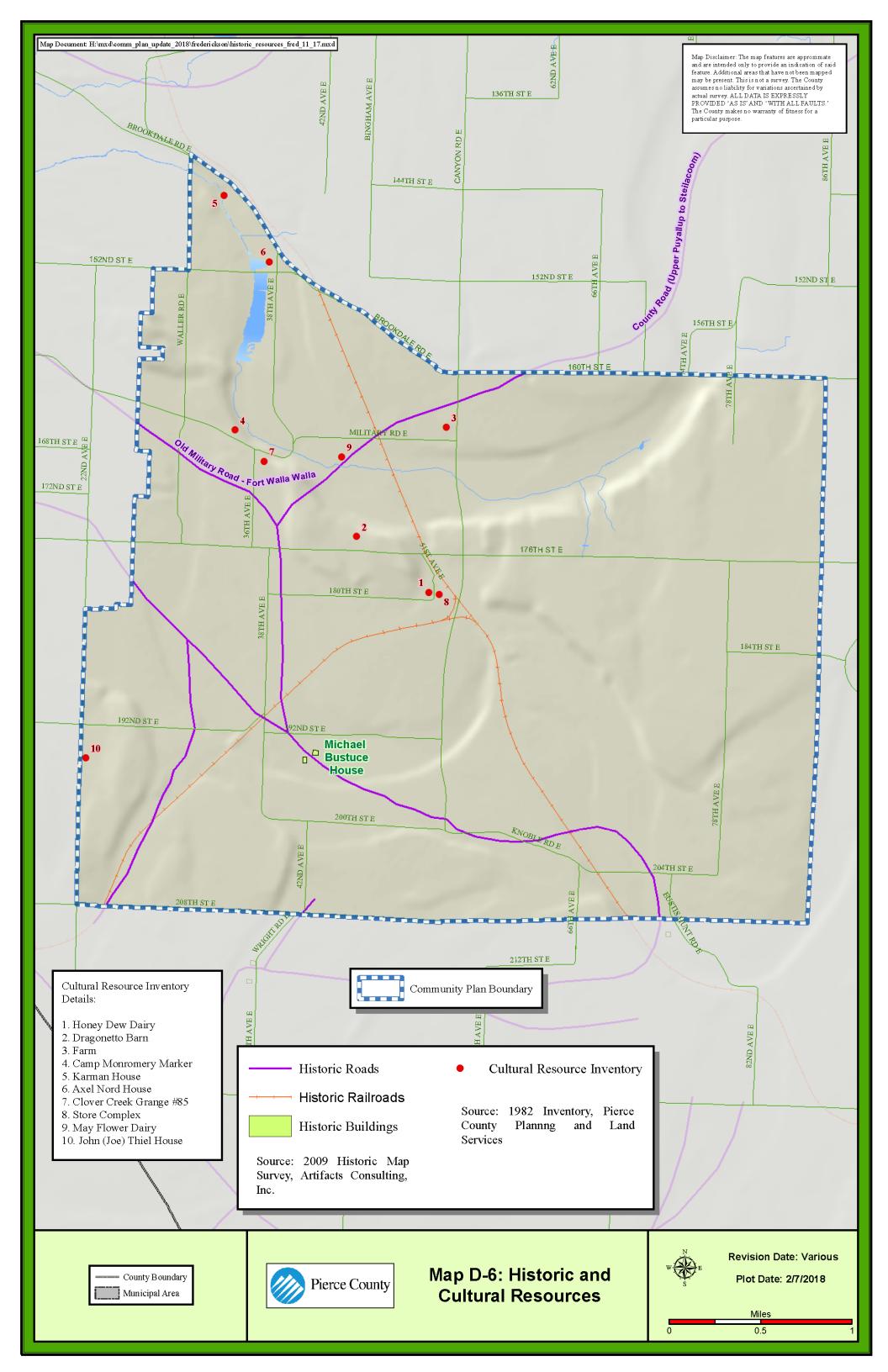
- **GOAL FR D-9** Establish and implement uniform and balanced requirements for new signs.
 - FR D-9.1 Incentives should be provided to bring existing signs into conformance with new codes. Incentives should include tax credits or dismissal of permit fees for replacing the sign.

- FR D-9.2 Aggressively seek nuisance abatement to eliminate problems that inhibit the goals of the community. Pierce County shall identify dilapidated, abandoned, and illegal signs for future abatement action.
- **FR D-9.3** Ensure that temporary signs are promptly removed after the culmination of the event described or symbolized on the sign.
- GOAL FR D-10 Ensure that all signs undergo design review to ensure that the design and placement of signs is consistent with the Frederickson Design Standards and Guidelines.
 - FR D-10.1 Ensure that signage is integrated with the overall architectural framework and structural elements of the building, reinforcing the shape and proportion of the façade through such techniques as detailing, use of colors and materials, and placement.
 - **FR D-10.2** Prohibit the use of flashing or rotating signs, video signs, roof signs, railing signs, inflatable signs, and signs attached to private light standards.
 - **FR D-10.3** Prohibit the use of lights and surfaces that result in glare onto adjacent properties or traffic.
 - **FR D-10.4** Limit the use of pole signs.
 - **FR D-10.5** Allow monument and wall signs.
 - **FR D-10.6** Require consolidation of signage within commercial development to reduce visual clutter along streets and the freeway.
 - **FR D-10.7** Prepare standards that limit overall signage to a proportion of the length of the building façade.
 - **FR D-10.8** Prohibit canvas canopy signs and canopy signs that are backlit.
- **GOAL FR D-11** Minimize the use of off-premise signs within Frederickson.
 - **FR D-11.1** Restrict the use of off-premise signs to temporary applications such as the directional signage used to identify real estate open houses and garage sales.
 - **FR D-11.2** Prohibit new billboards within Frederickson.
 - **FR D-11.3** Existing billboards should be eliminated over time through use of an amortization period.
- GOAL FR D-12 Enable individuals, businesses, and community groups to promote temporary activities to the wider community through the adoption of clear regulations governing the use, size, and allowed duration of temporary signs.
 - **FR D-12.1** Allow banners for community activities and events.
 - FR D-12.2 Banners should be of a style, size, and color that complement the surrounding environment and standard on which they are affixed. Consideration should be given to whether or not the structures from which the banners are being suspended can support the weight and the force of the wind upon the banners.

- FR D-12.3 Commercial center banners must be primarily promoting the commercial center where they are displayed. Specific advertising of businesses or merchandise is prohibited.
- **FR D-12.4** Temporary signs that are placed within a permanent structure, such as on private light standards, shall be prohibited.
- FR D-12.5 Prohibit temporary signs that are affixed to a utility pole unless expressly reviewed and approved by the utility provider.

LIGHTING DESIGN

- **GOAL FR D-13** Consistently apply and enforce lighting regulations.
 - **FR D-13.1** Provide lighting that is integrated with the overall architectural concept in scale, detailing, use of color and materials, and placement.
 - FR D-13.2 Integrate the design and placement of exterior lighting with the architectural design and materials of on-site buildings, overall site character, and surrounding neighborhood.
 - **FR D-13.3** Require lighting to be reviewed during design review in all new developments.
- **GOAL FR D-14** Ensure that lighting in communities contributes to vehicle and pedestrian safety.
 - **FR D-14.1** Provide adequate lighting levels in all pedestrian areas including building entries, along walkways, parking areas, transit, and other public areas.
 - **FR D-14.2** School bus stops should be lit and safe. The school district should plan the stops and developments should contribute to construction and safety.
- **GOAL FR D-15** Encourage energy efficient lighting solutions.
 - **FR D-15.1** Encourage all non-essential exterior commercial and residential lighting be turned off after business hours and/or when not in use.
 - **FR D-15.2** Encourage the use of lights on a timer.
 - **FR D-15.3** Encourage the use of motion-activated lighting for security purposes.
- **GOAL FR D-16** Encourage parking area lights to be greater in number, lower in height, and lower in light level, as opposed to fewer in number, higher in height, and higher in light level.
- **GOAL FR D-17** Parking lot lighting shall not exceed Illuminating Engineering Society of North America recommended lumens.



Chapter 4: Economic Element

Introduction

Frederickson is unique among communities in Pierce County in that such a large portion of the community is devoted to industrial use, with nearly 30 percent of the community being designated for this type of activity. The Economic Element of the community plan focuses largely upon this aspect of the community emphasizing the Frederickson Employment Center and its important role in the overall economy of Pierce County. The Frederickson Employment Center is the largest designated industrial area in unincorporated Pierce County and is an essential



component of the County's goal of developing a jobs based economy. The community takes pride in their role in the regional economy and through the Community Plan seeks to promote the continued viability of the Employment Center.

INDUSTRY AND EMPLOYMENT

Nearly half of all the industrial-zoned land in unincorporated Pierce County is within the Frederickson Employment Center, which is a regionally-designated Manufacturing/Industrial Center (MIC). The MIC has many attributes attractive to potential industrial users, including large, undeveloped parcels of land that can accommodate a wide-range of industrial users, rail access, direct access to major transportation corridors, minimal environmental constraints, excellent soils, and availability of adequate sewer, water, and power utilities. Currently, approximately 30 percent of the total acreage within the Employment Center is vacant (791 acres). An additional 15 percent (396 acres) of the Employment Center is considered underutilized. Nearly 60 percent of this vacant and underutilized land is held in parcels that are 10 acres or larger in size.

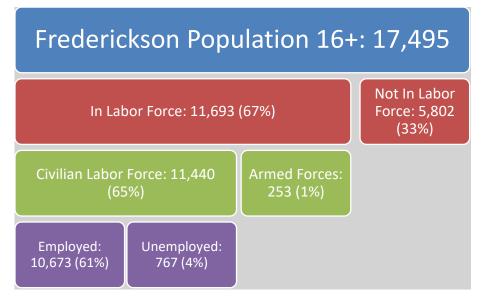
Growth within the Employment Center has been substantial over the past decade with the arrival of The Boeing Company, Toray Composites, and dozens of other small and medium-sized businesses. While much development has occurred within the Employment Center in recent years, significant growth capacity still exists.

Despite the presence of the Employment Center, Frederickson is still a bedroom community with most area residents commuting to job locations elsewhere. Residents travel to Tacoma, Puyallup, Auburn, military bases, and other employment locations in the region.

LABOR FORCE PARTICIPATION

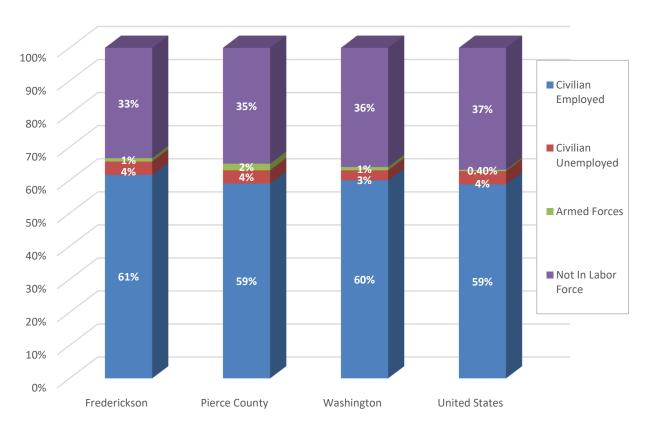
At 67 percent, labor force participation is slightly above the rates for Pierce County, Washington, and the U.S. The impact of JBLM can also be seen with Armed Forces employment higher than both Washington and the U.S. on average.

Figure D-14: Frederickson Labor Force Participation (2018)



Source: US Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.

Figure D-15: Labor Force Participation Comparison by Geography (2018)



EDUCATION

Educational attainment of the Frederickson population is similar to the rest of Pierce County, with a higher percentage of people 25-years and older having attained less than a high school education, especially males, but a lower percentage than the U.S. on average. Nearly one-third of the population reached high school graduation as their highest level of education. As with Pierce County as a whole, compared to Washington and the U.S., the Frederickson area tends to have a higher portion of people with "some college, no degree" and those who have received an Associate degree, with significantly lower rates for having received a Bachelor's or advanced degree.

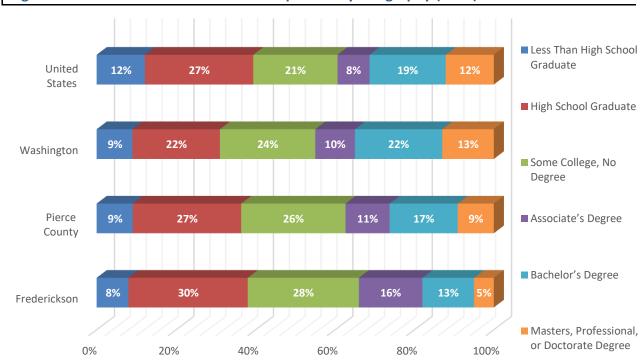
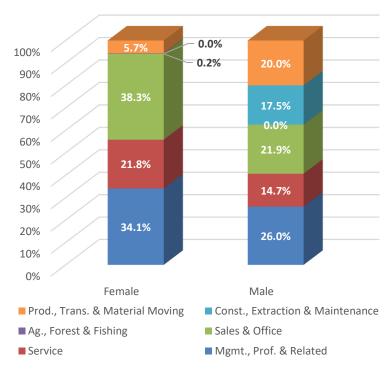


Figure D-16: Educational Attainment Comparison by Geography (2018)

OCCUPATIONS

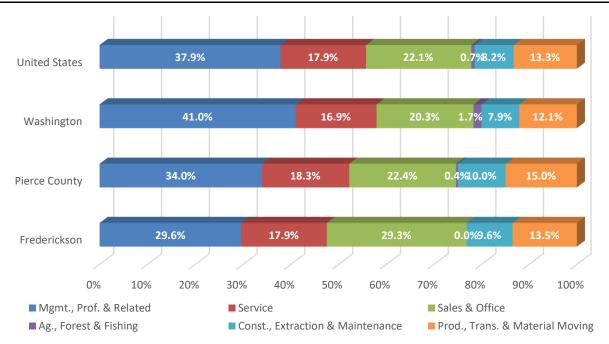
Comparing occupations for the total Frederickson employed civilian population shows the area is similar to the comparison areas, although somewhat lower in management, professional, and related occupations, and higher in sales and office. There are stark differences according to gender. Women are much more likely than men to work in management, professional and related occupations, service jobs, and especially sales and office, whereas men are much more likely to work in construction, extraction and maintenance or production, transportation, and material moving. Very few people are employed in agriculture, forestry, and fishing, but those that are tend to be male.

Figure D-17: Frederickson Occupations by Sex (2018)



Source: US Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

Figure D-18: Occupation Comparison by Geography (2018)



COMMUTING

Like much of the Pierce County labor force, residents of Frederickson spend a lot of time commuting to work. On average, residents are much less likely than those in the reference geographies to have a commute shorter than 15 minutes, and more likely to spend half an hour or more traveling to work. Only a small portion of the people who live in Frederickson actually work within the plan area. About 5 percent of the jobs located in the plan area are filled by people living there, and of the employed population, just over 2 percent work in the area, with the other 98 percent commuting out of Frederickson.

Figure D-19: Frederickson Commute Pattern



Source: US Census Bureau, LEHD On The Map

Figure D-20: Frederickson Commute Times (2018)

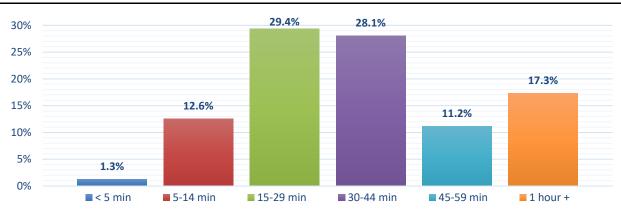


Table D-3: Commute Times Comparison by Geography (2018)

Time to Work	Frederickson	Pierce County	Washington	United States
< 5 minutes	1.3%	2.0%	2.7%	2.8%
5-14 minutes	12.6%	18.0%	21.7%	23.1%
15-29 minutes	29.4%	32.2%	35.7%	36.1%
30-44 minutes	28.1%	22.5%	21.3%	20.7%
45-59 minutes	11.2%	10.4%	8.7%	8.2%
1 hour+	17.3%	14.8%	9.9%	9.1%

INDUSTRIES

The largest share of jobs in the Frederickson area are in manufacturing, accounting for over 40 percent of all jobs located there. A quarter of the jobs in the plan area are in services and retail. Construction accounts for almost 13 percent of the jobs in the plan area. By contrast, just under 10 percent of the employed population works in manufacturing, while nearly 60 percent work in Retail and Services.

Table D-4: Frederickson Covered and Industry Employment (2018)

	Jobs Located in Community Plan Area		Occupation of Residents of Community Plan Area	
Industry	Count	Percent	Count	Percent
Const/Res	900	12.9%	970	9.4%
FIRE	100	1.4%	401	3.9%
Manufacturing	2,915	41.8%	961	9.3%
Retail	428	6.1%	1,454	14.0%
Services	1,234	17.7%	4,690	45.3%
WTU	568	8.2%	259	2.5%
Government	188	2.7%	582	5.6%
Total	6,966	100.0%	10,363	100.0%

¹ Surveyed jobs are limited to those positions that are covered by unemployment insurance (Covered Employment). Source: Puget Sound Regional Council; Washington State Employment Security Department

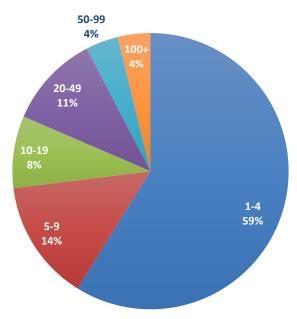
BUSINESS SIZE

While Frederickson is home to some of Pierce County's largest employers, those with 100 or more employees still account for only about 4 percent of all establishments. Companies with fewer than 10 employees in the Frederickson plan area represent about 73 percent of all employers.

Table D-5: Frederickson Number of Firms by Employees

Employer Size	Count	Percent	
1-4	216	59%	
5-9	52	14%	
10-19	31	8%	
20-49	40	11%	
50-99	14	4%	
100+	14	4%	
Total	367	100%	

Figure D-21: Frederickson Business Size



Source: Puget Sound Regional Council; Washington State Employment Security Department

²Source: US Census Bureau, 2014-2018 American Community Survey 5-Year Estimates

RETAIL SALES

The recent "Great Recession" is reflected in retail sales statistics. While the number of establishments reporting taxable retail sales from the Frederickson plan area grew steadily from 2001 through 2013, sales per establishment started declining in 2007. Year-over-year changes in taxable sales per reporting establishment show a steep drop-off, with a 46 percent decline from the pre-recession peak to the low point in 2012. Through the end of 2014, sales had recovered to about 67 percent of their pre-recession levels.

Table D-6: Frederickson Taxable Retail Sales

Year	Taxable Retail Sales	Retail Establishments	Sales Per Establishment	Year-Over Change
2001	\$131,887,824	500	\$263,776	
2002	\$150,018,980	533	\$281,462	637%
2003	\$156,346,031	595	\$262,766	-6.6%
2004	\$187,035,934	638	\$293,160	11.6%
2005	\$243,876,125	703	\$346,908	18.3%
2006	\$278,287,686	796	\$349,608	0.8%
2007	\$293,050,801	858	\$341,551	-2.3%
2008	\$275,686,910	925	\$298,040	-12.7%
2009	\$232,215,741	1,009	\$230,144	-22.8%
2010	\$231,233,093	1,129	\$204,812	-11.0%
2011	\$230,667,339	1,217	\$189,538	-7.5%
2012	\$229,626,113	1,218	\$188,527	-0.5%
2013	\$254,157,057	1,253	\$202,839	7.6%
2014	\$289,259,425	1,228	\$235,553	16.1%

Source: Washington State Department of Revenue

RETAIL CLUSTERS

The largest portion of retail establishments in the Frederickson plan area are classified as "Miscellaneous Store Retailers," and represent about 24 percent of all retail outlets. When combined with "Motor Vehicle and Parts," "Food and Beverage," and "Clothing and Accessories," together they represent over half of all retail establishments in Frederickson.

Table D-7: Frederickson Retail Clusters

NAICS	Description	Count	%
453	Misc. Store Retailers	190	27.27%
441	Motor Vehicle and Parts Dealers	96	12.26%
445	Food and Beverage Stores	84	10.73%
448	Clothing and Accessories Stores	79	10.09%
451	Sporting Goods, Hobby, Book, and		
	Music Stores	72	9.20%
444	Building Material & Garden Equip. and		
	Supplies Dealers	60	7.66%
443	Electronics and Appliance Stores	48	6.13%
454	Non-store Retailers	46	5.87%
442	Furniture and Home Furnishing Stores	44	5.62%
446	Health and Personal Care Stores	28	3.58%
452	General Merchandise Stores	20	2.55%
447	Gasoline Stations	16	2.04%
	Total Retailers	783	100.00%

Source: Dunn & Bradstreet

ECONOMIC STRATEGIES

EMPLOYMENT CENTER

The Frederickson Employment Center is envisioned as being a major source of future employment in Pierce County. In order to realize this vision and ensure that new uses have a beneficial impact on the community, care must be taken in the development of the Employment Center and surrounding properties. The siting, design, and approval of new uses must take into consideration employment density, aesthetics, impacts to surrounding properties, future transportation projects, and other factors. Industrial users will be more willing to locate in the Employment Center with future Canyon Road improvements, construction of the Cross-Base Highway, and extended freight rail services. Additionally, infrastructure improvements are necessary to make the Frederickson Employment Center an attractive place for industry to locate.

