EXISTING CONDITIONS REPORT

Cities of Arlington and Marysville · December 2018

Prepared for the
Cities of Arlington and Marysville

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1.0 Introduction & Executive Summary

1.1 Subarea Planning Process

The Arlington-Marysville Manufacturing Industrial Center (AMMIC) is a designated countywide Manufacturing Industrial Center, a regional planning center classification used by the Puget Sound Regional Council to identify locations of manufacturing, industrial, or advanced technology uses within the region. As a countywide MIC, the AMMIC is recognized in countywide planning policies in the cities' comprehensive plans. Given that the AMMIC has met the minimum thresholds for employment and size, and has completed significant planning, the cities plan to apply to receive a regional MIC designation.

Regional MIC designation brings prioritization for transportation funding and gives cities an advantage for regional funding to help with infrastructure needs that support manufacturing and industry activity. From a marketing standpoint the AMMIC would be located on the Regional Centers map, which raises the profile of the area and signals long-term policy support for industrial activity.

PSRC designation criteria require the cities to complete a subarea plan as part of the regional designation process. Subarea planning allows for the establishment of a shared, long-term vision, and a more coordinated approach to development, environmental review, and strategic capital investments.

The steps in the AMMIC Subarea Plan process are shown below in Exhibit 1-1.

Exhibit 1-1 Arlington Marysville Plan Process

This document is part of the first stage to summarize existing conditions in the Arlington-Marysville MIC Study Area. This analysis will inform Visioning and Subarea Plan preparation.