COMMERCIAL CORE

A viable and well-designed commercial core is desired in the community in order to better define Frederickson as a place and to provide for the goods and service needs of the community in an efficient manner. Attractive, commercial areas create a positive image for the surrounding residential neighborhood and stimulate investment, which in turn provide economic growth for the area and its residents, and an increased tax base for local government.

BUSINESS ASSISTANCE AND MARKETING

Local businesses struggle with a variety of issues such as marketing and promoting strategies, managing employees, capital for operations, upgrades, and expansions, and long-term business goals. This plan is intended to illustrate methods or strategies for helping local businesses within the communities plan area stay in business while still enhancing community values.

PUBLIC/PRIVATE PARTNERSHIPS

The community desire of a balanced economic environment often requires commitment by both the public and private sectors. Public involvement can include providing the necessary infrastructure, facilities, services, and financial incentives that promote commercial and industrial development. Private investment can construct and maintain existing commercial and industrial uses in a way that enhances the area's viability. The community also desires to highlight creative methods of public and private interaction that serve to increase the potential for commercial and industrial development within the plan area.

EMPLOYMENT OPPORTUNITIES

The economic prosperity of the local residents is an important goal of both the Growth Management Act and the local planning documents which are adopted to address economic development. This element should foster strategies which address the need to assure that unemployed, underemployed, and disadvantaged persons within the communities plan area have access to the local job market.

EDUCATION RESOURCES

The community recognizes that economic prosperity of the local residents is directly linked to successful educational programs. This element should foster strategies which address the need to assure that school districts continue to work with the local residents to develop goals and strategies that result in higher test scores, higher graduation rates, work study programs, and higher placement into institutions of higher education. Support for Bethel School District Skills Center and other occupational education programs and facilities should be encouraged and utilized to achieve community goals.

ECONOMIC DEVELOPMENT POLICIES

GOALS

The following statements comprise the goal for economic development in the Frederickson community:

- Encourage economic investments which will result in a variety of family wage job opportunities and help to create a well balanced economic base;
- Economic activities are encouraged, but not to the detriment of either the natural environment or residential neighborhoods as identified in this plan. Minimum design requirements, including but not limited to, aesthetics, noise, and odor control, will be achieved;
- The type and scale of economic development proposed for specific locations in the community shall be compatible with nearby residential neighborhoods and other land uses. New uses will be designed and located in manner that minimizes impacts on surrounding properties and the community;
- Ensure that allowed uses adjacent to the Employment Center will be controlled so as to minimize compatibility problems in the future;
- Promote a mix of industrial and commercial uses that will generate sufficient tax revenue to provide the community with an opportunity to establish an economicallyviable local government;
- Coordinate transportation with traffic types related to different industries; and
- Encourage growth in industry and commercial to provide a variety of skilled workers and wages. Focus on businesses that provide a higher number of jobs with high living wages.

EMPLOYMENT CENTER

- **GOAL FR EC-1** Expedite State Environmental Policy Act (SEPA) review for permits in the Frederickson Employment Center.
 - FR EC-1.1 Use existing State Environmental Policy Act (SEPA) documents, buildable land, wetland, steep slope, and traffic count information, as well as information from environmental analysis from other projects within the Employment Center to expedite environmental review.
- GOAL FR EC-2 Provide expedited review of development permits within the Employment Center with issuance of permits as soon as possible following the submittal of a complete application.
 - **FR EC-2.1** Give Executive priority to proposals within the Employment Center in the development review process.

- **FR EC-2.2** Establish an ombudsman/permitting team for the Employment Center.
- FR EC-2.3 Monitor permit issuance timelines within the Employment Center and take corrective actions as necessary to achieve permit issuance goals.
- GOAL FR EC-3 Identify and correct infrastructure deficiencies that impede development of the center.
 - **FR EC-3.1** Establish a task force to identify gaps in water, sewer, transportation and other infrastructure within the Employment Center.
 - **FR EC-3.2** Work with the appropriate service provider to address infrastructure deficiencies.
 - **FR EC-3.3** Encourage businesses within the Employment Center to consider the use of freight rail service as an alternative to truck transport.
 - **FR EC-3.4** Expand the rail system to serve the Employment Center.
- GOAL FR EC-4 Monitor areas designated for commercial and industrial development, redevelopment, and revitalization to determine if the actual level of development provides an adequate amount of land for economic growth and vitality within the community plan area.
 - FR EC-4.1 Pierce County shall track annual development of commercial and industrial uses within the community plan area to determine if it is consistent with the levels of anticipated growth.
- GOAL FR EC-5 Monitor a variety of economic indicators to determine if policies contained within this plan are meeting the objectives for economic growth and vitality.
 - **FR EC-5.1** Pierce County shall prepare a report related to annual economic indicators every five years or in conjunction with a community plan update, whichever comes first.
 - FR EC-5.2 Economic indicators shall include but are not limited to the following: taxes in the area, new construction permits, business licenses, increase/decrease in the standard of living, wage levels, business stability/turnover (if declining or high turnover, what kind, how many and why), kinds of businesses the community attracts and why, and police activity (crime level increasing/decreasing, graduation/drop-out rates).
 - FR EC-5.3 Monitoring shall include ongoing review of consistency with and progress toward financial feasibility for viability as a future city under State RCW.

BUSINESS ASSISTANCE AND MARKETING

GOAL FR EC-6 Seek the support of business organizations and associations to provide marketing and promotion assistance to businesses within the community plan areas targeted for commercial and industrial development, with a focus on the smaller industrial-designated areas throughout the plan area.

- FR EC-6.1 Request that the Economic Development Department of Pierce County and other appropriate organizations prepare a market assessment for the Frederickson area to help determine the market strengths and weaknesses of the area.
- FR EC-6.2 Market assessments shall provide an update of the commercial and industrial market through analyzing the area's past and recent performance in the various sectors; documenting existing conditions, emerging trends, opportunities, and constraints (i.e., the depth of the market); and identifying a portfolio of key properties and development opportunities.
- **FR EC-6.3** The market assessment shall help rank and prioritize the potential target areas for the receipt of public improvements.
- FR EC-6.4 Utilize existing or form new local business associations to help develop common promotion (advertising, joint merchandising, and special events) and future business development (leasing, business recruitment, and market research) within selected commercial target areas.
- **GOAL FR EC-7** Provide educational opportunities to businesses within the community plan area on community values.
 - FR EC-7.1 Pierce County shall promote amenities within the commercial areas that address safety, adequate lighting and parking, and cleanliness through development of policies and implementing actions in the Land Use and Community Character and Design elements.
 - FR EC-7.2 Pierce County shall maintain current commercial and industrial site survey information, such as available and projected public services, surrounding land uses, transportation capabilities, critical areas, and other relevant economic information.

PUBLIC/PRIVATE PARTNERSHIPS

- GOAL FR EC-8 Pierce County shall participate in special public/private ventures within the community plan area when such ventures provide public benefits, support commercial or industrial development or commercial revitalization policies, and are appropriate to the long-range goals of the County.
 - FR EC-8.1 Pierce County shall seek opportunities to act in partnership with the private sector to fund infrastructure as part of the community plan to encourage redevelopment to convert outdated and underutilized land and buildings to high-valued or appropriate land uses.
 - FR EC-8.2 Pierce County shall budget for public infrastructure to encourage commercial and industrial development, with the priority towards those areas with substantial private development.
- GOAL FR EC-9 Ensure access to jobs within the community plan area by coordinating public transportation between residential areas and commercial and Employment Center sites.

- FR EC-9.1 Encourage Pierce Transit to route bus service between and through residential neighborhoods and commercial and Employment Center sites and in those corridors such as Canyon Road East and 176th Street East, where service is currently not provided.
- **FR EC-9.2** Encourage employers to promote rideshare and public transportation subsidies for employees who utilize public transportation.
- FR EC-9.3 Encourage express bus service or bus rapid transit service from the vicinity of the Frederickson Employment Center at 176th Street East and Canyon Road East with connections to regional transit centers in Puyallup and Tacoma.

Chapter 5: Environment Element

Introduction

The Environment element addresses the protection and conservation of the natural resources in the Frederickson community, such as water, air, vegetation, fish, and wildlife. The residents of the Frederickson community are concerned about the loss and continual degradation of natural resources that have occurred over the past couple of decades.

The Frederickson community, like many suburban communities, assigns high value to the trees, streams, and other natural areas within its boundaries. These areas contribute



to the quality of life experienced by the community's residents and are important aspects of the community's identity.

Like many communities in Pierce County, residents of Frederickson have seen much degradation of the natural environment over the past 30 years as growth has occurred. This pattern of degradation is expected to continue and is inevitable as the population of the area continues to grow. The community realizes that action must be taken now in order to ensure that those elements of the natural environment most important to the community are preserved for present and future generations.

The long-term protection of Clover Creek is important to the community. This creek is one of the most significant natural features in the community and provides essential habitat to a variety of fish and wildlife species, including salmonids. Clover Creek is also one of the largest stream systems in urban Pierce County and is designated as a Shoreline of the State. In addition to its high environmental value, the creek also provides a link to the community's past as it was essential to the early settlement of the Frederickson area. Much of Frederickson's early identity was drawn from the creek and the creek continues to be a community symbol today. Continued urban development in the community poses a significant threat to the health of the creek. Ensuring Clover Creek is adequately protected as the community grows is a key component of the community plan.

The preservation of tree cover is an area of concern for the community. The trees and vegetation of the Pacific Northwest offer valuable habitat to wildlife while providing the human environment with visual relief, shade, noise barriers, and an opportunity for integration of the earth's natural resources. Reducing future tree loss in the community is another key component of the Frederickson Community Plan.

Conservation of open space is also a high priority of the community. Open areas have been lost at a rapid pace as new development has occurred in the community. The community plan identifies the remaining highest valued open space areas and encourages public and private acquisition of these areas for long-term preservation. Significant emphasis is given to conservation of open space along Clover Creek. In addition to acquisition, the community plan also seeks to maintain open space in other areas of the community through the use of

developer dedication, transfer of development rights, and other methods.

Lastly, the community plan also recognizes and seeks to protect the quality of several other important environmental attributes, including ground and surface water quality, air quality, and light and noise levels. Policies and implementing regulations set forth in the community plan contain a variety of strategies addressing these areas.

EARTH RESOURCES

(Sources: Soil Survey of Pierce County, 1979; Pierce Co. Critical Areas Atlas, 1991; Groundwater Occurrence and Stratiography of Unconsolidated Deposits, Central Pierce Co.; and, Potential Hazards From Future Eruptions of Mount Rainier, Washington, 1973)

Soils

According to the Pierce County Soil Survey, sixteen soil types occur within the plan area. Of these sixteen, three are most dominant: Everett gravelly sandy loam; Kapowsin gravelly loam; and Spanaway gravelly sandy loam. Approximately 89 percent (6,703 acres) of the plan area falls into these three soil types.

Spanaway and Everett gravelly sandy loams are well-drained and experience little surface water runoff. The high permeability of these soils has made them desirable for development as stormwater runoff is easily controlled and on-site septic systems are viable. Consequently, large areas of these soil types have been developed with single-family homes utilizing on-site septic

The remaining approximately 825 acres of the plan area contains 13 different soil types exhibiting a range of characteristics:

- 230 acres are classified as hydric and are very poorly drained. These hydric soils include Bellingham silty clay loam, DuPont muck, Tanwax muck, and Tisch silt. Hydric soils are often characterized by the presence of wetlands and other water features and often experience flooding problems. The largest area of hydric soils is located along Clover Creek.
- 180 acres are classified as Everett stony loamy sand. This soil type is very stony and is highly permeable. Surface water infiltration is rapid with little or no surface water runoff occurring. The largest pocket of this soil type in the plan area is approximately 150 acres in size.
- 115 acres are classified as Alderwood gravelly sandy loam. This soil type is moderately well drained. A perched water table may occur for short periods during the spring and winter rainy seasons. The soil generally is not well suited to on-site septic system usage due to the seasonal perched water table.
- The remaining 300 or so acres contain Indianola loamy sandy, Kitsap silt loam, Ragnar sandy loam, Spana loam, Neilton gravelly loamy sand, fill areas, and gravel pits. These soil types occur in pockets of 30 acres or less in size if scattered throughout the plan area.

systems. Kapowsin gravelly loam is less well drained and experiences a shallow perched water table during the rainy season. The seasonal shallow water table makes stormwater control more difficult. On-site septic systems generally do not function well in this soil type. As a consequence, development in these areas has been limited primarily to single-family homes on large lots.

TOPOGRAPHY

The majority of the plan area consists of relatively flat uplands with slopes of 6 percent or less. Scattered throughout the plan area are long, narrow, moderately steep slopes that break abruptly along the edges of the upland areas. In general, these slopes have grades of 15 percent to 30 percent. However, there are a few areas where slopes exceed 30 percent. This pattern of topographic breaks along the edges of large, relatively flat upland areas is most prevalent in the northern portion of the plan area which drains to Clover Creek. Areas with slopes of 15 percent or greater total approximately 485 acres or 6.6 percent of the total plan area. Areas having slopes of 15 percent or greater are considered potential landslide and erosion hazards areas. Development in these areas is controlled by Pierce County's Critical Area Regulations. These regulations generally require that these slopes remain in an undisturbed condition and that development be setback a certain distance from the slope areas.

SEISMIC HAZARD AREAS

Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, or soil liquefaction. Seismic hazard areas are noted by the presence of alluvial surficial geology or recessional outwash geology overlain by Barneston, Everett, Neilton, Pilchuck, or Spanaway soils. There are two areas of potential seismic hazard mapped within the community. These areas are located in the eastern portion of the plan area. Approximately 400 to 500 acres of seismic hazard area are centered on the intersection of 78th Avenue East and 184th Street East. An additional 100 or so acres are located along the eastern boundary of the plan area between 160th Street East and 170th Street East.

New land use activities within seismic hazard areas are subject to more stringent engineering requirements, including the submittal of geotechnical reports with recommendations for mitigation measures to be taken to reduce the risk of structural damage from a seismic event. Single-family homes less than 5,000 square feet in size and subdivision of property are exempt from the geotechnical reporting requirements.

WATER RESOURCES

(Sources: Flood Insurance Rate Maps, FEMA; National Wetlands Inventory; Pierce Co. Wetlands Inventory; WDFW Streamnet; and, Groundwater Pollution Potential (DRASTIC) maps, 1998)

SURFACE WATERS

There is one stream (Clover Creek), three small ponds/lakes, and several small, unnamed drainage channels within the community plan area. Clover Creek is classified as a Type 1 stream along most of its length and is listed as a Shoreline of Statewide Significance. Coho salmon presence is noted by the Washington State Department of Fish and Wildlife.

The headwaters of Clover Creek originate in the community plan area and are formed by a series of springs at the base of steep slopes, east of Canyon Road. They are located on large parcels owned by Tacoma City Water and the Tacoma Sportsman Club, which are largely forested with second-growth timber and contain multiple springs and wetlands. The three lakes/ponds include Stony Lake, which is



approximately 13.2 acres in size, and 2 unnamed lakes/ponds of 1.1 and 0.58 acres each.

CLOVER CREEK, HEADWATERS, AND ASSOCIATED WETLANDS AND FLOODPLAINS

Clover Creek and its associated wetlands and floodplains are identified as being of high ecological importance, providing habitat for a wide variety of fish, wildlife, and plant species. Most notably, the headwaters area of Clover Creek is presently intact and functioning well. Preserving the integrity of Clover Creek and its headwaters area and restoring the natural functions and values of this stream system is one of the highest priorities of the community plan.

Much of the area along Clover Creek is currently undeveloped, including the headwaters area. Where development has occurred, it is generally of low density and large lot size reflective of the environmental limitations of this area. The community plan recognizes this trend and recognizes these constraints through a zone classification that will limit the density and intensity of development to better coincide with the development capacity and capability along the creek.

The community plan contains policies calling for additional study of the headwaters area to better identify and protect the freshwater springs located there, which are so vital to the creek's continued ecological and hydrological integrity.

FLOOD HAZARD AREAS

Flood hazard areas that have been mapped by the Federal Emergency Management Agency (FEMA) and the County are shown on the FEMA flood insurance rate maps (FIRM). The FIRM that became effective March 7, 2017, significantly refined the areas at risk of flooding. Less than 6 percent of

Pierce County defines flood hazard areas as those lands "in a floodplain within Pierce County subject to a one percent or greater chance of flooding in any given year." the plan area, 460 acres, are regulated as a flood hazard area. About half of the floodplain has been modeled by FEMA to be at risk of the one-percent-annual-chance flood (aka the 100-year flood) and shown as a Zone "AE." FEMA requires flood insurance for structures in these areas if

there is a federally-backed loan. The other half of the mapped hazards are based on pothole analysis and observed high groundwater flooding events. These are mapped on the FIRM as a Zone "X (shaded)," meaning either the contributing pothole was less than one square mile or the base flood elevation could not be determined by standard method. This is typical of groundwater flooding areas where the flood occurs months after the rain that caused it has fallen. Both of these areas must meet the County's Critical Areas Ordinance, and all buildings in these areas are recommended to have flood insurance.

A 2008 National Marine Fisheries Services Biological Opinion determined that continued development to FEMA's minimum standards will cause jeopardy to listed species of salmonids and orcas. Pierce County was recognized as having some of the best practices in the region for protecting the habitat in flood hazard areas, but must now continue to meet the federally required practices and increase habitat reviews for projects near streams and floodplains.

WETLANDS

Pierce County uses the National Wetlands Inventory (NWI), Pierce County Wetlands Inventory (CWI), and site-specific investigations to determine the presence of wetlands. The CWI indicates that there are 98 wetlands in the plan area. These wetlands have a combined area of 645 acres. Approximately 8.5 percent of the plan area is classified as wetland

If an average buffer size of 75 feet (average of buffer width for Category II and III wetlands) is applied to the wetlands in the plan area, the acreage affected by wetlands increases from 645 acres (total wetland acreage) to 1,068 acres (total wetland acreage with 75-foot buffers). When buffers are considered, approximately 14 percent of the plan area is affected by wetlands.

Wetlands

Wetlands are areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support vegetation adapted to life in saturated soil conditions.

Examples include swamps, marshes, bogs, and potholes. Wetlands are of significant biological and physical value and are protected under federal, state, and local laws.

Wetlands in Pierce County are classified and protected according to category:

- Category I wetlands are the most valuable wetland systems and are typically large, diverse wetlands which provide habitat for threatened or endangered species. They are protected with a 150-foot buffer.
- Category II wetlands are typically large, diverse systems that provide significant habitat. They are protected with a 100-foot buffer.
- Category III wetlands are wetlands that do not meet the criteria of Category I, II, or IV. They are protected with a 50-foot buffer.
- Category IV wetlands are the least valuable, and are hydrologically isolated, less than one acre in size, and have only one dominant plant species. They are protected with a 25-foot buffer.

Most wetlands in Pierce County fall into either Category II or III.

GROUNDWATER

Frederickson is located in the regional recharge area for the Clover/Chambers Creek aquifer system. There are multiple layers of aquifer generally separated by a confining till layer. The shallowest aquifer is present at the surface in much of the area with a thickness that varies from less than 35 feet to about 150 feet (USGS, 2010-5055). The geology of the majority of plan area is such that infiltration of rainfall is rapid. This high degree of permeability makes the groundwater in the area very susceptible and vulnerable to contamination. Pierce County has established regulations intended to prevent or minimize potential impacts to groundwater resulting from new land use activities within this area.

Groundwater flooding is the dominant type of flooding problem in sub-basins near Stoney Lake, Eustis Hunt Road East, and 192nd Street East and Canyon Road East. During years with high annual rainfall, groundwater levels in the aquifer come to the surface in low-lying depressions and potholes. Groundwater flooding in the sub-basins follows the path of groundwater flow, originating in the southeast and moving to the northwest toward Puget Sound. This movement of groundwater can be observed by the timing of the flooding. Floods occur first in areas such as 204th Street East and 67th Avenue East. They then move northwest to Stoney Lake, and then north to the Brooktree Additions near Clover Creek. These areas have no surface connection but appear to be entirely connected by the groundwater system. Because the frequency and magnitude of flooding is controlled by cumulative annual precipitation, this type of flooding may not occur even during heavy rainstorms when other surface flooding is occurring. In between times of groundwater flooding, the areas can appear very dry and suitable for development.

When the groundwater reaches the surface in low spots of the topography, the flooding is an extension of the groundwater elevation. This flooding can last for days, weeks, or even months depending on the amount of precipitation recharging the aquifer and the rate of movement of the groundwater through the subsurface as it moves northwest to Puget Sound. This is the case in the Fredrickson area at 192nd Street East, where flooding occurred for three months in 1996, again for five months in 1997, and for just a few days in 1999 (URS, 2001).

Pierce County defines flood hazard areas as those lands "in a floodplain within Pierce County subject to a one percent or greater chance of flooding in any given year."

Overflow from Stoney Lake occurs through both surface and subsurface pathways. Surface water discharges through a swale at the north end of the lake. Groundwater flows north from the lake along the same route as the swale and then continues along a belt-shaped path to midway between Military Road East and 176th Street East. Flooding of private properties occurs along this narrow flow path during periods of high groundwater. Land use in the area is currently a mix of low-density residential and open space parcels. Two homes on the north side of 182nd Street East have flooded during these events. Levees were constructed on both sides of the swale to protect the homes and flooding of the two homes has not occurred since. Flooding of other homes and buildings along the swale have not been reported. Future

development in areas tributary to the lake is unlikely to have a significant impact on this flood problem as the soil is highly pervious and infiltration is the primary means of stormwater removal.