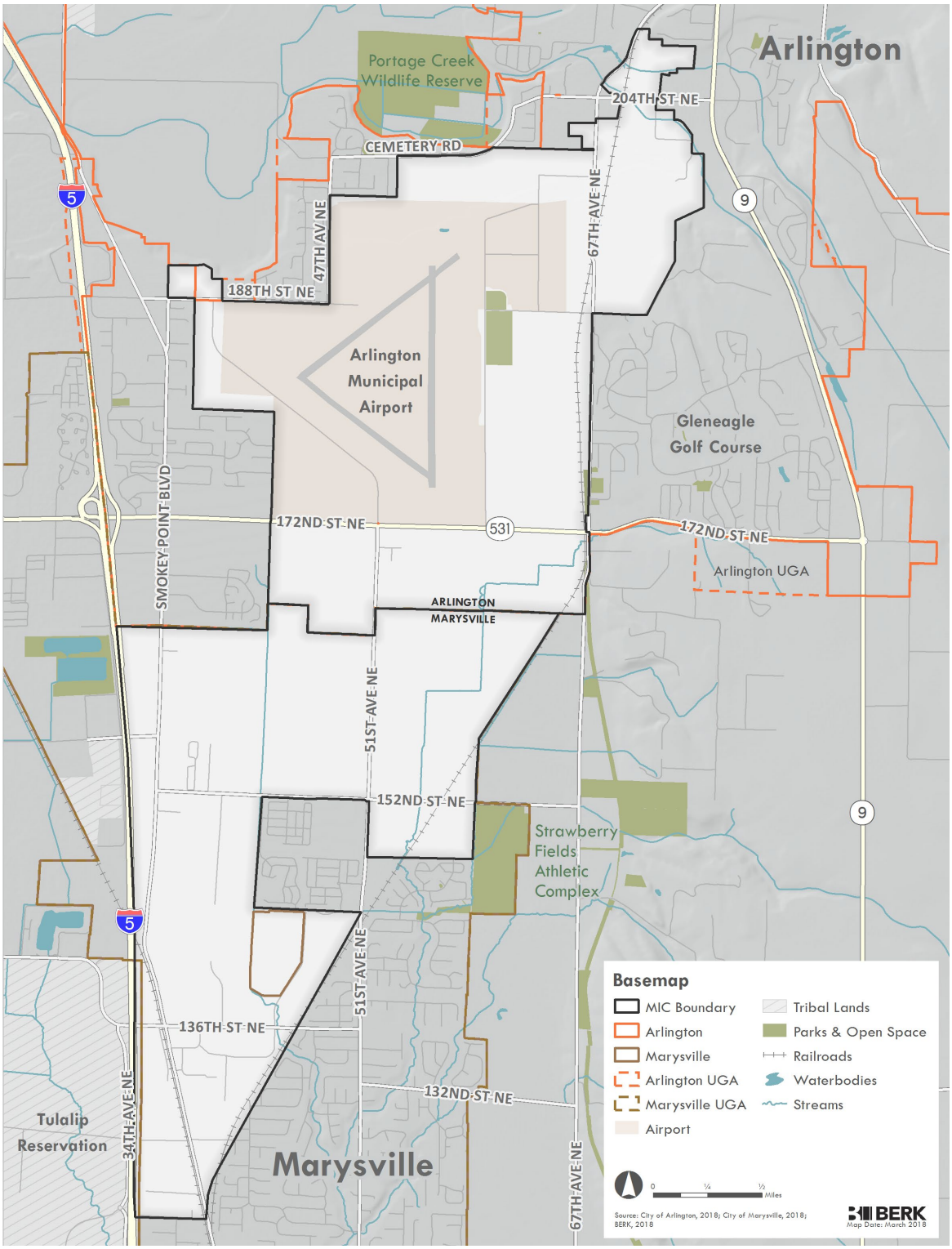
1.2 Study Area

The Arlington-Marysville Manufacturing Industrial Center consists of 4,019 acres located in Snohomish County. The AMMIC is located in a low basin, east of I-5 and the Tulalip Reservation. See Exhibit 1-2.

The AMMIC is comprised of parcels within the Cities of Arlington and Marysville. These two areas are useful for comparison and are described within this existing condition analysis.

- **Arlington:** The Arlington portion of the AMMIC includes 2,291 acres. This includes the 1,189 - acre City-owned and operated Arlington Municipal Airport (AWO).
- **Marysville:** The Marysville portion of the AMMIC includes 1,728 acres. This includes the City of Marysville's 2007 Smokey Point Master Planning Area of approximately 665 acres.

Exhibit 1-2 Study Area



Source: City of Arlington, 2018;City of Marysville, 2018; BERK, 2018.

1.3 Summary

This report addresses a range of natural and built environment subjects, describing them for the Study Area as a whole, and for the areas within the individual cities.

- Natural Environment
- Land Use and Plans and Policies
- Economic Development
- Transportation
- Public Services and Utilities

The key conditions found in this report are summarized in Exhibit 1-3.

Exhibit 1-3 Top Takeaways – AMMIC Conditions

 *Natural Environment*	▪ A sizable percentage of the undeveloped portion of the Marysville part of the AMMIC is adjacent to Hayho, Westphal, and Edgecomb Creeks and also has a high potential for wetlands due to shallow groundwater and mapped hydric soils. ▪ Development planning in the AMMIC would benefit from a more thorough field assessment of wetland presence and an integrated evaluation of stream realignment options. ▪ A better understanding of these two factors will enable more effective planning and allow the development to plan for, integrate, and optimize the management of the environmental resources, rather than managing the environmental resources on a project-by-project basis as development occurs.
 *Land Use*	▪ Current development in the AMMIC is largely industrial. The Comprehensive Plan Future Land Use Designation and Zoning authorize industrial uses. ▪ Considering current zoning and vacant and redevelopable land, there is a large capacity for new industrial employment uses.

Economic Development

- The AMMIC is mostly in industrial use and contains nearly 7,597 jobs. A market study in 2016 showed there was market potential for job growth in the AMMIC.
- Businesses in advanced manufacturing, especially related to aerospace, food processing, and mass timber production are likely to find the AMMIC to be an attractive location and contribute to job growth. Many of these businesses can be attracted to the area through appropriate investments in infrastructure, and workforce development, as well as appropriate zoning and design standards to ensure industrial uses continue to be viable.

Transportation

- Freight and auto travel to and from the AMMIC is facilitated primarily by 172nd Street NE (SR 531), 51st Avenue NE, 67th Avenue NE, and Smokey Point Boulevard. The area currently has limited connectivity and the operations of the transportation system are impacted by conflicts between rail, vehicular, and non-motorized traffic due to conflicts at-grade crossings. Planned transportation improvements in and around the AMMIC will increase capacity, reduce conflicts with the railroad, and improve connectivity. This includes widening of 172nd Street Ne between 43rd and 67th Avenues and the new I-5/156th Street NE interchange and extension of 156th Street NE, which will increase capacity in the area.
- Approximately 45% of AMMIC employees live within less than 10 miles of the subarea and approximately 30% live within 24 miles of the subarea. Employees living proximate to the AMMIC makes non-motorized and transit modes viable alternatives.
- Key bicycle routes include the Airport and Centennial Trails, which are not connected to each other and the Centennial Trail which does not connect directly to the AMMIC. There are opportunities to connect these trails and improve the non-motorized facilities within the AMMIC as existing and new roadway improvements are completed. The Cities will consider bicycle and pedestrian facilities with improvements to existing roads and constructing new roads. These improvements would need to balance the needs of industrial businesses and the needs of users of the non-motorized network.
- Transit service to the AMMIC area is currently limited and strategies will need to be explored to help reduce reliance on single occupant vehicles (SOV). Community Transit's has a long-range plan to provide Swift, bus rapid transit, along Smokey Point Boulevard with a potential stop at the planned I-5/156th Street NE interchange. Other improvements may consider additional service and connectivity to park and ride facilities.

Public Services

- In the Arlington portion of the AMMIC, most infrastructure is in place and the City has begun planning for service in the underdeveloped areas, south of 172nd Street NE. Some infrastructure will need to be upgraded as redevelopment occurs, and the City has begun planning for this.
- In the Marysville portion of the AMMIC, much of the area lacks infrastructure to serve development. The City has planned some infrastructure expansion near the Smokey Point Neighborhood.
- As the AMMIC develops, infrastructure will need to be planned, designed, and built to support the intended land use. The Cities will need to decide how much to invest in infrastructure to encourage more rapid development. Alternately the City could expand infrastructure more incrementally as development occurs. Tools such as local improvement districts, latecomer fees, or investments by external entities could be used to facilitate infrastructure construction.

2.0 Natural Environment

2.1 Surface Water & Groundwater Resources

2.1.1 Surface Water

The Study Area includes several named streams, which are shown in Exhibit 2-2 and discussed below for the City of Arlington and the City of Marysville portions of the MIC.

City of Arlington

The Arlington portion of the MIC straddles the divide between two river basins, the Stillaguamish and the Snohomish, which are regionally recognized as Water Resource Inventory Areas (WRIAs) 5 and 7, respectively" (Arlington 2010). To the north, runoff ultimately drains to the Stillaguamish via Portage Creek or the South Fork Stillaguamish. To the south, runoff ultimately drains to the Snohomish via the Middle Fork Quilceda Creek. The northern portion of the area sits upon Arlington Alluvium, a very porous substrate with high infiltration potential. South of the divide between watersheds, high groundwater limits the potential for stormwater infiltration.

The Arlington portion's stormwater infrastructure includes a collection, treatment, and storage systems with outfalls to some of these streams, relying on them to convey storm flows away from the Study Area. "Runoff from urbanizing areas often results in greater volumes and more rapid rates of water flow over shorter durations relative to undeveloped areas. These modified flows can degrade the channels and harm the aquatic ecosystems they support" (Arlington 2010). Arlington has completed a number of culvert replacement projects to improve fish passage and reduce localized flooding in the area.

Most or all segments of the Stillaguamish River are identified (listed under CWA 303d) as impaired for fecal coliform, dissolved oxygen, and temperature. "Clean-up plans developed under two Stillaguamish Total Maximum Daily Load studies (TMDLs) are enforced through the NPDES wastewater discharge permit for the Arlington Water Reclamation Facility, and the NPDES Phase II stormwater general permit for Arlington and other cities" (Arlington 2017a). Surface water resources to the south of the Study Area are discussed in the following section.

City of Marysville

The Marysville portion of the MIC is located within the Snohomish River Drainage Basin within Water Resource Inventory Area 7 (WRIA 7), the second largest watershed in the state. The Quilceda Creek basin is the largest basin within the Study Area. It runs north-south and is predominately located within the Marysville Trough. It generally consists of till and outwash soils. "Although outwash soils usually drain well, high groundwater in the winter months creates saturated soil conditions that impedes infiltration, and commonly results in a high rate of surface water runoff" (Marysville 2016). Groundwater levels have been evaluated in the context of relocating Edgecomb Creek (Otak Inc. 2009).

The Marysville portion's existing stormwater management system consists of a combination of open ditches, pipes, catch basins, culverts, and stormwater management facilities. This system includes waterways within the Quilceda Creek basin. "These waterways have been manipulated and channelized over the years and are highly susceptible to environmental problems such as pollution, erosion, and flooding" (Marysville 2016). Localized flooding has been an issue in the area and the City has planned conveyance and culvert improvements, as well as stormwater management facilities, to reduce flooding. These projects will need to be further developed and implemented as development occurs.

Non-point source pollution from agriculture and urban development have increased the presence of pollutants in Study Area surface waters. Quilceda Creek has been placed on Washington State's 303(d) list for fecal coliform. Low dissolved oxygen levels are also a concern in the summer months and can compromise crucial fish and wildlife habitat. The Quilceda Creek system is within the Tulalip Tribes' usual and accustomed fishing areas. Land use within this system is therefore governed by a variety of tribal, state, county, and city regulations (Marysville 2016).