During periods of high groundwater, 192nd Street East becomes inundated. Water over the road during the last high groundwater flood event reached a depth of three to five feet. Approximately 25 acres, including the roadway and adjacent land, was flooded. URS evaluated groundwater flooding in the Frederickson area for the County, which also included groundwater flooding at this site. URS developed a predictive equation, based on three-month antecedent precipitation, to identify when flooding may be imminent (Groundwater Flooding Evaluation Fredrickson, Pierce County, URS, 2000).

WATER QUALITY

Water quality in Clover Creek is showing impacts from pollution in the Fredrickson area. Recent studies by the Washington State Department of Ecology indicate that Clover Creek does not support the assigned habitat or recreational use criteria to meet a state water quality standard. Specifically, data indicate that fecal coliform, pH, temperature, and dissolved oxygen levels are outside acceptable levels. The community supports continued regulatory efforts by local government aimed at protecting ground and surface water quality and desires that these regulations be properly enforced. Specifically, the community supports the Clover Creek Total Maximum Daily Load (TMDL) Alternative which is developing actions aimed at reducing the impacts of stormwater and non-point source pollution on Clover Creek. The community also supports the use of low impact development techniques to minimize impacts to ground and surface water quality associated with new development.

FISH AND WILDLIFE HABITAT

(Source: WDFW PHS Digital Database)

PRIORITY HABITAT AND SPECIES

Priority fish and wildlife habitat and species locations have been mapped by the Washington State
Department of Fish and Wildlife (WDFW) and are identified in WDFW's Priority Habitat and Species
Database. This database indicates that there are 25 such areas within Frederickson. Of these 25 areas, 20 are associated with wetlands or streams, three are areas of seasonal waterfowl concentration, and two are large areas of relatively undisturbed natural vegetation.

Pierce County protection of these areas is limited to wetlands, streams, and those areas that provide



habitat for state or federally listed threatened, endangered, candidate, monitored, or sensitive species. Accordingly, 20 of the 25 areas are protected to some degree through the establishment of protective buffers for associated streams or wetlands. The remaining five areas are not documented as providing habitat for protected species and as a consequence are currently not protected by Pierce County's critical area regulations.

AIR QUALITY

(Source: 1998 Washington State Air Quality Annual Report, April 1999)

The Washington State Department of Ecology and the Puget Sound Clean Air Agency monitor air quality in the Puget Sound Area. In Pierce County, air quality monitoring stations are located at Milton, Tacoma Tideflats, south of Puyallup, Eatonville, and Mount Rainier. These stations track numerous air pollutants including particulate matter, carbon monoxide, ozone, nitrogen dioxide, sulfur dioxide, and lead. The sources of these pollutants include motor vehicles, industrial emissions, residential woodstoves and fireplaces, outdoor burning, and other sources.

Nearly 50% of our greenhouse gas pollution comes from transportation – cars, trucks, trains, ships, etc.

Wood stoves and fireplaces are the largest source of wintertime particle pollution, generating an estimated 63% of all particle pollutants in Pierce County.

Air quality standards are established by the Environmental Protection Agency (EPA) and Washington State. Failure to meet the established standards results in an area being designated as a "nonattainment area" by the EPA. When an area is designated as nonattainment, a plan is required to be developed to bring the area back into compliance with the established standards. As of 2015, the air quality of the Puget Sound region, including Pierce County, is in compliance with established standards. The trend in air quality over the past ten years in the Puget Sound region has been one of continuing improvement.

TREE COVER

Frederickson residents highly value the remaining forests and areas of significant vegetation. New development will not occur without retaining trees on the property or, at a minimum, replacing them with like kind. In recognition of the high priority placed on tree and vegetation retention, the community plan contains a number of policies on the subject and regulations are included with the plan implementation package. It is recognized that trees and vegetative cover not only provide habitat for wildlife, but also alleviate the impacts of high density or intensive developments. Trees act as buffers from noise, light, and glare, provide shade and areas for children to play, and reduce air pollution through the uptake of contaminants.

In past surveys, open houses, and public meetings, the residents of Frederickson have repeatedly expressed concern about the continuing loss of tree cover within the community. It is estimated that more than 50 percent of the tree cover in the community has been lost over the past 40 years as a result of land clearing and development activities. During this same time period, heavily forested areas in the community (areas with more than 70 percent tree canopy

cover) have been decreased by more than 75 percent, while areas having little or no canopy cover have increased by more than 60 percent.

Change in Tree Canopy 1972-1996 3,500 2,894 Total acres of 3,000 canopy 2,500 **Total Acres** 1,860 2,000 1,395 1,500 Acres with more than 70% 1,000 canopy cover 500 0 1972 1986 1996 Year

Figure D-22: Change in Tree Canopy (1972-1996)

OPEN SPACE

An important step toward integrating the built and natural environments is recognizing the role of open space corridors. The open space corridors in Frederickson coincide with wetlands, flood hazards, slopes, and streams. Emphasis is given to preservation of lands along Clover Creek. The community plan strives to preserve these resources through policies, regulations, and long-term educational outreach. Open space corridors in Frederickson are also inclusive of Priority Habitat and Species as listed on Washington Department of Fish and Wildlife maps. The community plan prioritizes the acquisition of open space in environmentally constrained areas. The County's Conservation Futures Program is recognized as a key tool to help preserve these areas into perpetuity. Stewardship and management plans that address long-term protection and maintenance should also be developed. In addition to public acquisition efforts, a variety of other open space acquisition and conservation strategies are suggested to ensure long-term preservation.

ENVIRONMENT POLICIES

GOALS

Protecting the health of the natural environment and providing adequate parks and other public and private open space areas are of high importance and interest to the community. These features must be present to achieve the high-quality living environment envisioned in the plan. At a minimum, the plan will strive to ensure:

- The area's natural resources, natural beauty, and livability will be maintained and preserved by ensuring that when development occurs, changes to vegetation, topography, and surface water runoff characteristics will be minimized;
- Surface and ground water quality will be protected by controlling the intensity and density of land uses within sensitive areas and by enforcing existing regulations aimed at protecting streams, wetlands, and aquifer recharge areas;
- Areas of critical importance to fish and wildlife will be adequately protected; and
- Tree cover will be maintained in the community through tree preservation, replacement, and restoration.

CLOVER CREEK AND ASSOCIATED RESOURCES

- **GOAL FR ENV-1** Maintain the natural functions and values of Clover Creek and its associated wetlands and floodplains to the greatest extent possible as the community continues to urbanize.
 - FR ENV-1.1 Manage land use in the vicinity of Clover Creek and associated wetlands and floodplains so as to maintain, and where appropriate, restore the natural hydrologic and habitat values of this system.
 - FR ENV-1.2 Adopt development standards and zoning restrictions that strive to maintain sufficient habitat adjacent to Clover Creek and other riparian areas to meet the needs of terrestrial species, including sufficient travel corridor widths and sufficient areas for cover, foraging, and other habitat requirements.
 - FR ENV-1.2.1 Apply resource-based zoning to lands that contain or are adjacent to designated riparian corridors and other significant habitat areas. The goal of this zoning is to ensure the conservation of the habitat functions and values these areas provide. At a minimum, these performance standards should address intensity of land use (density, impervious surfaces, etc.), open space and vegetation retention, surface water management, and lighting and noise control.

- Pevelop a system of incentives and credits to encourage greater protection of designated riparian corridors and other significant habitat areas. This system could provide for on and off-site density transfers, variances to bulk requirements (e.g., building setbacks, lot sizes, roadway widths, etc.), and property tax incentives.
- FR ENV-1.2.3 Pierce County shall implement the actions identified in the Clover Creek TMDL Alternative Plan to protect and improve water quality in Clover Creek.
- **GOAL FR ENV-2** Identify and remove barriers to fish passage in Clover Creek.
 - **FR ENV-2.1** Prioritize correction of any fish blockages in the next Capital Improvement Program update.
 - **FR ENV-2.2** Reconstruct infrastructure that acts as a barrier to fish passage as part of any public road or utility projects associated with the blockage.
 - **FR ENV-2.3** Reduce culverts and encourage bridges, when needed, when constructing or reconstructing water passages under roads.

SURFACE AND GROUNDWATER RESOURCES

- **GOAL FR ENV-3** Protect and conserve groundwater supplies contained within the Chambers-Clover Creek aquifer.
 - FR ENV-3.1 Install signage around the perimeter of wellhead protection areas and/or the most sensitive aquifer recharge areas.
 - **FR ENV-3.2** Maintain the natural hydrologic conditions within the community to the greatest extent possible.
- GOAL FR ENV-4 Support the use of low impact development as implemented by the Pierce County Stormwater Management Manual.

TREE COVER AND VEGETATION RESOURCES

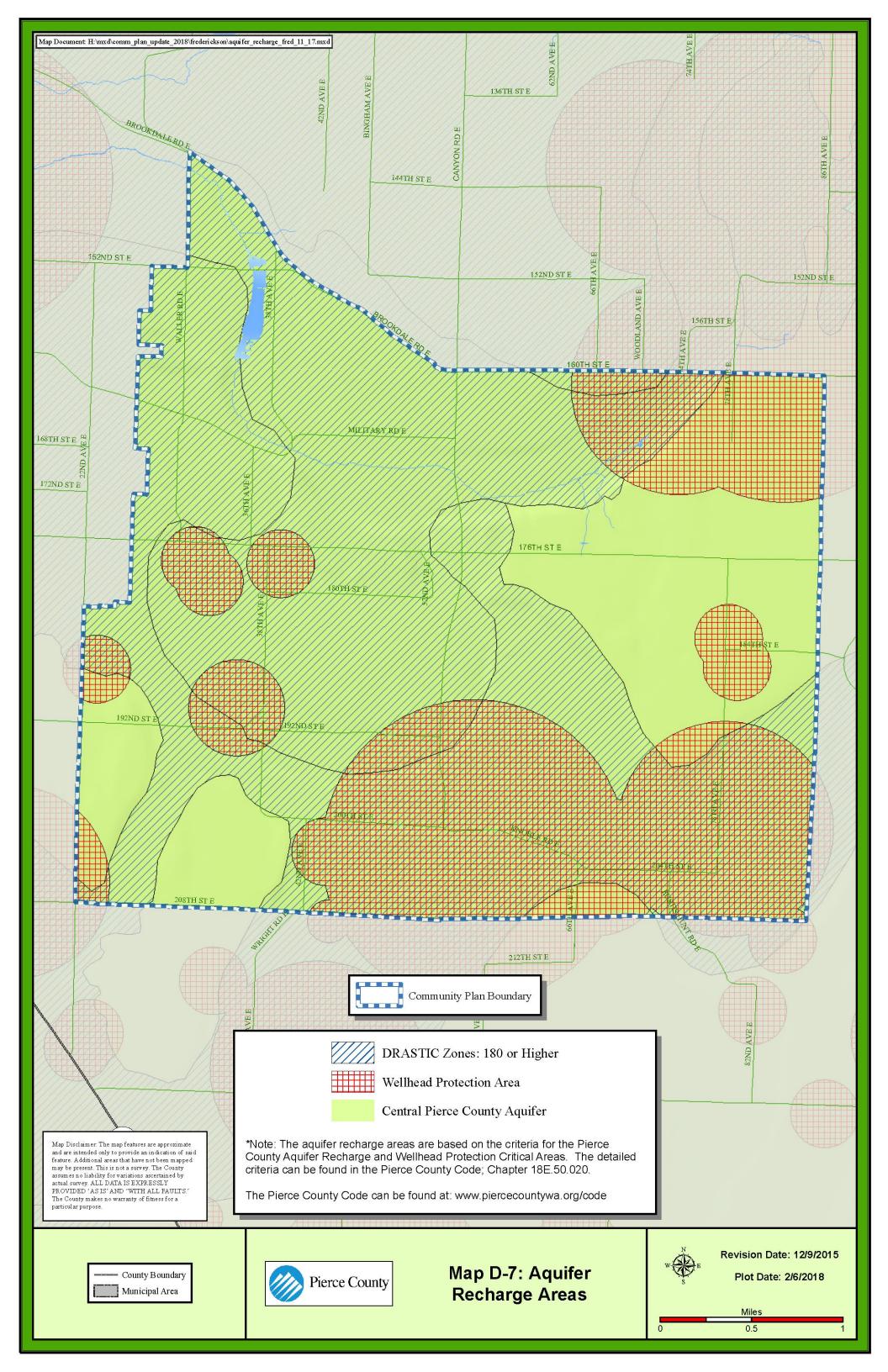
- GOAL FR ENV-5 Emphasize the conservation and restoration of tree canopy cover and wooded areas, in order to ensure the protection and preservation of the important and necessary environmental functions and processes provided by these resources and the high value placed upon these resources by the community.
 - **FR ENV-5.1** Promote the long-term conservation of trees, wooded areas, and native vegetation within the community.
 - FR ENV-5.2 Sites that contain too few trees to meet the minimum tree conservation standards shall be required to plant supplemental trees as necessary to achieve the standards.

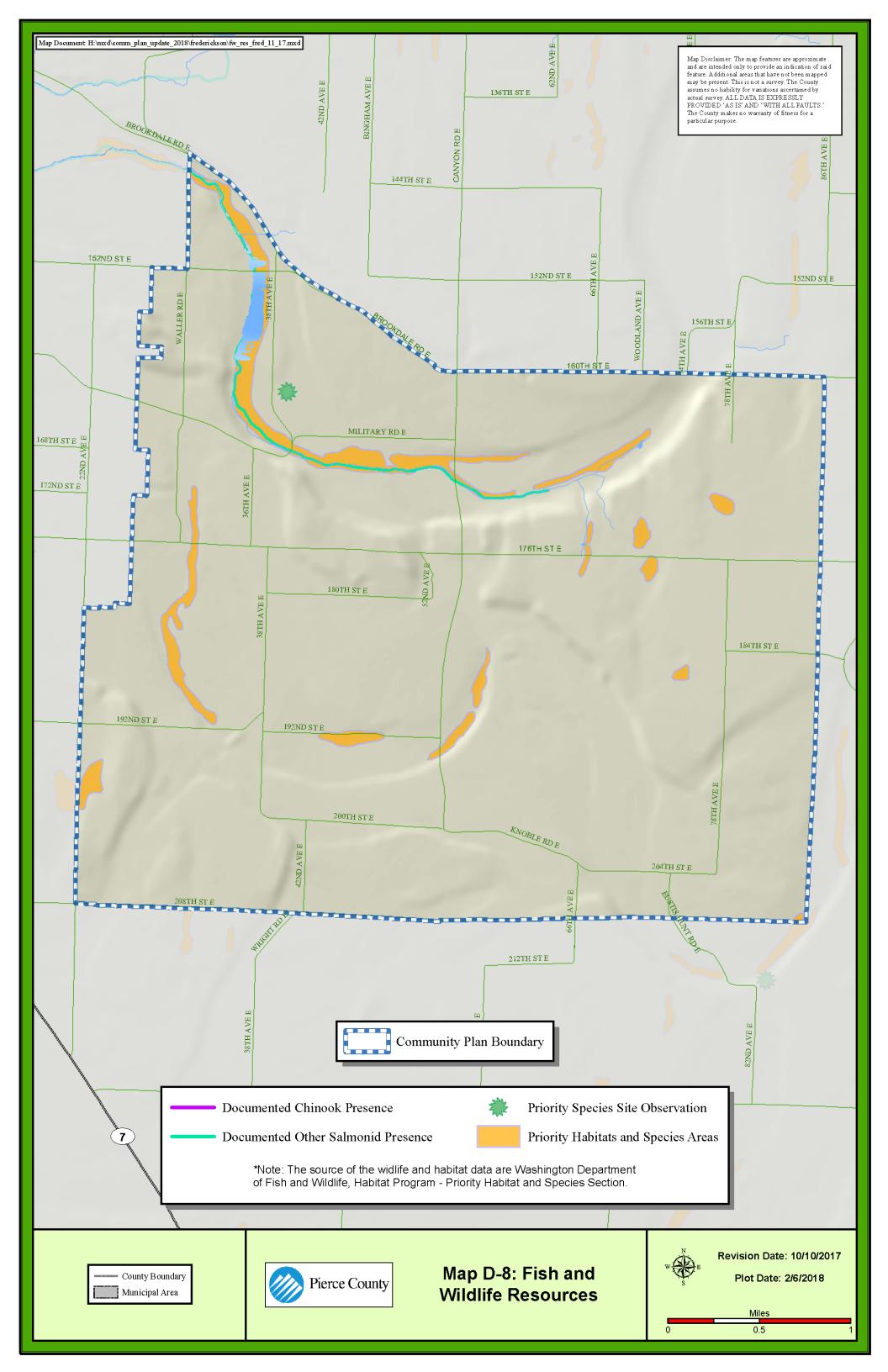
- FR ENV-5.3 Trees selected for planting must be compatible with the natural and built features of the site. Emphasis should be given to the use of native tree species, whenever feasible.
- FR ENV-5.4 Monitor construction activities to ensure developer compliance with vegetation retention and replacement requirements. In the event violations of these requirements occur, withhold occupancy permits, final plat approval, and other needed final approvals until such time as the violations are rectified.

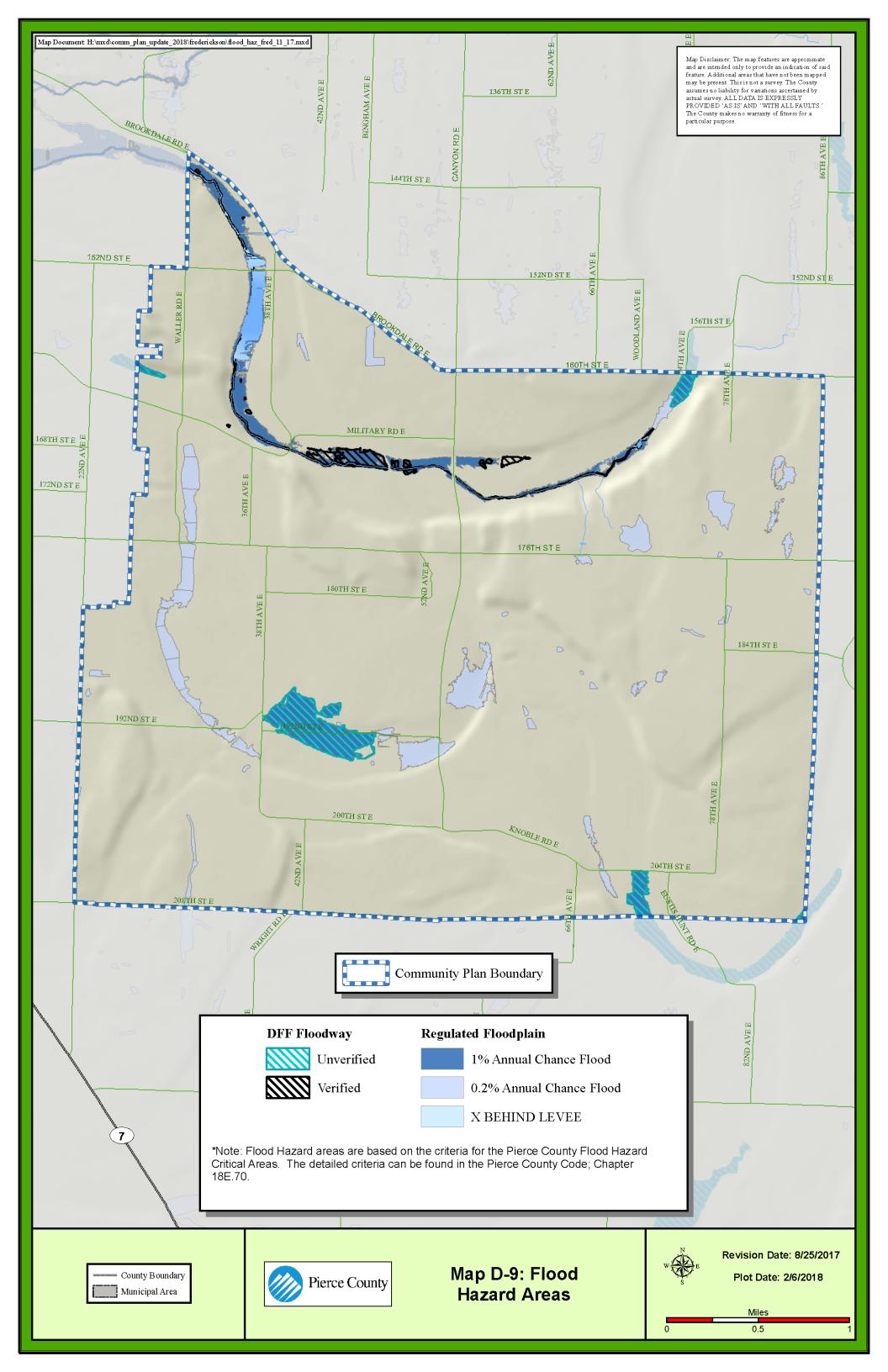
OPEN SPACE

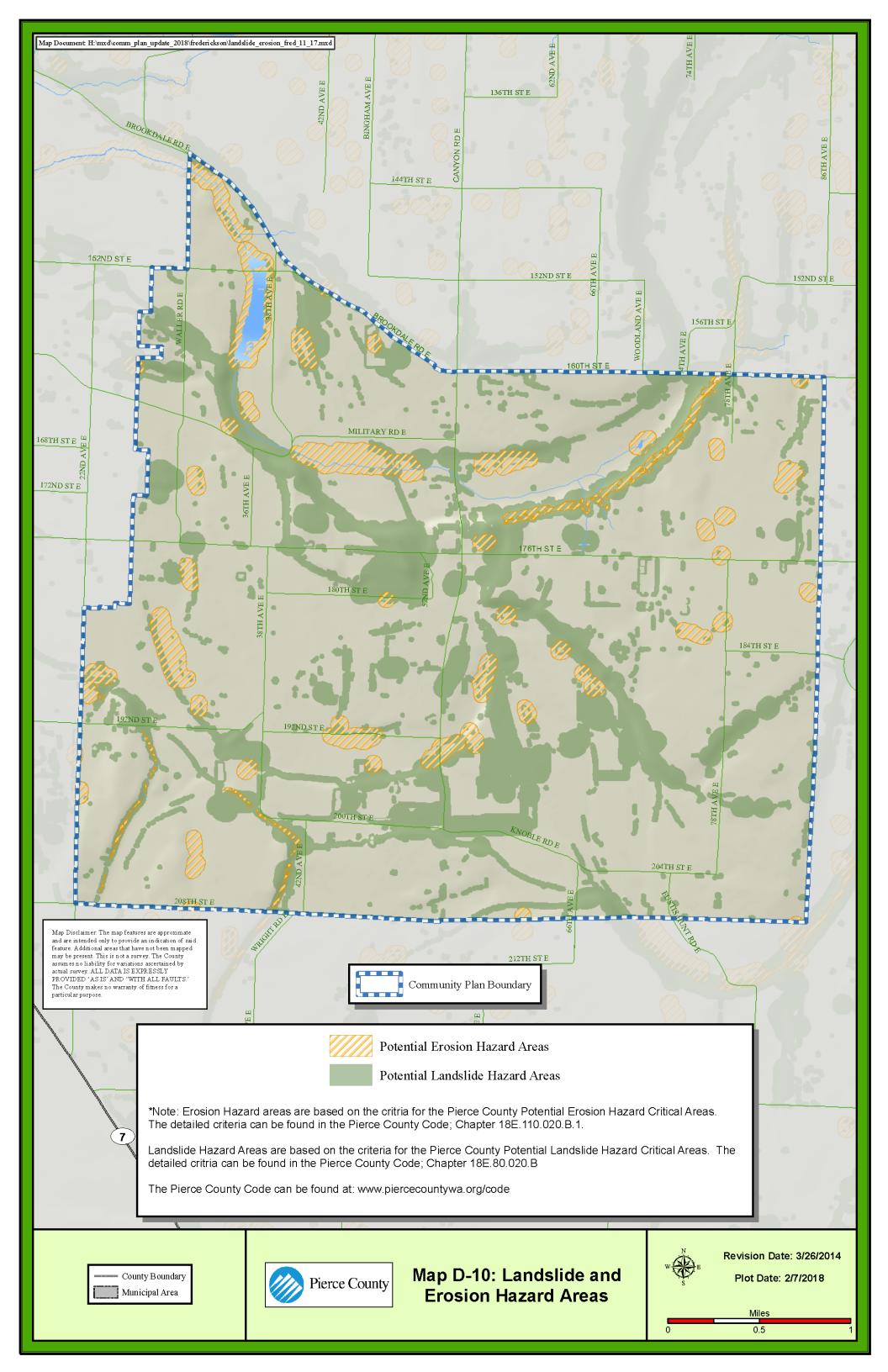
- **GOAL FR ENV-6** Foster the acquisition and conservation of open space within the plan area through the use of a variety of strategies.
- **GOAL FR ENV-7** Protect and maintain publicly-owned and/or purchased open space sites in perpetuity.
 - FR ENV-7.1 Place conservation easements or covenants on existing and acquired publiclyowned open space sites that restrict future uses to passive open space recreation activities.
 - **FR ENV-7.1.1** Conservation easements should be worded to maintain open space use and function of a parcel in perpetuity.
 - FR ENV-7.2 The sale of publicly-owned open space areas to private ownership within the Frederickson Community Plan area is discouraged.
 - FR ENV-7.2.1 In the event that such sales to private ownership occur, any proceeds from the sales shall be used to purchase an equivalent or greater amount of land for passive open space recreation use and/or land which provides an equivalent or greater ecological function and value within the Frederickson Community Plan area.
- **GOAL FR ENV-8** Promote privately owned greenbelts and passive recreational areas as a supplement to the public open space system within the community.
 - **FR ENV-8.1** Establish standards for the private dedication of greenbelts and passive recreational areas within new development.
 - **FR ENV-8.2** The dedication of greenbelts and passive recreational areas should be proportional to the scale and impact of a development proposal.
 - FR ENV-8.3 Dedication requirements should be determined based upon a review of the Pierce County Parks, Recreation, and Open Space Plan and other available documents including published state and national guidelines and standards.
 - **FR ENV-8.4** Utilize greenbelts as buffers between uses and visual relief from the built environment.
 - **FR ENV-8.5** Utilize greenbelts and passive recreational areas for pathways and integrate this system into the active transportation network.

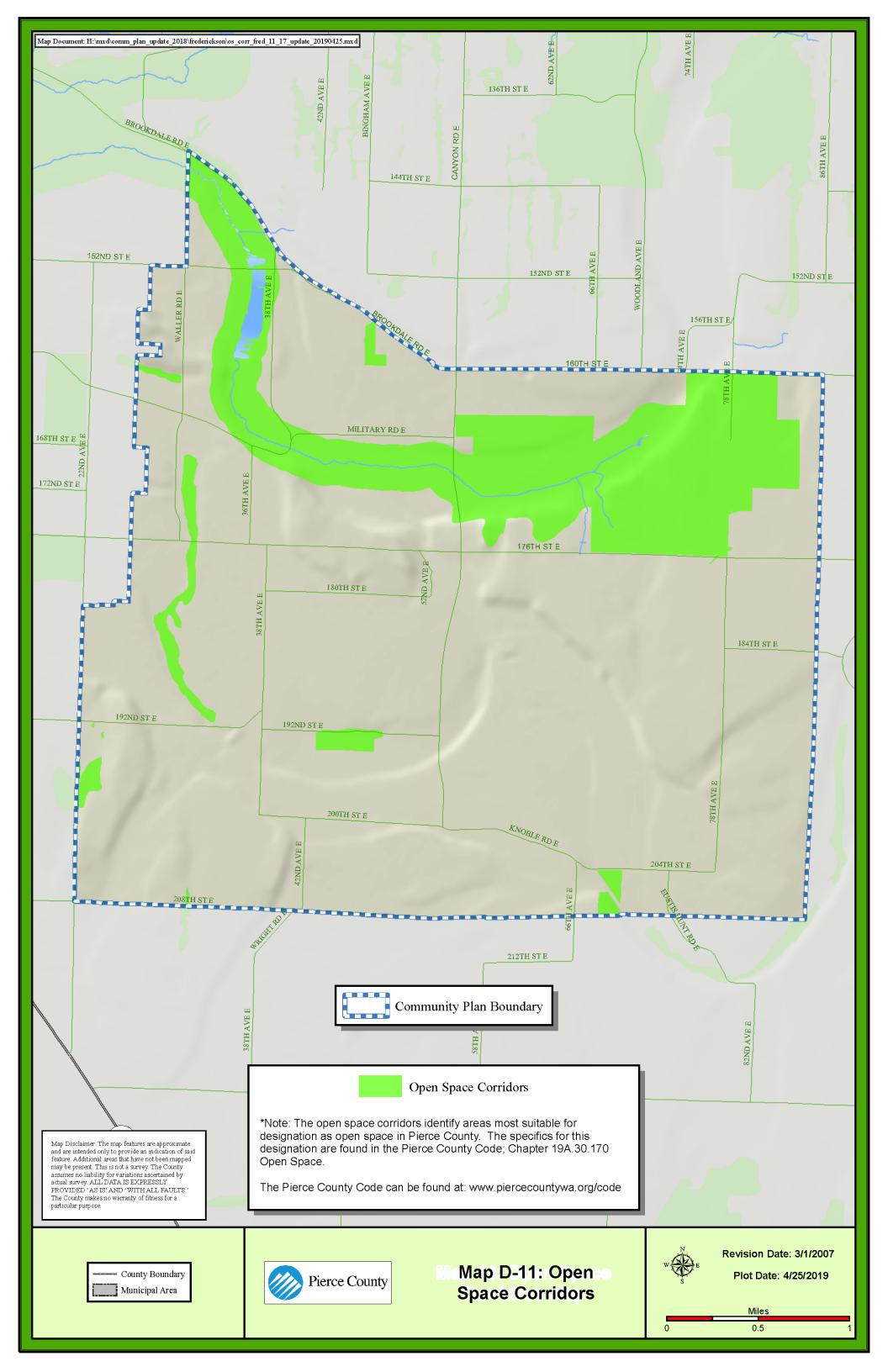
FR ENV-8.6 Greenbelt and passive recreational areas should integrate or bridge critical areas, such as wetlands and fish and wildlife habitat areas, or designated open space areas when possible.

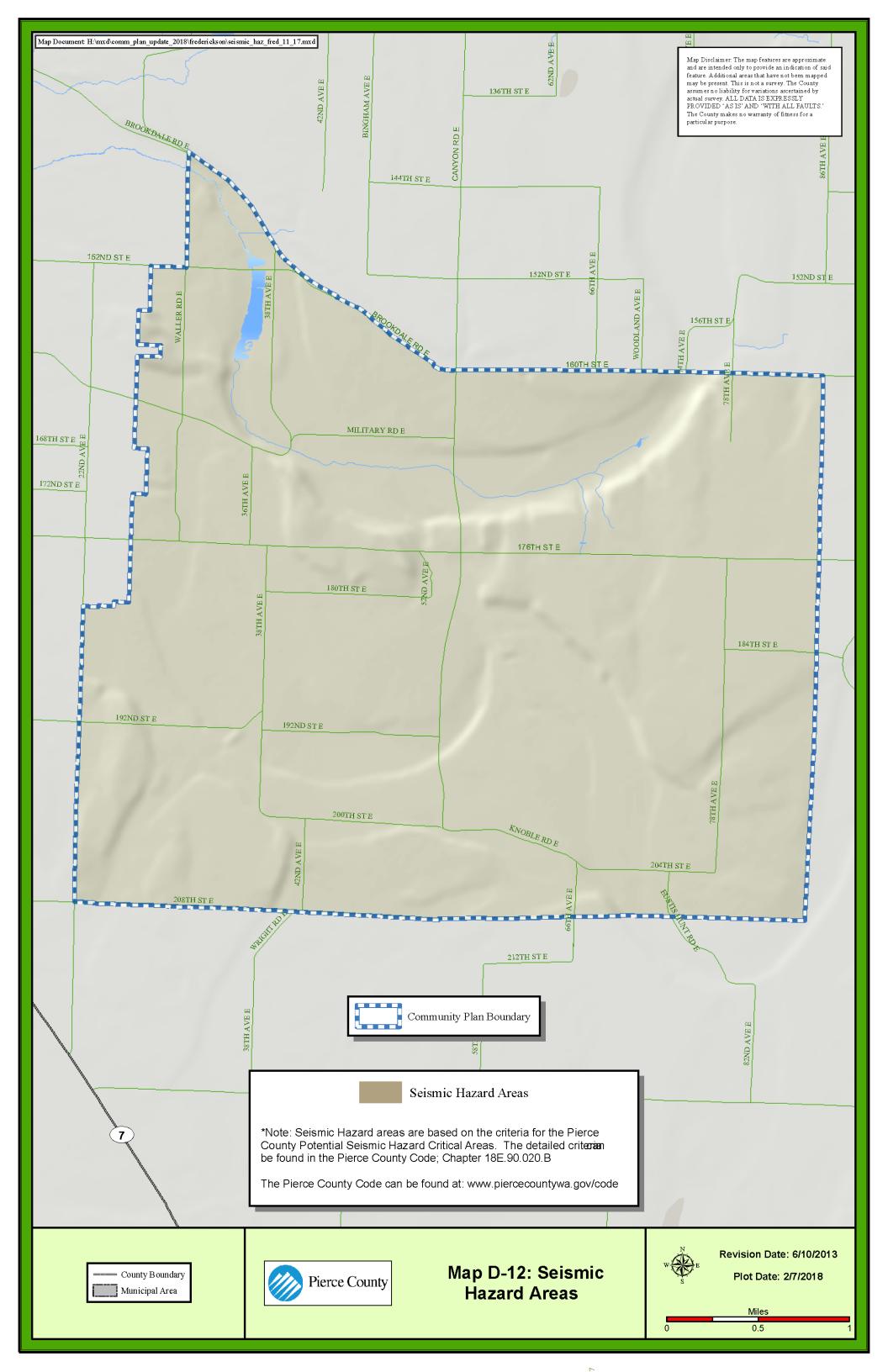


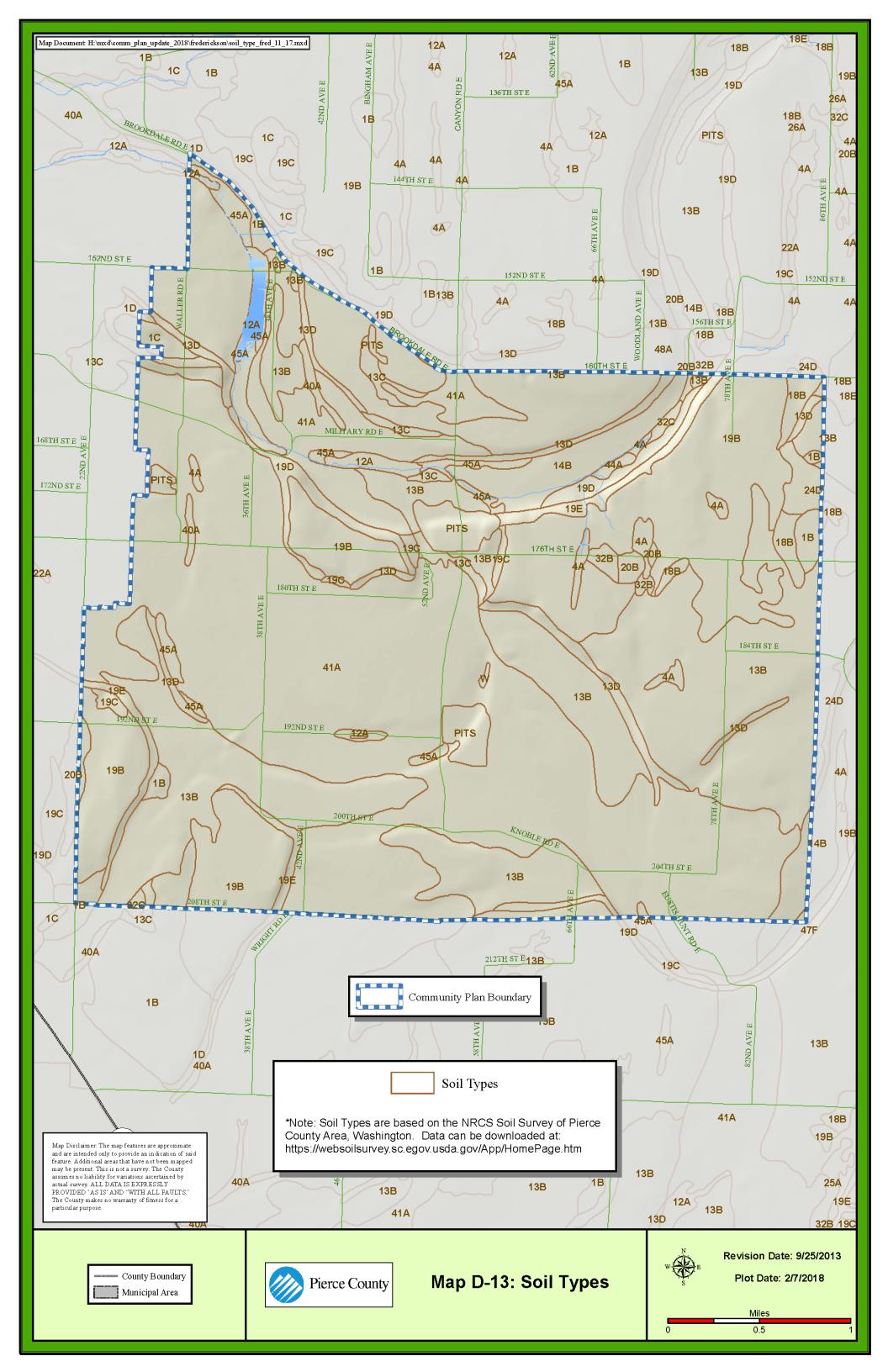


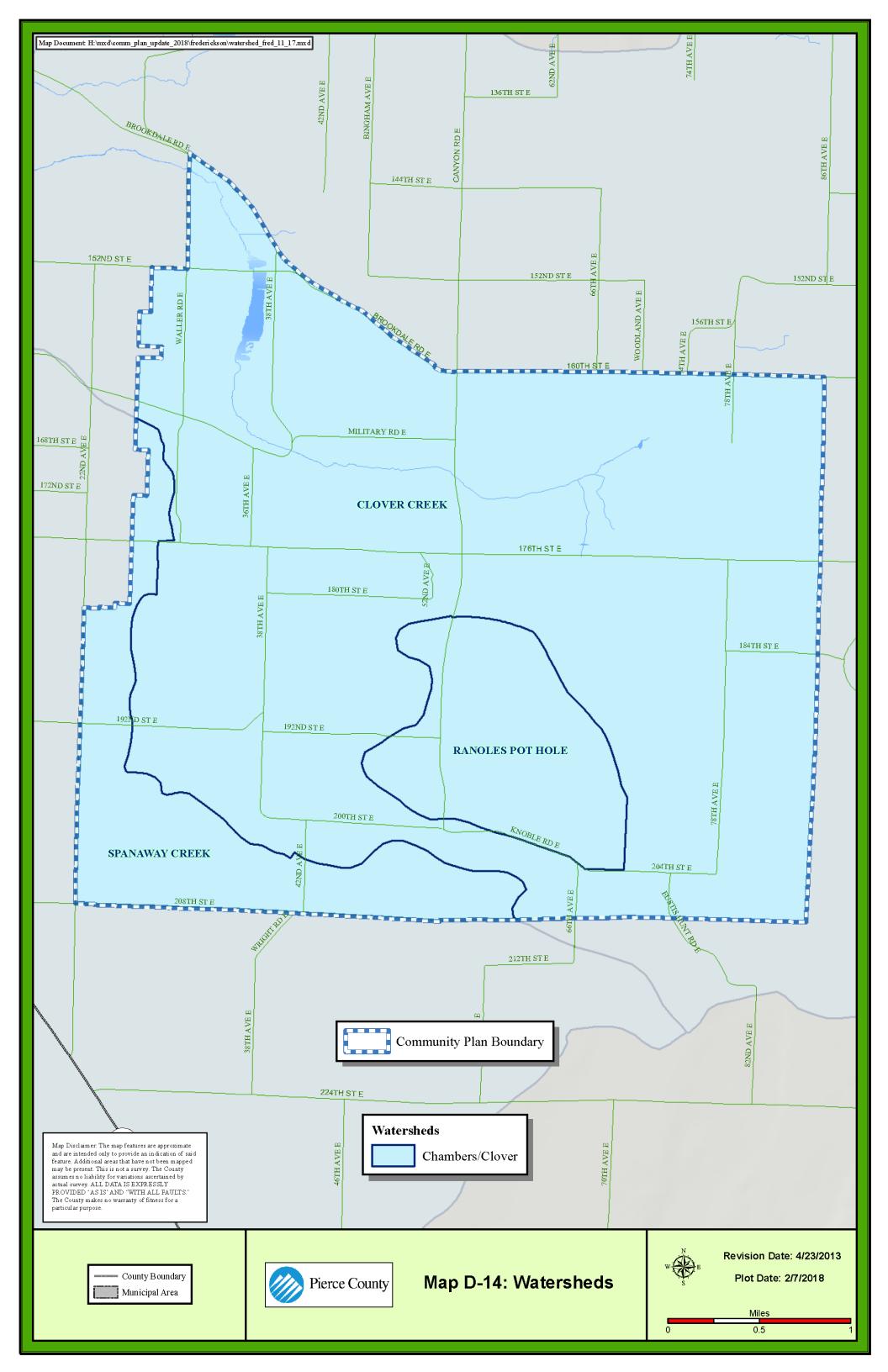


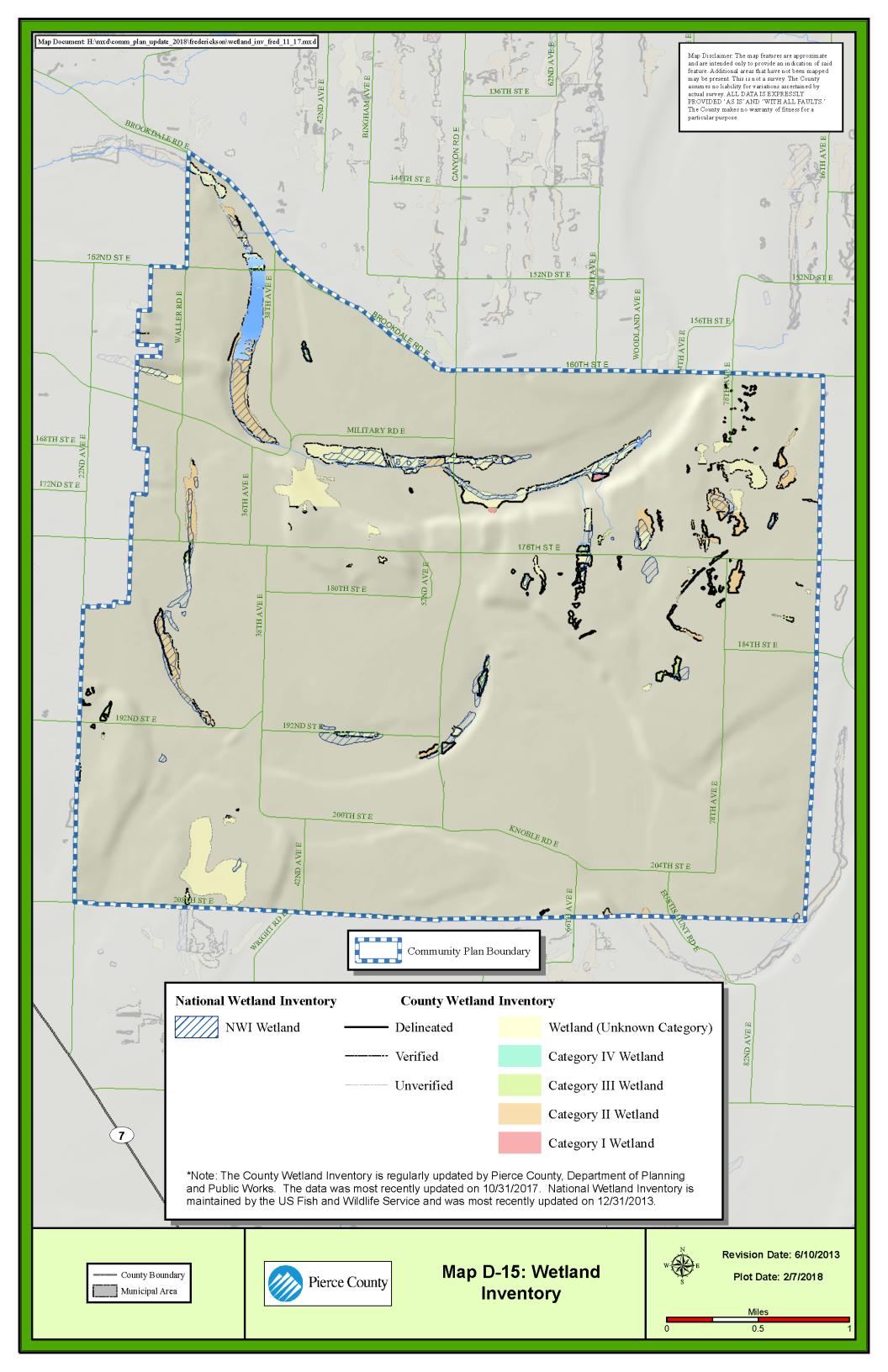












Chapter 6: Facilities and Services Element

Introduction

The Facilities and Services element of the Frederickson Community Plan provides policy direction to decision makers in Pierce County regarding the development regulations and financial investments associated with parks and trails, stormwater facilities, sewer utilities, and public schools.

One of the principal goals of the Growth Management Act (GMA) is for cities to provide compact urban growth areas (UGAs) that accommodate the majority of growth and development in a community so that



the necessary urban facilities and services are provided and delivered efficiently and cost effectively. Urban level facilities and services are only permitted within UGAs.

Certain public facilities and services must be provided at a specific level of service (LOS), concurrently with development. This requirement is intended to ensure that development will not occur without the necessary infrastructure. Developers and property owners are typically required to construct the necessary infrastructure or provide a fee to compensate for their fair share of facilities and services (as associated with a proposed building or development permit) that are necessary to maintain an established LOS (as defined by Pierce County). This LOS standard for public facilities is identified in the Capital Facilities Element of the Comprehensive Plan.

Due to the high rate of growth in the Frederickson area, residents have experienced deficiencies in public facilities, services, and infrastructure. Ensuring that adequate schools, parks, roads, sewer, and water systems are present in the community is a major goal of this plan. While transportation infrastructure is part of facilities and services, the information and policies regarding transportation are found in the Transportation Element.

PARKS AND RECREATION

The Pierce County Comprehensive Plan contains general policies that serve as a guide for future development of park and recreation facilities in the County. These policies cover a range of issues including the responsibility for providing parks, technical assistance, and location criteria for new regional parks. The Parks and Recreation Element of the Comprehensive Plan states that the County's role in providing local parks is to land-



bank sites identified in community plans when capital funding is available and a partnership is formed with a local jurisdiction for eventual transfer of the property. The location criteria for park and recreation areas state that new parks must be located on public roads. If a park is located in an urban area then urban services need to be available. Open space recreation parks should be located on land offering significant environmental features.

Pierce County Parks, Recreation, and Open Space Plan defines the different types of parks as follows:

Local Parks are less than 40 acres in size

County Parks are 40 to 200 acres in size

Regional Parks are more than 200 acres in size

The Frederickson community includes two Pierce County parks within the plan area, Cross Park and Naches Trail Preserve, which are under development and expected to open in 2020. Other public recreation facilities located in the plan area are associated with five public schools. Table D-8, Recreation Land Inventory and Facility Inventory, describes the park land and recreation facilities that serve the Frederickson community. The Tacoma Sportsman's Club (80 acres) is a private recreation facility located within the plan area.

Table D-8: Recreational Park Land Inventory

Park Name*	Location	Acres	Classification
Cross Park	Frederickson	64	Community Center, playground, nature trails
Frontier Park	Graham	71	Playground, playfields, paved pathways, race track, equestrian facilities
Heritage Recreation Center	South Hill	47	Baseball, softball, soccer fields
Meridian Habitat Park	South Hill	36	Community center, playground, trails
Naches Trail Preserve	Frederickson	50	Nature trails
Spanaway Regional Park	Spanaway	327	Rink, tennis courts, skate park, ballfields, golf course, fishing pier, boat launch, trails, 3,800 linear feet of shoreline access

^{*} All parks listed in this table are within two and a half miles of the Frederickson Community Plan boundaries and are considered to be providing services to the Frederickson Community.

The Pierce County Park, Recreation, and Open Space Plan (referred to as the PROS Plan) provides direction and guidance for management and development of park facilities and programs. Although the Parks and Recreation Department is a regional provider, the Department assists communities with identifying their individual park and recreation needs.

Community plan policies focus on the acquisition and development of property for public parks in the next 15 years. The northern portion of Cross Park is anticipated to be completed in the next 6 years and will provide a free or low-cost community center, playground, picnic areas, and walking trails. Strategies identify possible funding mechanisms and public agency partnerships. Additional policies address deficiencies in park land and facilities and identify methods of creating, funding, and operating local-scale parks. Properties and methods identified attempt to remedy the deficiency in level of service within the plan area and attempt to achieve a level of service that meets the needs and desires of the Frederickson community. Any acquisition of new property must adhere to the adopted Comprehensive Plan policies.

PARK ACQUISITION RECOMMENDATIONS

The potential acquisition sites that are identified are not listed in order of priority.

Table D-9: Recommended Park Acquisition Sites

Name	Location	Size	Current Owner	Proposed Use
Forest adjacent to Naches Trail Elementary	15305 Waller Road East	12	Bethel School District	Local Park
Pierce County Waller Road Property	Waller Road East between 166th Street East and 172nd Street East	36	Pierce County Planning & Public Works	Local Park
Former Brewer's Sports Complex	6715 176th Street East	25	Brewer's Sports Complex LLC	Local Park
Properties associated with open space adjacent to Clover Creek	Various	Various	Various	Resource Conservancy

PUBLIC SCHOOLS

The plan area is served by Bethel School District No. 403. Naches Trail Elementary, Pioneer Valley Elementary, Clover Creek Elementary, Frederickson Elementary, Liberty Middle School, and the Pierce County Skills Center are the Bethel School District facilities located within the plan area boundary. Several district facilities, including the Central Kitchen and Transportation Center and the Bethel Support Annex, are also located within the plan area. Projected enrollment in the District is expected to reach approximately 23,000 by the year 2035. The District is working to pass bonds to construct new educational facilities.

Bethel School District No. 403

The District includes:

- 16 elementary schools
- 1 K-8 school of choice
- 6 middle schools
- 3 high schools
- 1 alternative high school
- Elementary online academy
- Pierce County Skills Center

The District's overall capacity:

- 16,815 in permanent classrooms
- 3,200 in modular classrooms

The Bethel School District is the responsible entity to address school district issues. Comprehensive Plan policies encourage increased coordination between the County and the District to develop strategies that address new schools and the capacity and location of schools in rural areas. Additional coordination is also needed between the two entities to ensure students have safe walking routes from their residential neighborhoods to schools.

SANITARY SEWER

The goal of the Pierce County Sewer Division of Planning and Public Works is to connect the entire 117 square-mile sewer service basin to the Chambers Creek Regional Wastewater Treatment Plant, eliminating the need for new, and retiring existing, on-site septic installations.

The Frederickson service area is concentrated within one sewer service basin and has the highest concentration of large-scale commercial/industrial uses in the County. The service area is zoned urban with limited rural designations, constituting approximately 6 percent of the County's sewer service area. Working with the development community, the County has provided sewer availability for the commercial/industrial uses, with residential uses remaining more reliant upon on-site systems. As the collection system grows, opportunities for residential connection to the system will expand throughout the basin.

Many individual on-site systems still exist within these basins and will continue to be in service until either the sewer collection system is extended to provide connection or the Tacoma-Pierce County Health Department (TPCHD) requires connection due to health and/or environmental issues. Extension of the collection system by the County and private development will continue to close the service gap between commercial/industrial and residential uses.

Concern about surface and groundwater pollution in the Chambers Creek - Clover Creek Drainage Basin was first reported by the Washington State Department of Health in 1939. Pierce County's urban areas are situated directly above a sole source aquifer that exists at multiple levels. The report attributed shallow aquifer pollution to increased population densities and the continued use of poorly maintained on-site sewer systems. The report further identified that as the shallow upper aquifer became more polluted over time, new wells accessing the deeper aquifer levels would need to be constructed to provide safe potable water supplies.

In 1967, the Washington State Legislature adopted the County Services Act, RCW 36.94. This act authorized counties in Washington State to provide sanitary sewer services and facilities. Prior to this action, counties could not provide sanitary sewer service.

In 1969, Pierce County adopted the Chambers Creek - Clover Creek Basin Sewerage General Plan calling for staged construction of conventional sewer collection lines and a single centralized treatment plant with outfall to Puget Sound. In 1973 this service area, Utility Local Improvement District 73-1, became the central portion of the sewer service basin that included Lakewood, Parkland, and Spanaway. Expansion of the Chambers Creek facility and additional extensions to the collection system have been added over the past 30 years.

The Chambers Creek Regional Wastewater Treatment Plant and associated Collection System is a sanitary system, meaning that the system collects and treats only wastewater and does not collect or treat stormwater. Collected wastewater is treated through anoxic secondary treatment utilizing primary sedimentation and anaerobic digestion and operates under a National Pollution Discharge Elimination System (NPDES) permit issued by the Washington State Department of Ecology. The Plant is currently rated to treat 45.25 MGD (million gallons per day). The average daily flow is currently 21 MGD collected from the 117 square-mile service basin.

Current state law prohibits the installation of sewers in rural areas unless installed/vested prior to the adoption of the State Growth Management Act in 1994, or as directed by the Tacoma-Pierce County Health Department (TPCHD). State law does not prohibit the installation of sewer lines through a rural area.

When an on-site septic system is reported for service or repair to the TPCHD, permits may be issued to allow the repair or replacement of all or part of a system. If the TPCHD finds that a septic system is unrepairable, soils will not support repairs, or the parcel is within 300 feet of a sewer collection line, connection to the sewer collection system is required.

While on-site septic systems remain a viable alternative to connection, the installation of any new system is interim, that is, the septic system is to be abandoned and connected to sewer once collection lines become available as defined by the appropriate agencies. An on-site septic system shall be considered interim as defined per Pierce County Code (PCC) 18.25.030 and shall be designed to comply with PCC 18J.15.160 and TPCHD's Environmental Health Code, Chapter 2 On-site Sewage.

STORMWATER MANAGEMENT

As natural vegetative cover is replaced with homes, businesses, parking lots, and roads, surface water runoff (stormwater) tends to increase both in volume and rate at which the water drains off the land. If not properly addressed, this post-development increase in stormwater volume and rate can result in flooding, water quality and habitat degradation, and soil erosion.

The discharge of stormwater to streams, groundwater, wetlands, and other natural waters (receiving water) is regulated by Washington



State through the County's Phase I Municipal Stormwater Permit (Stormwater Permit). The permit system is required by the federal Clean Water Act and must be designed to protect the beneficial uses of water.

The Stormwater Permit is revised every five years to incorporate the ongoing learnings about stormwater management. The most recent permit became effective August 1, 2019. This

permit requires the County to regulate land development and consider the impacts of land use decisions on streams and other waterbody health. The considerations must address the protection and restoration of receiving water quality during long-range planning.

The preferred method of managing stormwater is by using Low Impact Development (LID) principles. LID retains the maximum amount of stormwater through site designs that maximize the retention of native vegetation and existing hydrology, minimize impervious surfaces, and use green stormwater infrastructure to maximize the amount of stormwater infiltrated on-site.

The porous nature of the underlying Spanaway soils within Frederickson does not generate significant surface water runoff, and therefore does not facilitate the natural formation of drainage channels. In these areas, the groundwater table can fluctuate more than 20 feet over the course of one year. While runoff from these sites will typically alter the water table, it is very challenging to treat for water quality during an extended high water period. Only as development has become more intense has the need for collecting and conveying the excess runoff to a storm drainage pond or to small-scale drywell within the roadway been necessary.

There are some pocket locations within the plan area comprised of till soil types that do not allow runoff to infiltrate into the ground and precipitation in these areas is quickly converted to runoff. These areas are in the southwest corner of the plan area, south of 192nd Street East and west of 42nd Avenue East and also south of Clover Creek between Canyon Road East and the 8400 block and north of approximately 182nd Street East. These areas have formed the natural drainage courses characterized with culverts at road crossings and steep ravines where the drainage courses traverse steep slopes.

Portions of the Frederickson community are within a closed depression drainage basin where stormwater flows to a series of potholes. No natural surface water outlet is present in these potholes and the only means of conveyance is through evaporation and infiltration. This type of topography is susceptible to increased levels of flooding due to the increased rate of runoff created from development within the closed depression becoming greater than the evaporation and infiltration rate. As a preventative measure, current stormwater regulations require development within the closed-depression areas to maintain stormwater flow peaks and volumes at the same level prior to the development and manage any excess volumes onsite.

Pierce County has developed some regional stormwater facilities within the Frederickson plan area. These facilities are typically situated at a pothole location within the closed depression basin and are designed to maximize the infiltration rate of the pothole while providing protection from development occurring within the pothole.

The public regional ponds in the plan area are in addition to the smaller publicly-owned retention/detention ponds and a large amount of drywells associated with individual developments. Private parties, such as homeowners' associations, are responsible for maintaining those facilities. Annual checks are completed by Pierce County inspectors to ensure that the ponds are maintained per the maintenance agreements required at the time of plat approval. Pierce County works with homeowners' associations to assist and assure compliance with the maintenance agreements.

BASIN PLANNING

To assist in future decision making associated with stormwater issues, a series of basin plans were prepared by Pierce County to address all aspects of surface water management. The Clover Creek Basin Plan encompasses the entire Frederickson Community Plan area. Implementation of the plan's recommendations will help ensure that actions taken to improve stormwater drainage in the County are in compliance with federal and state laws and regulations, particularly the federal Clean Water Act and Endangered Species Act.



POTABLE WATER SUPPLY

Frederickson residents and businesses receive their potable water (or drinking water) from one of several types of public water systems operating under different ownership arrangements (e.g., municipal, mutual, or investor-owned) or from "individual wells." The majority of residents receive their drinking water from a Group A water system; a public water system serving more than 15 connections. While approximately 10 Group A water systems operate in the Frederickson community, the majority of the community plan area is served by one of the following: Spanaway Mutual, the City of Tacoma, Firgrove Mutual, or the Southwood/Sound water system. In addition to Group A water systems, a percentage of Frederickson residents obtain their drinking water from a Group B system. A lesser amount of Frederickson residents obtain their drinking water from a private source or individual well.

The Central Puget Sound area faces significant challenges in meeting the water needs for people and fish habitat with available resources. At current levels of water use, additional water supplies will be needed to meet both near-term (through 2020) and long-term (through 2050 and beyond) water demand in the region. While many of the region's water systems would prefer the ability to drill for new sources of groundwater

Water Systems

While approximately 12 Group A water systems operate in the Frederickson community, the majority of the community plan area is served by one of the following:

- Spanaway Mutual,
- City of Tacoma,
- Firgrove Mutual, or
- Southwood/Sound

Water System Types

- Group A: a public water system serving more than 15 connections, regulated by The Washington State Department of Health (DOH)
- 2. Group B: a public water system serving between 2 and 15 connections, regulated by Tacoma-Pierce County Health Department (TPCHD) and DOH
- 3. Private source or individual well, regulated by TPCHD

within their service areas, the likelihood of doing so is questionable. Instead, water systems are beginning to recognize the need to seek a regional water source to supplement existing sources of supply.

At the local level, several Pierce County water purveyors operating within the urban growth boundary are in need of new sources of supply to serve anticipated new growth. Pierce County and water purveyors should coordinate their activities to ensure that an adequate and reliable domestic water supply is available to support projected population growth. The availability of an adequate potable water supply must be verified prior to the approval of new land divisions. If water purveyors are incurring problems of supplying water for new land divisions, they should explore connections with other water systems that have adequate water supplies.

PARKS AND RECREATION POLICIES

GOALS

Improve park and recreational opportunities by developing new regional park facilities and improving existing facilities; providing support to community efforts to establish a system of publicly owned and maintained local parks; and by pursuing cooperative agreements with the Bethel School District to improve public recreational opportunities at public school sites. Provide and maintain a level of service for regional parks in the community that meets or exceeds the countywide standard.

PARKS AND RECREATION

- **GOAL FR PR-1** Achieve and sustain an acceptable level of service for park facilities.
 - FR PR-1.1 New parks within the Frederickson Community Plan area should be designed and located to serve the needs of community residents, as well as provide countywide benefits. New parks should meet the following criteria.
 - FR PR-1.1.1 Park sites should be located in a manner to take advantage of the physical amenities in the plan area. Priorities include Clover Creek, wetlands, forested areas, steep slopes, and historical and scenic areas.
 - **FR PR-1.1.2** Parks should support a wide range of recreation interests and typically attract residents from one or more nearby communities.
 - **FR PR-1.1.3** Parks typically provide facilities that include playgrounds, trails, sport field complexes, space for community events, and community centers.
 - **FR PR-1.2** Open space corridors adjacent to Clover Creek are high priority sites for park land acquisition within the Frederickson Community Plan area.
 - FR PR-1.3 The County Council District 3 representative on the Pierce County Parks Citizens' Advisory Board should be provided with all necessary information to help inform civic and community groups and local governmental agencies about the plans and operations of the County regarding park location and development.
 - FR PR-1.4 Development of facilities at a park should not occur prior to completion of the necessary site plan.
 - **FR PR-1.5** Where appropriate, develop park facilities that generate funds.
 - **FR PR-1.5.1** Incorporate revenue generation into the design of new parks.
 - FR PR-1.5.2 Consider charging user fees at sites that provide recreational opportunities at an appropriate rate that will help support the maintenance and operation of County facilities.

- GOAL FR PR-2 Pierce County should require all new residential subdivisions and multifamily residential developments to dedicate land or pay a fee-in-lieu of land dedication for the development of local parks.
- **GOAL FR PR-3** New parks within the plan area should be designed and located to serve the needs of all segments of the community.
 - **FR PR-3.1** Priorities include Clover Creek, wetlands, forested areas, steep slopes, historical areas, and scenic areas.
 - FR PR-3.2 Access to parks should be from an arterial street if traffic volumes are anticipated to be high, otherwise access should be via a local residential street. Parking shall be dependent upon the facilities provided.
 - **FR PR-3.3** Parks should include a playground, a sports field, tennis or basketball courts, internal pathway, restroom, and supporting amenities.
 - FR PR-3.4 Parks should be separated from one another in a relatively even manner throughout the plan area.
 - **FR PR-3.5** Typically, a 1- to 2-mile separation is desirable.
 - **FR PR-3.6** Parks should be reasonably central to the neighborhood they are intended to serve.
 - **FR PR-3.7** Walking and bicycle access routes should avoid physical barriers such as major arterial roads or stream crossings whenever possible.
 - **FR PR-3.8** Parks should be developed adjacent to school sites whenever possible in order to promote facility sharing.
 - FR PR-3.9 Facilities on the park site should supplement uses that the school does not provide such as trails, open space, picnic areas, playground equipment, and multi-purpose paved courts.
 - FR PR-3.10 The following are high-priority sites for park land acquisitions within the Frederickson Community Plan area and are listed in Table D-9. The sites are not listed in any order of preference or importance.
 - **FR PR-3.10.1** 13-acre property owned by Bethel School District adjacent to Naches Trail Elementary on Waller Road East;
 - FR PR-3.10.2 30 acres, formerly Brewer's Sports Complex, on the north side of 176th Street East at approximately the 6700 block; and
 - **FR PR-3.10.3** 21.5 acres owned by Pierce County located at the intersection of 173rd Street East and Waller Road East.

UTILITIES POLICIES

GOALS

- The existing conditions of public facilities, services, and infrastructure within the
 community will be evaluated. Where deficiencies exist, such that the adopted level of
 service standards are not being achieved, measures will be taken to correct the
 deficiency or to prevent the deficiency from becoming more severe;
- The need for public facilities, services, and infrastructure will be anticipated and planned for in advance, where possible. Growth and development within the community will be managed to the extent feasible to ensure that these facilities, services, and infrastructure can be provided as efficiently as possible;
- The cost of providing additional public facilities, services, and infrastructure needed to serve development will be paid by the development; and,
- Annual monitoring of the condition of public facilities, services, and infrastructure in the community will be performed and corrective action will be taken as necessary.

GENERAL

GOAL FR U-1

The community intends to balance future residential and industrial growth with adequate infrastructure needed to maintain a desired quality of life.

SANITARY SEWER

Utilizing the six-year Capital Facilities Plan and the twenty-year Sewer Improvement Program, in conjunction with the Sewer System Model, the Sewer Division identifies programs, projects, upgrades, and replacements to all systems to meet evolving environmental regulations and the requirements of the Division's NPDES permit.

Best construction methods and practices are employed to reduce impacts associated with construction of sewer infrastructure. All efforts are made to locate sanitary sewer facilities within existing road rights-of-way whenever possible, and construction activities are coordinated to avoid critical flora, fauna, and aquatic areas and the disruption of transportation systems.

Given the size of the sewer service area, policies relating to sanitary sewer span multiple community plan boundaries. Policies pertaining to the sewer system require consistency and are a component of the Pierce County Comprehensive Plan.

Additional Utility policies and future planning can be found in the following documents:

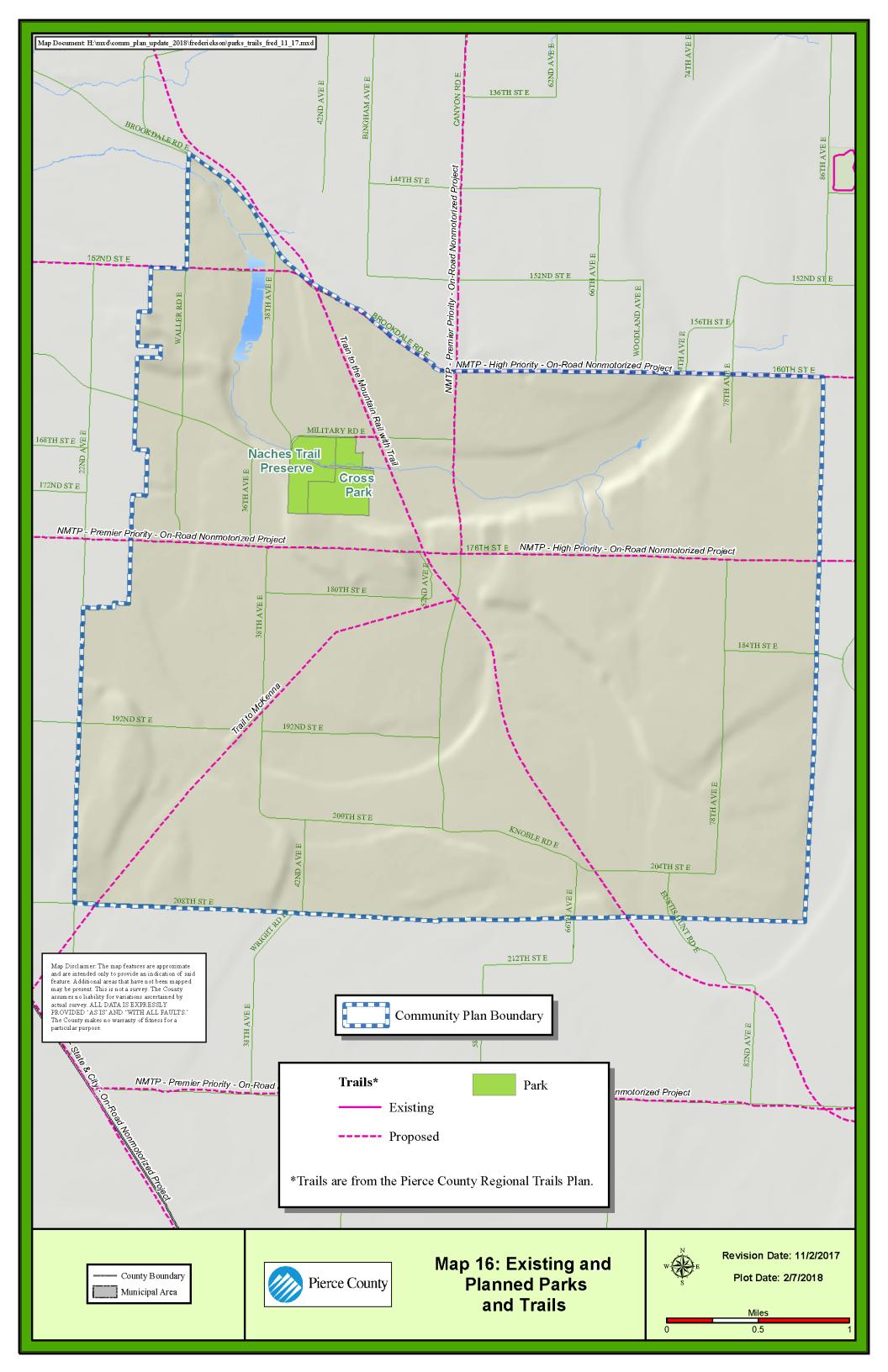
- Unified Sewer Plan
- Sewer Improvement Program

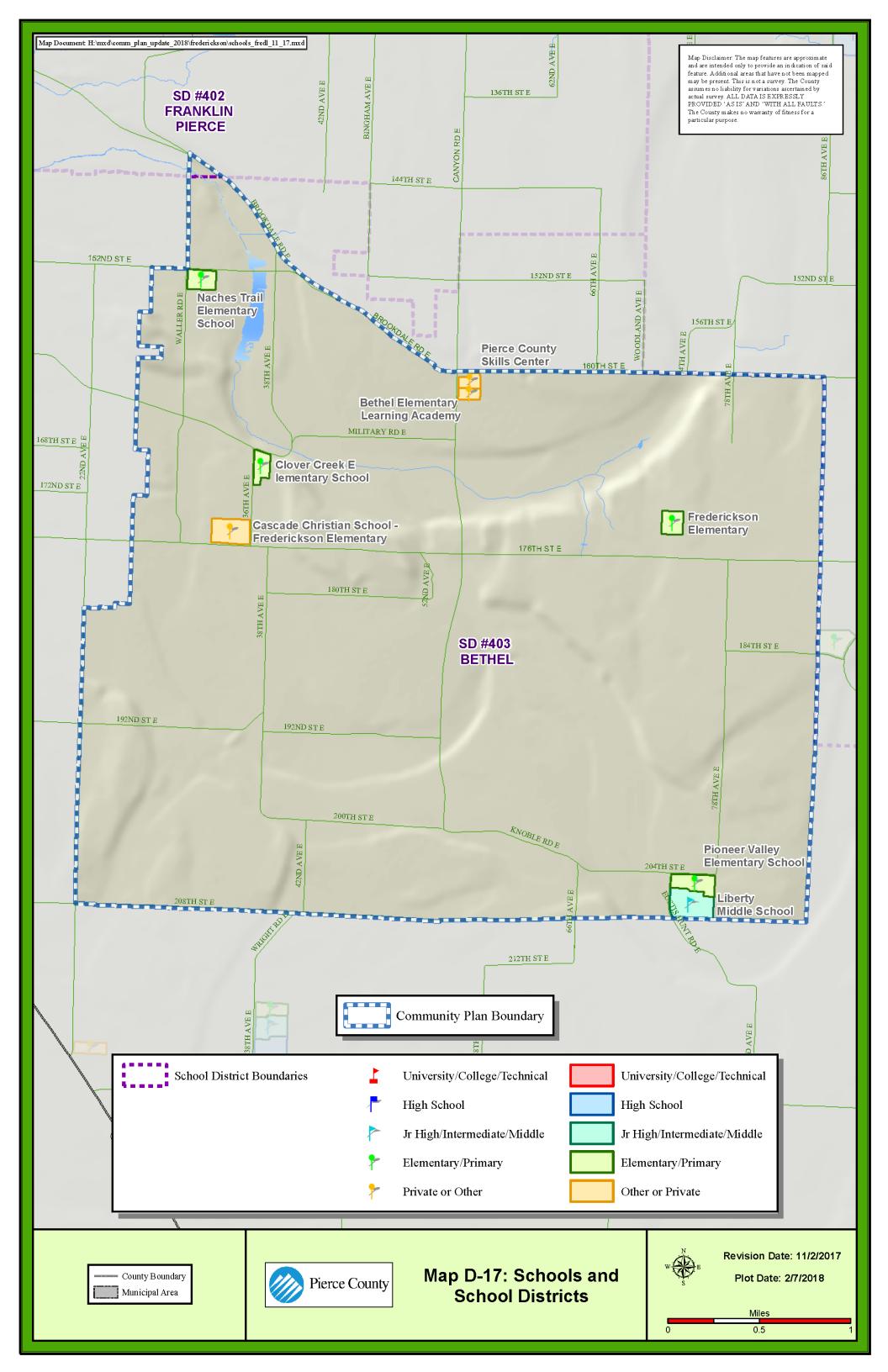
• Capital Facilities Plan

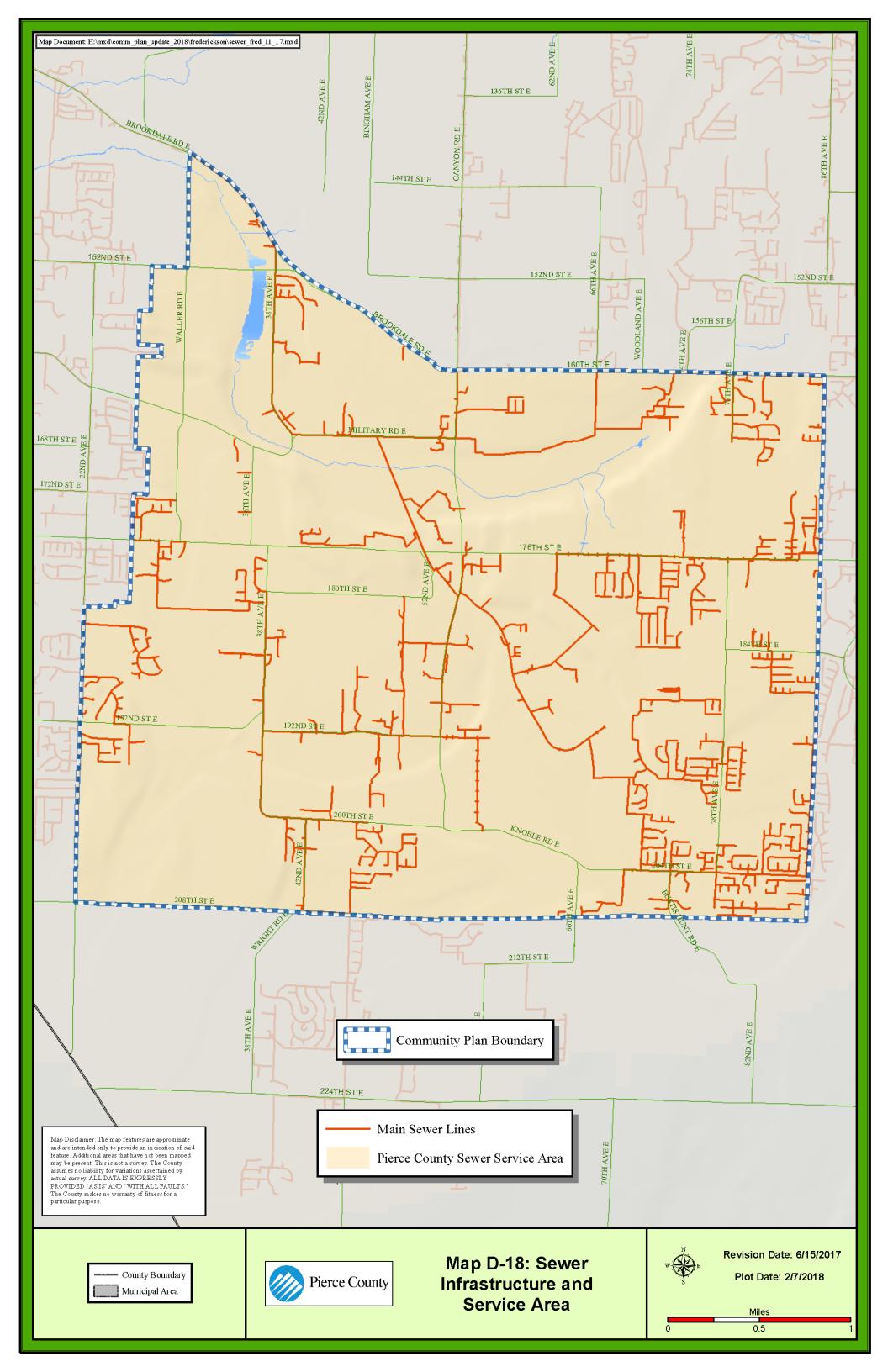
- GOAL FR U-2 Sanitary sewer facilities should be planned for and constructed in accordance with County codes, the Unified Sewer Plan, Sewer Improvement Program, and Capital Facilities Plan.
- GOAL FR U-3 Schedule construction activities to avoid sensitive time periods in the lifecycle of fish and wildlife, such as spawning, nesting, and migration.
- **GOAL FR U-4** Whenever possible, construction will be scheduled to minimize disruption of access to area residences and businesses.

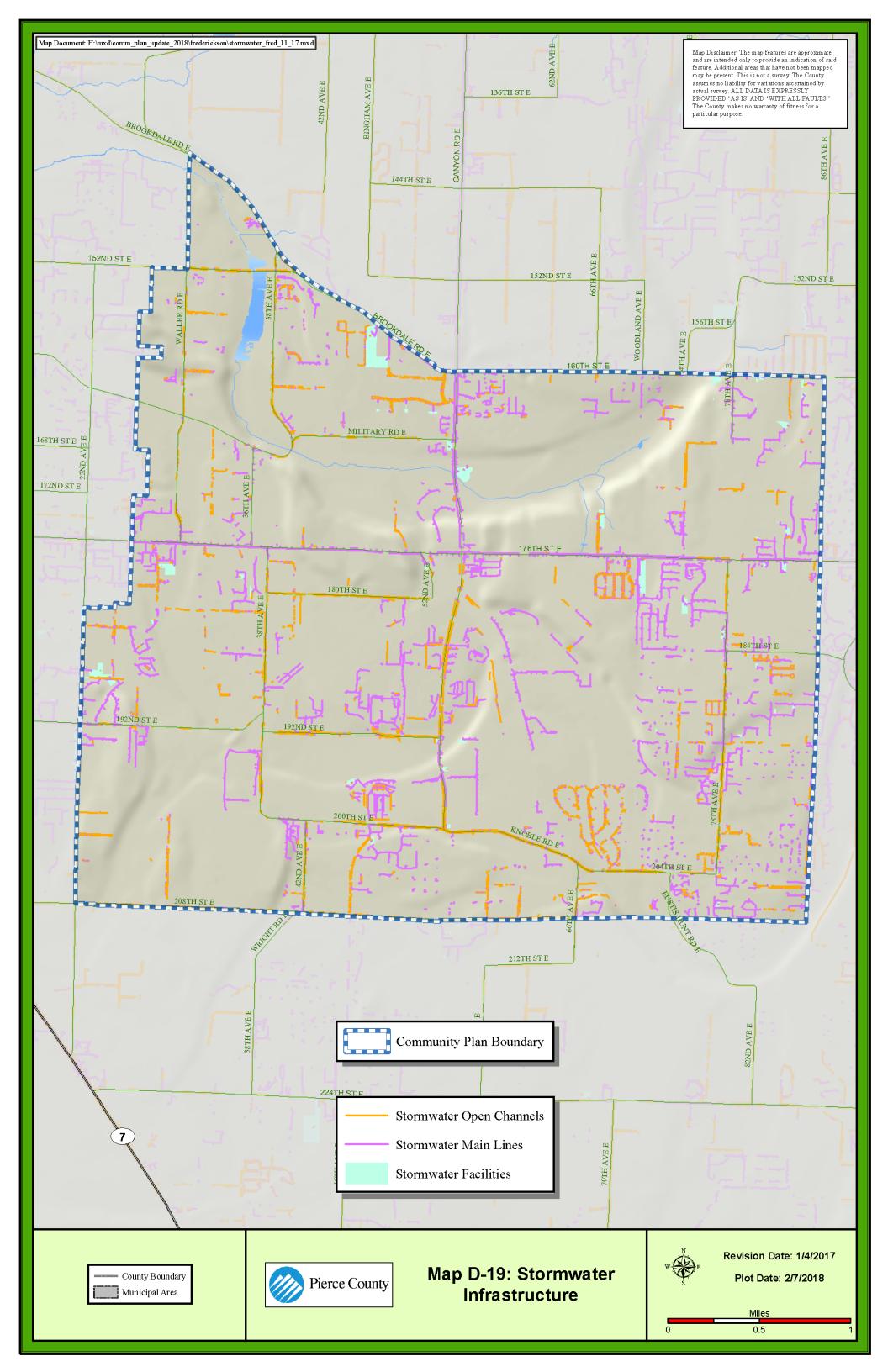
STORMWATER MANAGEMENT

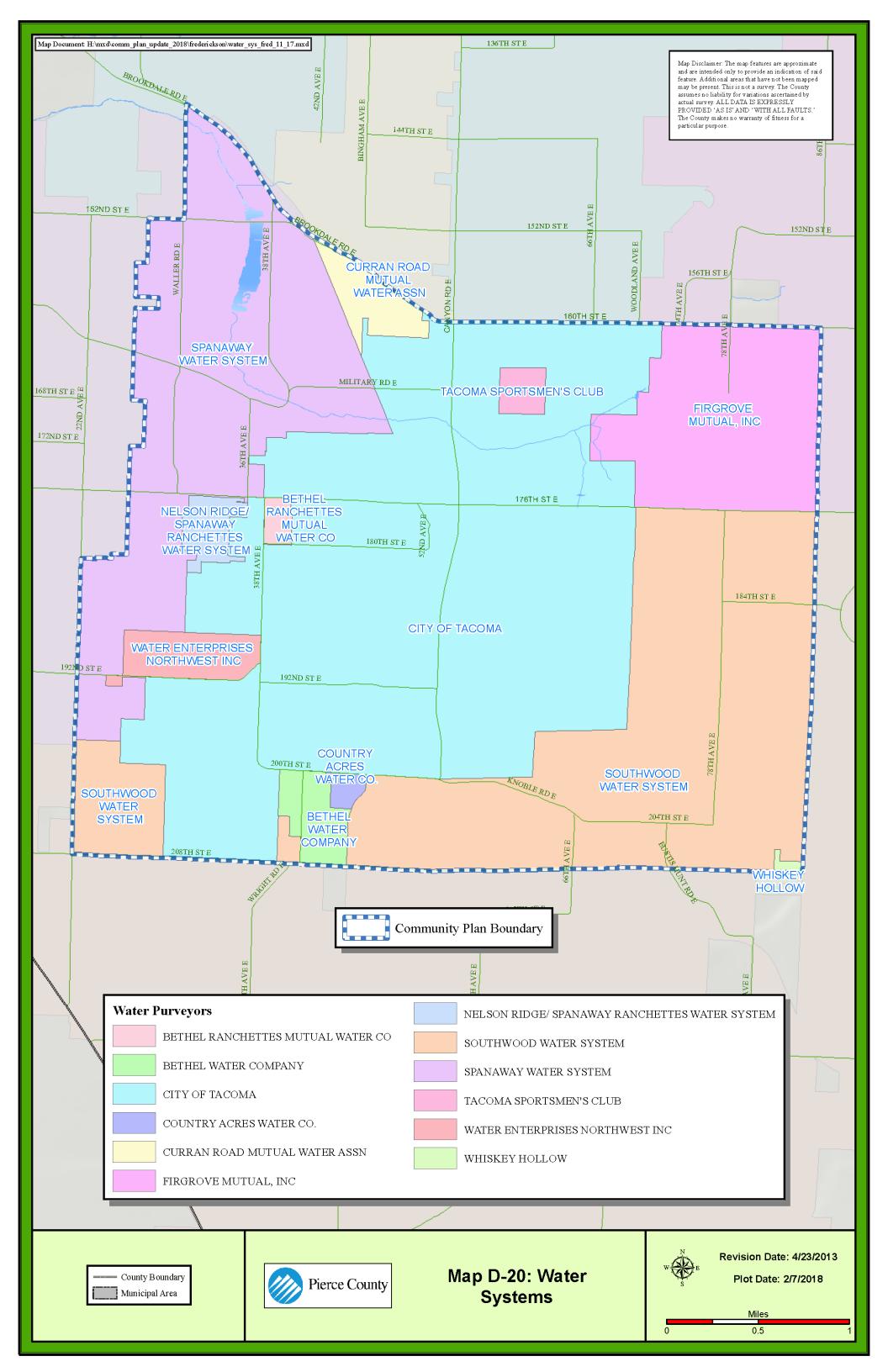
- **GOAL FR U-5** Pierce County should implement the Clover Creek Basin Plan and Clover Creek TMDL Alternative Plan.
 - **FR U-5.1** Protect downstream areas that are affected by developments on higher land that flows down into the area and causes flooding during heavy rains.
 - **FR U-5.2** Coordinate the identification of appropriate areas for potential rezoning with the watershed basin planning processes.











Chapter 7: Transportation Element

Introduction

The goals and policies in this document help describe Frederickson's transportation future. The transportation project list and map guide the identification, financing, design, and construction of transportation facilities in the Frederickson Community Plan area. The community plan's transportation element needs are to be used in conjunction with the Transportation Element of the Pierce County Comprehensive Plan. Many of the projects and policies contained in the Frederickson Transportation component have evolved from the Pierce County Comprehensive Plan and South Canyon Corridor Plan.

Traffic congestion was prevalent on major roads in the area at the time of original community plan adoption. Since that time, the County has completed major widening projects on Canyon Road East and 176th Street East. While these projects provided improvements to traffic flow and amenities, such as sidewalks, bike lanes, and wide shoulders, traffic growth has contributed to increased congestion. A major focus of the transportation improvements in the updated plan is adding additional north-south connections to benefit traffic flow.

Additional components of the transportation system examined during the planning process included safety, maintenance, neighborhood and environmental impacts, access to arterials, and project funding. The transportation projects and policies are intended to slow the growth in traffic congestion, improve transportation flow for residents, business interests, and industrial needs, decrease the number of collisions, increase route options for pedestrians and bicyclists, and provide transit service. The community would like to have the active transportation and transit systems improved in their area to provide transportation options for people who are unable to drive, for fitness and recreation, and to reduce the growth in the number of cars traveling within the Frederickson community. The community recognizes the importance of the active transportation and transit systems in providing mobility for people of all ages, physical abilities, and socioeconomic standing.

HISTORY OF TRANSPORTATION PLANNING IN FREDERICKSON

In 1992, the Pierce County Transportation Plan (PCTP) was adopted by the Pierce County Council. The PCTP was the first county-wide transportation plan establishing policies and prioritizing transportation improvements for the following twenty years and beyond. The PCTP was the result of a four-year work program involving many volunteers representing different geographic areas of Pierce County and various residential, commercial, industrial and recreational groups interested in the transportation system. The PCTP was organized into five main topic areas: Transit, Active Transportation, Roads, Other Motorized Transportation and Implementation Strategies and Actions. The PCTP served as the starting point for developing a list of transportation policies and project recommendations for the Frederickson Community Plan.

In 1994, the Pierce County Comprehensive Plan was adopted to comply with the Washington Growth Management Act. The Comprehensive Plan's Transportation Element was predominantly based upon the recommendations included in the PCTP. The Comprehensive Plan summarized a new system for coordinating the planning, funding, programming, and construction of transportation improvements with future land development. This concept, known as transportation concurrency, is implemented in Pierce County through the Traffic Impact Review Policy (adopted in 1998) and Transportation Improvement Program (adopted annually).

The South Canyon Corridor Plan Committee worked with Pierce County staff in 1995 to develop and adopt the South Canyon Corridor Plan (SCCP). The SCCP describes the Committee's recommendations for transportation improvements in the Canyon Road Corridor from SR-512 to 224th Street East. The plan provides the framework for the design of roadway and transportation improvements, as well as guidance for future development of the South Canyon Corridor. The improvement recommendations that have not been completed are included in the updated Frederickson Community Plan.



In 1997, the County adopted its first Nonmotorized Transportation Plan (NMTP). An extensive public involvement campaign was used to identify and prioritize pedestrian and bicycle projects, and to create nonmotorized policies for the entire county. Since 1997, both the PCTP and the NMTP have been updated and combined into one Transportation Element contained in the Pierce County Comprehensive Plan.

COORDINATION WITH THE PIERCE COUNTY COMPREHENSIVE PLAN-TRANSPORTATION ELEMENT

The transportation policies and project list contained in the Frederickson Community Plan work in coordination with the Transportation Element of the Pierce County Comprehensive Plan. The transportation guidance found in the Frederickson Community Plan supplements the guidance provided in the Transportation Element of the Pierce County Comprehensive Plan.

Transportation improvements that are financially programmed within the next six years can be found in the County's Transportation Improvement Program (TIP). The TIP is updated annually and provides a snapshot of the transportation improvements programmed for the following six years. The Frederickson Community Plan and the Transportation Element of the Pierce County Comprehensive Plan help determine which transportation improvements will be included in the TIP. The timing of projects and the phasing of various parts of projects are largely based on the anticipated funds available for each project. Unfortunately, the factors determining funding and priority can and do change from year to year.

The Pierce County Transportation Plan includes policies detailing the process used to prioritize transportation improvement projects. The policies list criteria such as safety/accidents; congestion/level of service; incomplete transit, roadway, bicycle, pedestrian, and ferry systems; traffic impacting neighborhoods; and other criteria. The intent of the policies is to use a standardized, well-documented priority process to establish clear priorities for transportation expenditures in the County.

Another important development in Pierce County's transportation planning is the collection of traffic impact fees. Pierce County uses a Traffic Impact Fee (TIF) program to provide for the equitable financing of growth-related transportation improvements. This program provides Pierce County with a systematic way to equitably distribute the "fair share" contribution for transportation improvements from developers of new projects. The TIF program is applied to new developments throughout Pierce County, including Frederickson.

ROADS AND HIGHWAYS

The transportation system in Frederickson reflects the area's rural past. The road system is primarily made up of two lane roads that are aligned north-south and east-west. However, the grid system is incomplete and there are only four primary routes into and out of the community plan area: Canyon Road East, 176th Street East, Waller Road East, and 160th Street East/ Brookdale Road East. There is a total of just under 72 miles of County roadway in the Frederickson Community Plan area.

Pierce County employs a functional classification system representing a hierarchy of roadways ranging from those serving trips between and within the larger activity and population centers (Major Arterials) to those providing circulation and access to the residential neighborhoods (Local Roads). Of the 72 miles of County roadway in Frederickson, there are approximately 11 miles of major arterials, 11 miles of secondary arterials, 15 miles of collector arterials, and 35 miles of local roadways. The County's roadway design guidelines use the functional classification system to specify design features.

Additional road and highway issues addressed during the planning process include: controlling access to arterials, minimizing impacts to the environment and wildlife, improving safety, building new facilities at the time they are needed, preserving right-of-way, and providing connections between developments.

ACTIVE TRANSPORTATION

Trails, sidewalks, bike lanes, and roadway shoulders are used for travel by bicyclists, pedestrians, skateboarders, and other active transportation modes. The Frederickson Community Plan area currently does not have any notable paved trails.

The County roadway system in the plan area includes approximately 38 miles of sidewalks, which are found on both arterial and residential roadways. An increase in sidewalk miles in recent years has been a result of both public expenditures and investment by private developers. Pierce County routinely includes sidewalks when widening roadways or constructing new roads. A recent example are the sidewalks that were added to 176th Street

East when it was widened within the plan area. The County also requires land developers to include sidewalks on roadways within their sites and County roads that front their property.

Depending on the roadway, bicycling occurs on bike lanes, shoulders, sidewalks, and within travel lanes. Historically, the County road system was primarily developed without wide, paved shoulders. In the past few decades, road construction has resulted in an increasing number of paved shoulders, like on 176th Street East. Portions of Canyon Road East contain a bike lane that was added during the widening last decade. The practice of providing facilities for active transportation is reinforced by the County Council's adoption of a Complete Streets Ordinance in 2014 (Ordinance No. 2014-44s), which directs the County to provide and require the implementation of facilities for all users on newly constructed and reconstructed roads.

The lack of active transportation facilities, such as sidewalks, paved shoulders, and trails, within the Frederickson Community Plan area has become an important issue to many in the community as the residential population continues to grow. Many of the plan's transportation recommendations include active transportation facilities to increase transportation and recreational opportunities for community residents, such as the development of trails along the old Tacoma Eastern Railroad.

RAIL SERVICES

The Tacoma Rail Mountain Division owns the railroad lines traveling through the Frederickson Community Planning area. The length of rail line running through the Frederickson Community Plan area is approximately 6.5 miles. This is part of 97 miles of track in the Mountain Division. Currently, freight is carried between Frederickson, Thurston County, Lewis County, and the Port of Tacoma for interchange with the Burlington Northern-Santa Fe and Union Pacific railroads for service to all parts of the U.S., Canada, and Mexico.

Passengers may be carried on the rail lines in the future. One possibility is to run a passenger train from Frederickson to connect to the Sound Transit regional rail in downtown Tacoma. An excursion opportunity is a train between Freighthouse Square in Tacoma and the proposed Inn at Park Junction located near Elbe/National. The "Train to the Mountain" is envisioned, but will require substantial upgrade of track and right-of-way to allow operations at greater than 20 mph.



AIRPORT

The Shady Acres Airstrip is the only aviation facility within the Frederickson Community Plan area. The privately-owned airstrip, located just west of 46th Avenue East between 200th Street East and 208th Street East, is open to the public. According to the latest report from the Washington State Department of Transportation, the airport is the base for 30 aircraft. The

airstrip averages about 4,000 operations per year, which is approximately 12 percent transient general aviation and 88 percent local general aviation.

PUBLIC TRANSIT

Pierce Transit's existing routes do not travel within the Frederickson Community Plan area. The nearest bus routes are:

- #1 Carries passengers on 6th Avenue and Pacific Avenue (SR-7) to 204th Street East.
- #402 Carries passengers on Meridian (SR-161) between 176th Street East, South Hill Transit Center, Puyallup, Enchanted Parkway, and Federal Way.
- #4 Carries passengers on 112th Street East between Lakewood, Parkland, South Hill Transit Center, and Pierce College.

The Sound Transit 3 (ST3) package was approved by voters in 2016. It includes expansion of Sounder commuter rail, light rail, and express bus service within Pierce County. While there is no rail service planned within the unincorporated areas, ST3 includes increased express bus service for County residents. Express bus service enhancements will be seen in South Hill, Puyallup, Bonney Lake, Sumner, and Orting, improving access to the rail system for those Cities and surrounding unincorporated areas.

Pierce Transit adopted a long-range plan in 2016, "Destination 2040." This plan has a number of scenarios for future growth, some of which include increased bus frequencies on SR-161, bus-rapid transit (BRT) on SR-7 between Tacoma and Parkland/Spanaway, service from Spanaway to South Hill via 176th Street East, and bus service along 122nd Avenue East.

The Frederickson Community Plan encourages the inclusion of the plan area within the transit district and the extension of transit services along the major corridors, including 176th Street East and Canyon Road East. The plan also encourages the location of park and ride facilities at the intersection of 176th Street East



and Canyon Road East and the extension of express bus service to regional transportation connections. Additional transit service is contingent upon funding availability and expansion of the Pierce County Public Transportation Benefit Area.

FINANCING

Transportation projects were prioritized using several factors, including:

- 1) Priorities determined by previous community planning committees,
- 2) Traffic forecasts,
- 3) Perceived needs for the future,
- 4) Environmental and neighborhood impacts, and
- 5) Financial resources.



In 2017, over 70 percent of the County's road fund was generated from property taxes. Another 16 percent came from fuel taxes. The remaining funds were generated from other government agencies, State and federal grants, forest taxes, and miscellaneous revenues. The total of the 2017 Pierce County road fund was nearly \$73 million.

In 2017, 20 percent of the road fund was spent on road maintenance, eight percent was transferred to the County's construction fund, and 4 percent was used for management and administration. The remaining 8 percent is spent on equipment purchases, ferry operations, insurance, and other services.

The construction fund is the source of money for new construction or major reconstruction. As noted above, a percent of the Road Fund is transferred to the construction fund. In addition, the construction fund receives money from previous years' appropriations, developer fees, and successful State and federal grant applications. In 2017, the previous year's carryover was \$3 million and the total Pierce County construction fund was just over \$21 million.

According to the 2015 update to the Pierce County Comprehensive Plan, it is estimated that maintenance, operations, preservation, improvements, and administration will cost about \$1.4 billion over the next 15 years. However, only \$1.24 billion in revenues is expected. Of the \$1.4 billion in projected expenditures in the 15-year period, about \$451 million is expected to be available for construction projects. The total estimated cost for projects in the Frederickson Community Plan area is \$151 million. Building all of the projects listed in the Frederickson Community Plan area over the next 15 years would require approximately 33 percent of the County's construction budget.

TRANSPORTATION POLICIES

GOALS

- Adequate roads will be available prior to, or concurrent with, actual need;
- Neighborhoods will be more livable with new developments being designed in a manner which supports interaction of residents and pedestrian mobility, and existing neighborhoods protected from incompatible or more intense uses;
- Active transportation facilities, including sidewalks, pathways, and trails, will be planned and systematically developed within the community so that in the future residents can travel to schools, parks, commercial areas, and other destinations safely without relying upon the automobile;
- Establish firm level of service standards and provide transportation improvements that improve the level of services, as opposed to lowering the standard;
- Provide for future transportation needs by obtaining needed right-of-way in advance, as well as retaining existing right-of-way, except where it is determined that there is no future need to use the right-of-way for transportation purposes; and
- Prioritize and promote for early funding, the completion of north-south connecting roads to provide additional capacity for entering and exiting the central and south Pierce County urban area.

A quality transportation system is vital to the Frederickson community. Unfortunately, past growth in the community and surrounding areas coupled with limited public expenditures for roads and other transportation improvements have resulted in increasing levels of traffic congestion in the community and a progressive degradation in the quality of the transportation system. The current transportation system is becoming inadequate and is no longer able to fully meet the needs of area residents, business, and industry. Improvements to the transportation system are necessary to address current and future needs. Recent efforts by government, business and industry leaders, residents and others hold the promise of accomplishing some of the needed improvements. Examples of these efforts include the development of the South Canyon Corridor Plan and the reopening of freight rail service in the area. The community must build upon and supplement these efforts to achieve the transportation system it desires. At a minimum, the plan will strive to ensure:

- The transportation system within Frederickson and adjacent communities is designed and improved in a manner that seeks to balance the needs of residents, business, and industry;
- The South Canyon Road Corridor improvements north of 208th Street East are implemented and considered for future improvements along and adjacent to Canyon Road East;
- Recommended transportation improvements are implemented;

- Rail service to the Frederickson community is encouraged and improved;
- Arterial road access to, from, and within the community is improved by controlling access in a manner which improves safety and reduces congestion;
- Pedestrian and bicycle mobility is improved in the community, where appropriate;
- Transit service is encouraged;
- An equitable system of financing transportation system improvements is developed;
- The Plan area is included within the transit service district;
- Park and ride and related facilities are developed in connection with transit service;
- Additional north-south road connections parallel to SR-161 (Meridian Avenue East), Canyon Road East, and SR-7 (Pacific Avenue/Mountain Highway) provide additional ways to access the central Pierce County area;
- The Cross-Base Highway will provide significant improvement to the Frederickson area;
 and
- Limited access to roads providing connectivity, i.e., via through roads.

This system should include an impact fee system that ensures new development pays its fair share of the cost of transportation improvements necessitated by such development. All new development, regardless of size, will be subject to the system in order to avoid unmitigated cumulative impacts.

PRIORITIZED ROAD IMPROVEMENTS

The 2020 Community Plan update has identified road segments that are recommended as the highest priority for implementation and funding. The following policies highlight this prioritization and request for funding through the County's Capital Facilities Program (CFP).

- GOAL FR T-1 The highest priority road improvements are north-south corridors that provide parallel circulation to the main arterials of Canyon Road East and Meridian Avenue East.
- GOAL FR T-2 The following road projects are the highest priority of the Frederickson community for funding and improvement and are in order of highest to lowest priority:
 - **FR T-2.1** 78th Avenue East from 160th Street East to 176th Street East New road connection with sidewalks and paved shoulders;
 - **FR T-2.2** 86th Avenue East from 152nd Street East to 176th Street East New road connection with sidewalks and paved shoulders; and
 - **FR T-2.3** 70th Avenue East from 160th Street East to 204th Street East New road connection with sidewalks and paved shoulders.

Access Control

- **GOAL FR T-3** Ensure road safety and traffic flows by controlling access points on selected roadways.
 - FR T-3.1 Encourage the consolidation of access to Canyon Road East, 176th Street East and other major and secondary arterials in order to reduce interference with traffic flow on the arterials, and reduce conflicts between active transportation modes and motor vehicles.
 - **FR T-3.2** Enhance coordination of signals to address north-south flows of commuters.
 - **FR T-3.3** Expand use of permissive left turns at signals to facilitate traffic flow.

CONNECTIVITY

- GOAL FR T-4 In order to connect the community, encourage community involvement in the preparation of a road network throughout Frederickson.
 - **FR T-4.1** Through roads and active transportation facilities shall be provided when feasible in order to complete the grid system within the community.
 - FR T-4.2 Identify opportunities to add north-south road connections that parallel SR-161 (Meridian Avenue East), Canyon Road East, and SR-7 (Pacific Avenue/Mountain Highway).
 - **FR T-4.3** Require new development access roads that are connected to arterials or local roads and adequate to serve the increased vehicular and pedestrian project traffic.
- **GOAL FR T-5** Encourage development along Canyon Road East and 176th Street East that considers pedestrian use and the retrofitting of existing land and commercial uses.
 - FR T-5.1 Require existing commercial development along Canyon Road East and 176th Street East to provide pedestrian and automobile access to adjacent property when improvements are made to the existing business.
- GOAL FR T-6 Develop regulations that require new subdivisions to be designed in a manner that maximizes opportunities for connectivity.
 - **FR T-6.1** Through-roads or road stub outs shall be provided when feasible in order to increase connectivity for the community.
 - **FR T-6.2** The County shall actively explore opportunities to connect existing subdivisions and neighborhoods with surrounding subdivisions and the larger community.
 - **FR T-6.3** Ensure connections are provided between neighborhoods and to commercial centers for local traffic.
 - **FR T-6.4** Dead end roads should not be allowed.

ENVIRONMENTAL DESIGN

- GOAL FR T-7 Allow active transportation connections, including trails, through wetland buffers and other sensitive areas where roads cannot occur.
 - FR T-7.1 Pierce County should explore the need and options for providing a safe wildlife crossing and pedestrian crossing of Canyon Road East in the Clover Creek corridor when Canyon Road East is improved between 160th Street East and 176th Street East.

ACTIVE TRANSPORTATION

- GOAL FR T-8 Encourage provisions for active transportation facilities, including sidewalks and trails, where it is appropriate to provide safe and convenient access between properties and pedestrian oriented facilities.
 - FR T-8.1 Pierce County should work cooperatively with Bethel School District to develop a program to identify and fund the construction of needed sidewalks to provide safe access to existing and proposed schools.
- GOAL FR T-9 Local active transportation networks should provide reasonable direct routes to properties within the area by minimizing dead end cul-de-sacs and providing direct connections to adjacent developments.
 - FR T-9.1 Discourage the vacation of right-of-way when the right-of-way could complete the grid system within the community.
 - **FR T-9.2** Allow on-street parking on County roadways, provided the roads have adequate width.
 - **FR T-9.3** Provide active transportation access between residential and commercial uses within Centers and Corridors.
 - **FR T-9.4** Provide improved pedestrian crossings of arterials in Centers and Corridors.

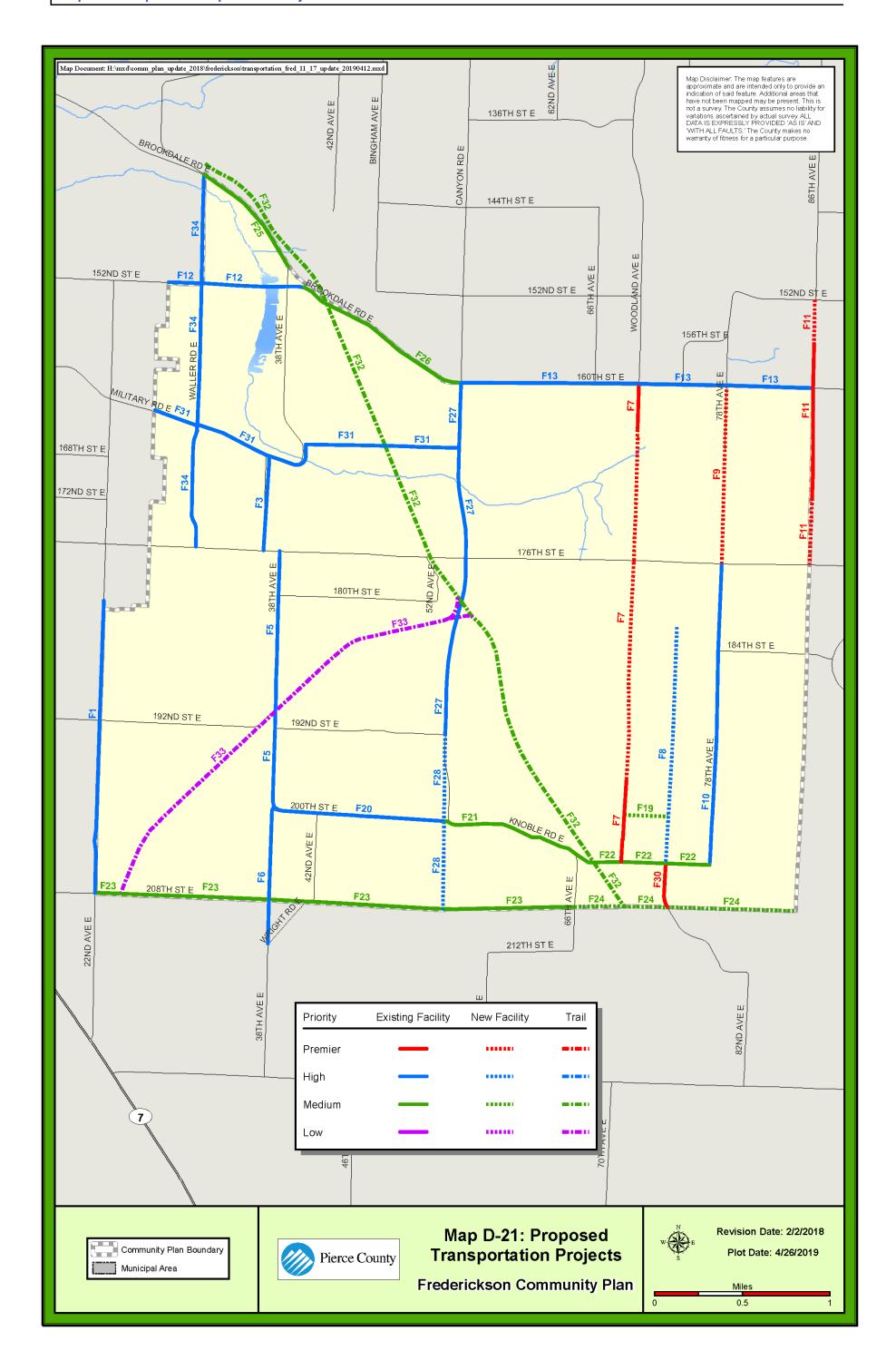
RAIL SERVICE

- **GOAL FR T-10** Support and encourage rail service as an important element of the transportation system in the plan area.
 - **FR T-10.1** Preserve rail lines in Frederickson to provide transportation and economic benefits to Pierce County.
 - **FR T-10.2** Improve passenger and freight rail service.

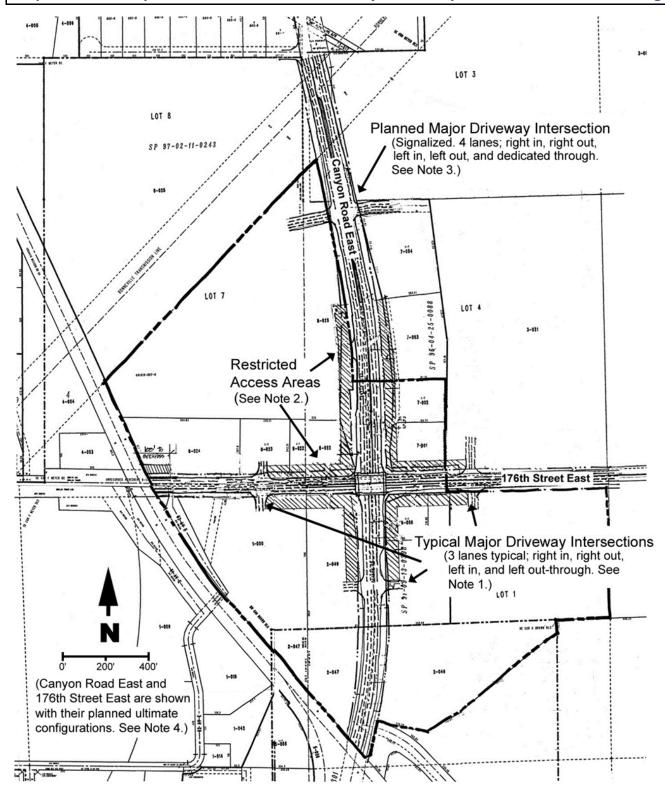
TRANSIT

GOAL FR T-11 Encourage Pierce Transit to evaluate and prioritize service on the following routes:

- **FR T-11.1** 176th Street East between Pacific Avenue (SR-7) and Meridian Avenue East (SR-161); park and ride lot at 176th Street East/Tacoma Rail;
- FR T-11.2 Canyon Road East to its new terminus; park and ride lot/train station in the vicinity of Canyon Road East/176th Street East; and
- FR T-11.3 Express bus service to connect Canyon Road East and 176th Street East to the closest north commuter rail station, either in Tacoma or Puyallup, by way of Canyon Road East.



Map D-22: Driveway Use Restrictions and Planned Major Driveway Entrance Points and Traffic Signals for the Canyon Road East/176th Street East Intersection



Note 1: The Major Driveway Intersections depicted on this drawing to the west, south, and east of the intersection of Canyon Road East and 176th Street East are intended to illustrate the closest points that they may lie in relation to that intersection. A development proponent may shift the location of any of those three major driveways further away from the intersection in connection with a development proposal only if the owner(s) of the property across Canyon Road East or 176th Street East (as the case may be) from the subject development consent to the proposed shift.

Note 2: Restricted Access Areas are shown with hatch lines and denote areas where new driveways will be limited to those designated for right in and/or right out only traffic movements. Additionally, existing driveways located within these areas may be limited to right in and right out only traffic movements when traffic volumes or improvements to Canyon Road East or 176th Street East warrant such limitations. Applications for right-turn driveways within the Restricted Access Areas will be reviewed at time of application submittal, with spacing generally not to be less than 200 feet between driveways and/or intersections. The appropriate location of all driveways within the Restricted Access Areas shall be determined by the Pierce County Public Works and Utilities Department. Temporary full access at these driveways may be allowed by the Pierce County Public Works and Utilities Department based upon a review of traffic conditions and construction of improvements to Canyon Road East and 176th Street East. If granted, this temporary full access will terminate at such time as traffic volumes warrant or at such time as Canyon Road East or 176th Street East are constructed to their ultimate planned configurations as set forth in Note 4, whichever occurs first.

Note 3: The requirements of this plan shall not preclude any property owner from proposing an additional Major Driveway Intersection on Canyon Road East north of 176th Street East and south of the Planned Major Driveway Intersection shown on this plan through a request to the Pierce County Public Works and Utilities Department. There is no assurance, however, that such an additional driveway will be approved.

Note 4: This plan illustrates Canyon Road East and 176th Street East in their ultimate planned configurations as follows:

Canyon Road East north of 176th Street East - 8 lanes including 1 right turn lane, 2 through lanes and 2 left turn lanes southbound, and 3 through lanes northbound.

Canyon Road East south of 176th Street East - 7 lanes including 2 through lanes southbound, and 2 left turn lanes, 2 through lanes, and 1 through-right turn lane northbound.

176th Street East west of Canyon Road East - 6 lanes including 2 through lanes westbound, and 2 left turn lanes, 1 through lane, and 1 right turn-through lane eastbound.

176th Street East east of Canyon Road East - 7 lanes including 2 through lanes eastbound, and 2 left turn lanes, 2 through lanes, and1 right turn only lane westbound.

Chapter 8: Plan Monitoring

PURPOSE

The 1990 State Growth Management Act (GMA) requires jurisdictions planning under GMA to report on progress made in implementing the Act, and to subject their comprehensive plans to continuing evaluation and review. As part of the County's Comprehensive Plan, the Frederickson Community Plan is subject to this requirement. One mechanism for conducting this evaluation and review is to monitor the development standards, regulations, actions, and other programs called for in the plan to determine the effectiveness in fulfilling the vision of each of the six plan elements.

GMA (RCW 36.70A) requires all counties with a population of 50,000 or more with a high rate of population growth to designate urban growth areas (UGAs). GMA requires that these UGAs be of sufficient size to accommodate the anticipated population growth during the 20-year period following the adoption of the UGA. In accordance with GMA, the Pierce County Council has adopted UGAs for Pierce County and its incorporated cities and towns. Pierce County completes a Buildable Lands report, which includes capacity analysis and land development trends monitored over a five-year period. The latest Pierce County Buildable Lands report was published in 2014.

While the Buildable Lands report monitors the effectiveness of land use policies related to where growth and development will take place, additional plan elements should be monitored for effectiveness through other means. This monitoring should result in updates to the plan to ensure the community's vision for their area is realized. Information obtained from the monitoring program will be used to offer recommendations to decision makers as to what changes the community plan may need in order to attain specified goals and meet the visions in the plan.

In addition to regular monitoring, a comprehensive community plan update is necessary at least every 15 years to ensure that the vision identified in the community plan remains consistent with the community's goals as the community changes over time.

How to Measure the Effect of Standards

The Frederickson Community Plan identifies actions that need to be implemented to meet its vision, goals, objectives, principles, and standards. Monitoring evaluates the effectiveness of the actions in fulfilling the plan policies. The monitoring program outlined here includes several steps which are intended to identify actions taken, the ease with which they can be used, and whether the actions actually meet the objectives they were intended to achieve.

To do this, the monitoring program is divided into five steps: Actions, Inputs, Process, Outputs, and Outcomes. Each of the steps and the responsible participant are discussed briefly here.

PHASE 1 - ACTIONS

Phase 1 monitoring would consist largely of reviewing the policies and standards stated in the plan and identifying all the actions that need to be undertaken to be consistent with the plan. The actions should be grouped according to the objectives they are intended to meet. PPW staff and the Frederickson Advisory Commission (FAC) would be the primary participants in this activity.

PHASE 2 - INPUTS

Phase 2 monitoring would determine whether actions called for in the plan have actually been undertaken and completed. PPW staff would evaluate if regulations and design standards have been adopted and are being implemented. The PPW staff, FAC, or other County departments would review the plan to determine if other actions have been completed and could be done to accomplish the vision of the plan.

PHASE 3 - PROCESS

Phase 3 monitoring would evaluate whether an action is straightforward, understandable, or easy to use. In the case of regulations and design standards, those persons who have submitted permit applications requiring compliance with the regulations and design standards would need to be involved in the evaluation. The Pierce County Hearing Examiner and the FAC, which review such applications, as well as PPW staff, would need to be included in the monitoring. PPW staff would coordinate the monitoring and could discuss permit review with review staff and the FAC to determine whether objectives are being met.

PHASE 4 - OUTPUTS

Phase 4 monitoring would determine whether the action has been carried out as stated in the plan. For example, monitoring would determine whether a regulation or design standard has been complied with and identify reasons for any noncompliance. In regard to non-regulatory activities, monitoring would determine whether the objectives of the activity have been met. Participants would include residents, property owners, the FAC, and PPW staff.

Phase 5 - Outcomes

Phase 5 monitoring would evaluate the extent to which each action results in the desired effect on the community. The primary participants are the residents and property owners in the plan area. Assistance would be provided by the FAC and PPW staff. PPW staff would assist in organizing public meetings, preparing and distributing questionnaires, and using other means to gather this information.

TIMELINE

It is anticipated that the Frederickson Community Plan will take a substantial period of time to be implemented. There are a number of actions that can be accomplished within a short timeframe, some will take much longer, and others will involve ongoing actions with no specific completion date. It is important that monitoring be done on a continuing basis with specific actions monitored at different times.

In 2020, an update to the Frederickson Community Plan was adopted. The monitoring process should be continued following the 2020 update. Similar comprehensive updates to the plan should be completed at least every 15 years, or as requested by the Pierce County Council.

In regard to monitoring the development and implementation of regulations and design standards, it would be appropriate for monitoring to be phased over time as the five phases outlined above are accomplished. Phase 1 would begin almost immediately upon the plan adoption. Phase 2 would take place within two years following the plan adoption. This would provide adequate time for the County Council to adopt implementing regulations called for in the plan. Phases 3, 4, and 5 would occur within two to three years following completion of Phase 2. This would allow time for the regulations to be applied to a number of development projects. Phase 3 analysis of how understandable the regulations are, and the ease to which they can be applied, would then be based on the application of the regulations to those projects developed within that time period. Phases 4 and 5 monitoring would be done simultaneously with Phase 3 monitoring. The total time for initial monitoring for Phases 1 through 5 would be about five years. As changes are made to regulations and design standards, the monitoring cycle would need to be repeated to address the changes.

Other actions that do not involve the implementation of regulations or design standards would be monitored on a similar timetable. Phase 1 and Phase 2 would occur within two years of adoption of the plan, while Phase 3, 4, and 5 monitoring would occur within five years of plan adoption.

As amendments are made to the plan, monitoring would need to continue to determine how effective the changes are in carrying out the goals in the plan. In addition, it would be appropriate to continue monitoring all actions in the plan every five years to evaluate whether the actions continue over time to effectively carry out those goals.

DOCUMENTATION

A review of baseline information is necessary to effectively monitor whether the goals of the Frederickson Community Plan are being met. Information regarding community attitudes, visual characteristics of the community, community services, infrastructure, business climate, land uses, permitting activity, and other community characteristics shall be evaluated.

As each phase of monitoring is completed, a report should be prepared by PPW staff which identifies the action being monitored, the specific purpose of the monitoring, methods used in monitoring, data collected, analysis of the data, and recommendations for further action. The

report should be submitted to the FAC for review and comment. If the FAC deems necessary, the report may also be forwarded to the County Council.

IMPLEMENTING ACTIONS

The list of actions in Table D-10 needs to be completed in order to implement the policies contained within this plan. They are arranged according to the timeframe within which each should be completed: short-, medium-, or long-term. Short-term actions should occur within one year of plan update. Mid-term actions should be completed within 2 to 5 years. Long-term actions should be completed within 5 to 10 years of plan update. The entity or entities responsible for leading the effort to complete the action item is listed in parenthesis following the action. Actions are assigned to the Frederickson Advisory Commission (FAC), Pierce County Planning and Public Works (PPW), Pierce County Economic Development (ED), Pierce County Parks and Recreation (Parks), and Tacoma-Pierce County Health Department (TPCHD).

RECOMMENDATIONS FOR FURTHER ACTION

In addition to determining the effectiveness of the plan in fulfilling the goals of the community, a key component to monitoring would be the recommendations for further action. These recommendations should clearly identify the specific goals being addressed, how the recommended action corrects a deficiency in the plan, how the recommended action will contribute to fulfilling the goal in question, and a timeline for completing the proposed action.

Table D-10: Implementing Actions

ID	Action	Depts.	1 yr	2-5 yrs	5-10 yrs	Overlap
1.	Community Background and Demographics					
1.1.	Monitor community population, housing, and other demographic data.	PPW	Х	Х	Х	All Elements
1.2.	Evaluate the Community Plan background information and update as necessary through the Comprehensive Plan update or amendment process.	PPW		Х	Х	All Elements
2.	Land Use					
2.1.	Ensure the viability of the Employment Center (EC) through:	PPW, ED,	Х	Х	Х	Economic
	Land use designations, zoning, and development regulations;	FAC				
	 Maintaining the land area devoted to EC uses; 					
	 Providing a transition between EC land and residential or environmentally-sensitive areas; and 					
	 Creating standards to promote compatibility with surrounding uses. 					
2.2.	Attract retail and service areas in limited locations in the community. Retail and service areas shall:	PPW, FAC	Χ	Х		Design;
	 Meet architectural and site design standards; 					Economic
	Minimize driveway access onto major roads;					
	 Be controlled by the location, scale, and range of commercial uses allowed; 					
	Be limited to identified location areas in the community; and					
	 Use standards to promote compatibility with surrounding uses. 					
2.3.	Provide for a range of housing types and densities within the community.	PPW, FAC	Χ	Χ		Design
	• Areas with no significant environmental constraints should be zoned Moderate Density Single Family. Densities should be 2 to 6 units per net acre.					
	• Areas within the Clover Creek corridor should be zoned Residential Resource to reflect the environmentally-sensitive nature of these lands. Densities should be 1 to 3 units per net acre.					
2.4	·	PPW		V		Facilities and
2.4.	Develop a regulatory framework to consider higher densities in compensation for a developer's investment in public infrastructure and services.	PPVV		Х		Services
2.5.	Complete a monitoring report to evaluate the effectiveness of regulations and incentives.	PPW		Х	Х	50.11665
3.	Community Character and Design					
3.1.	Work toward the creation of community entrances and streetscapes at identified locations through the use of design concepts and standards.	PPW, FAC				
3.2.	Develop a street tree management program.	PPW, FAC				
3.3.	Conduct a comprehensive review of the design standards and guidelines in Title 18J and update the regulations for Centers and Corridors zones.	PPW	Х			
4.	Economic					
4.1.	Act in partnership with the private sector to fund infrastructure to encourage new commercial and industrial development and encourage redevelopment to convert outdated and underutilized land and buildings to high-valued or appropriate land uses.	PPW		Х	Х	Land Use; Facilities and Services; Transportation
4.2.	Assist businesses in the community by: • Requesting that the Economic Development Department create a market assessment to help determine the viability of potential target areas. The assessment will help prioritize the potential target areas for receipt of public improvements.	ED		Х	Х	Land Use; Transportation

- assessment will help prioritize the potential target areas for receipt of public improvements.
- Forming new local business associations to help develop common promotion and future business development.
- Encouraging Pierce Transit to route bus service between and through residential neighborhoods and commercial and employment center sites and in those corridors such as Canyon Road East and 176th Street East.

ID	Action	Depts.	1 yr	2-5 yrs	5-10 yrs	Overlap
5.	Environment					
5.1.	Modify the open space corridor to include additional properties as specified in the plan policies.	PPW, FAC	Х			Land Use
5.2.	Expand Pierce County's in-lieu fee wetland mitigation program to serve the Frederickson community.	PPW	Х			Facilities and Services; Transportation
5.3.	Remove or correct barriers to fish passage based on the results of the Clover Creek Basin Plan, prioritize these projects in the Capital Improvement Program update, and construct or reconstruct infrastructure to improve fish passage.	PPW		Х		
5.4.	Install signage around the perimeter of wellhead protection areas and/or the most sensitive aquifer recharge areas.	PPW		Χ		
5.5.	Implement recommendations of the Clover Creek Basin Plan where applicable within the plan area.	PPW		Χ		
5.6.	Pursue the development of passive use trails that make connections throughout the Open Space Corridor.	Parks		Х	Х	Facilities and Services
5.7.	Enhance partnerships with the Pierce Conservation District and Washington State University-Cooperative Extension to provide public education and outreach for preserving wetlands within the plan area.	PPW, FAC		Х	Х	
5.8.	Utilize various strategies to acquire open space within the plan area. Plan policies shall be applied to prioritize open space acquisition and manage the acquired parcels for the community's long-term interest in open space conservation.	PPW, Parks, FAC			Х	Facilities and Services
6.	Facilities and Services					
6.1.	Encourage Planning and Public Works to bring roads to current standards when doing sewer projects.		Χ	Х	Χ	Transportation
6.2.	Encourage urban densities to reduce the per-unit cost of public facilities and services.	PPW	Χ	Х		Land Use
6.3.	Utilize basin planning hydrologic condition modeling when making decisions regarding the allowable range and intensity of land uses.	PPW	Χ			Environment
6.4.	Support the development of Stan and Joan Cross County Park.	Parks	Χ	Х		
6.5.	Coordinate with the Bethel School District to identify and prioritize designated school walking routes in need of safety improvements.	PPW		Х		Transportation
6.6.	Evaluate the short platting and subdivision ordinances to ensure the availability of potable water is taken into account during all phases of the permitting process.	PPW		Х		Land Use
6.7.	Amend the Coordinated Water System Plan (CWSP) to revise water service boundaries where the designated water service provider cannot provide timely or reasonable service.	PPW		Х		
6.8.	Partner with the Bethel School District to facilitate joint County-District recreational opportunities within the community.	Parks		Χ		
6.9.	Partner with County agencies to develop recreational facilities on the Waller Road property.	Parks		Χ		
6.10.	Coordinate recommendations from the Clover Creek Basin Plan with any updates to the community plan to address surface water runoff and flooding issues.	PPW			Х	Environment
6.11.	Frederickson Trunk Expansion - Proposed for completion by 2040: The project will provide future capacity relief for a section of the existing Frederickson Trunk on Canyon Road East between 192nd Street East and 180th Street East and will generally follow the existing Frederickson Trunk alignment serving the Frederickson Sub-basin.	PPW			Х	
6.12.	Frederickson Interceptor Expansion Phase 1 - Proposed for completion by 2040: The project will provide future capacity relief for a section of the Frederickson Interceptor at Canyon Road East and approximately 176th Street East and will generally follow the existing Frederickson Interceptor alignment serving both the Rainier Terrace and Frederickson Sub-basins.	PPW			X	
6.13.	Frederickson Interceptor Expansion Phase 2 - Proposed for completion by 2040: The project will provide future capacity relief for a section of the existing Frederickson Interceptor at 172nd Street East and Military Road and will generally follow the existing Frederickson Interceptor alignment serving both the Rainier Terrace and Frederickson Sub-basins.	PPW			Х	

ID	Action	Depts.	1 yr	2-5 yrs	5-10 yrs	Overlap
7.	Transportation					
7.1.	Encourage the consolidation of access and provisions for pedestrian access to Canyon Road East, 176th Street East, and other major and secondary arterials.	PPW	Х	Χ		
7.2.	Amend the Pierce County Transportation Plan and projects and six-year Transportation Improvement Plan to reflect the projects and priorities of the Frederickson Community Plan.	PPW	Х			
7.3.	Revise development standards to require developments to provide safe, convenient, and efficient connections between adjacent existing or future residential and commercial developments.	PPW	Х			
7.4.	Develop "model" site plans that demonstrate techniques to retrofit existing commercial development with pedestrian uses.	PPW		Χ		Land Use; Design
7.5.	Continue to minimize environmental impacts in the design and construction of transportation projects.	PPW	Χ	Χ	Χ	Environment
7.6.	Work with Pierce Transit to develop an express bus route from the Frederickson Employment Center to regional transit centers.	PPW		Χ	Χ	Economic
7.7.	Develop and implement countywide standards for a comprehensive sidewalk system within Centers and Corridors.	PPW			Χ	
7.8.	Partner with Tacoma Rail to develop active transportation routes along the rail right-of-way.	PPW			Χ	
7.9.	Work with Pierce Transit to increase the availability and effectiveness of transit within the community plan area and connections to the region at large.	PPW			Χ	Economic
8.	Plan Monitoring					
8.1.	Review initial effect of Community Plan update.	PPW		Х		All Elements
8.2.	Review effectiveness of policies and land use patterns.	PPW			Χ	Land Use