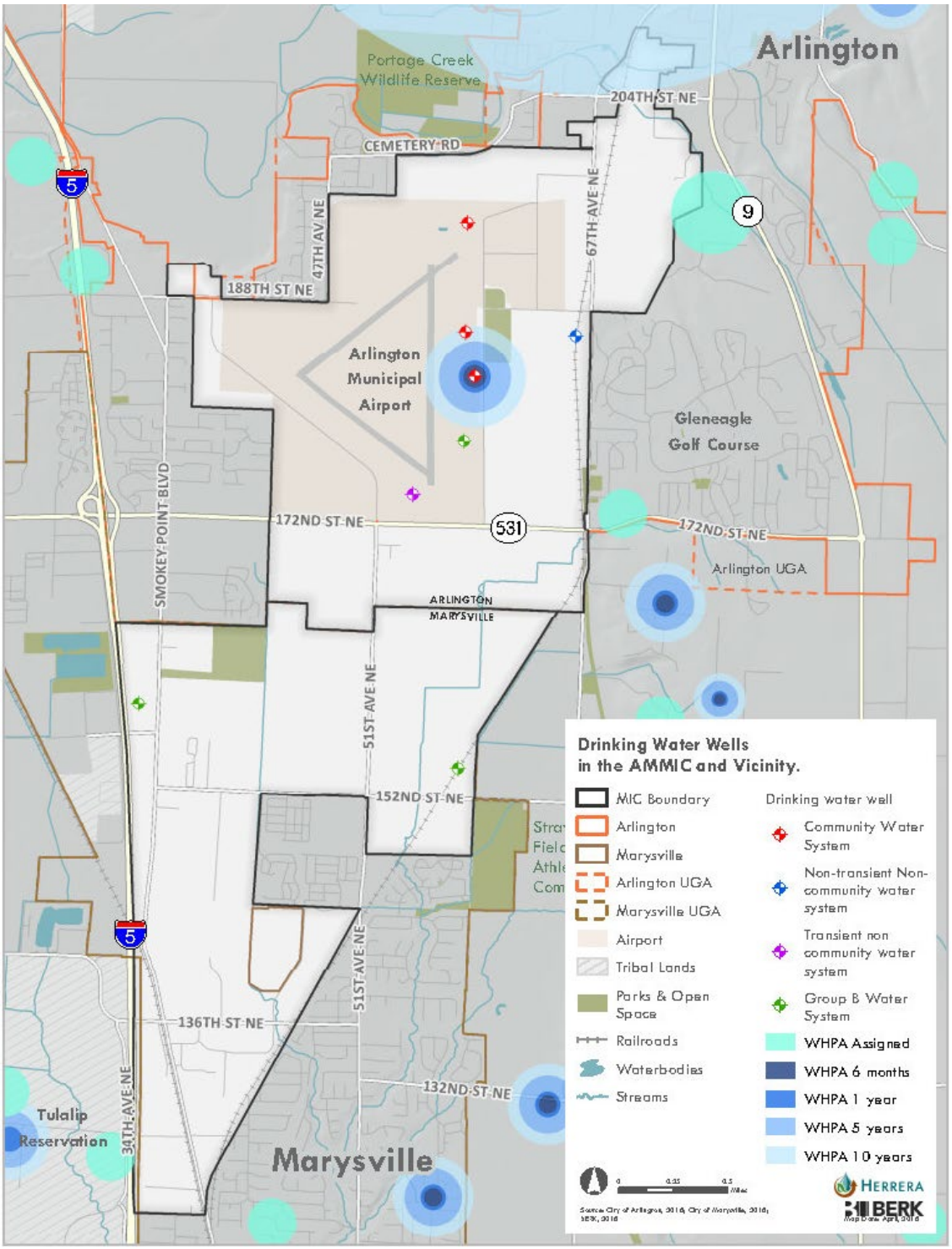
2.1.1 Potential Creek Realignment

Hayho, Westphal, and Edgecomb Creeks flow from north to south across the Marysville portion of the MIC and much of the area surrounding the two streams would be converted to more intensive land use during development of the MIC. Over the last decade, Marysville has evaluated the feasibility of relocating the streams and has examined potential alternative alignments (Marysville 2015). The prior evaluation is discussed in more detail in the Critical Areas section. Plans for the potential relocation have been on hold with the intention of resuming the project when development of the Marysville portion increases.

2.1.2 Wells & Groundwater

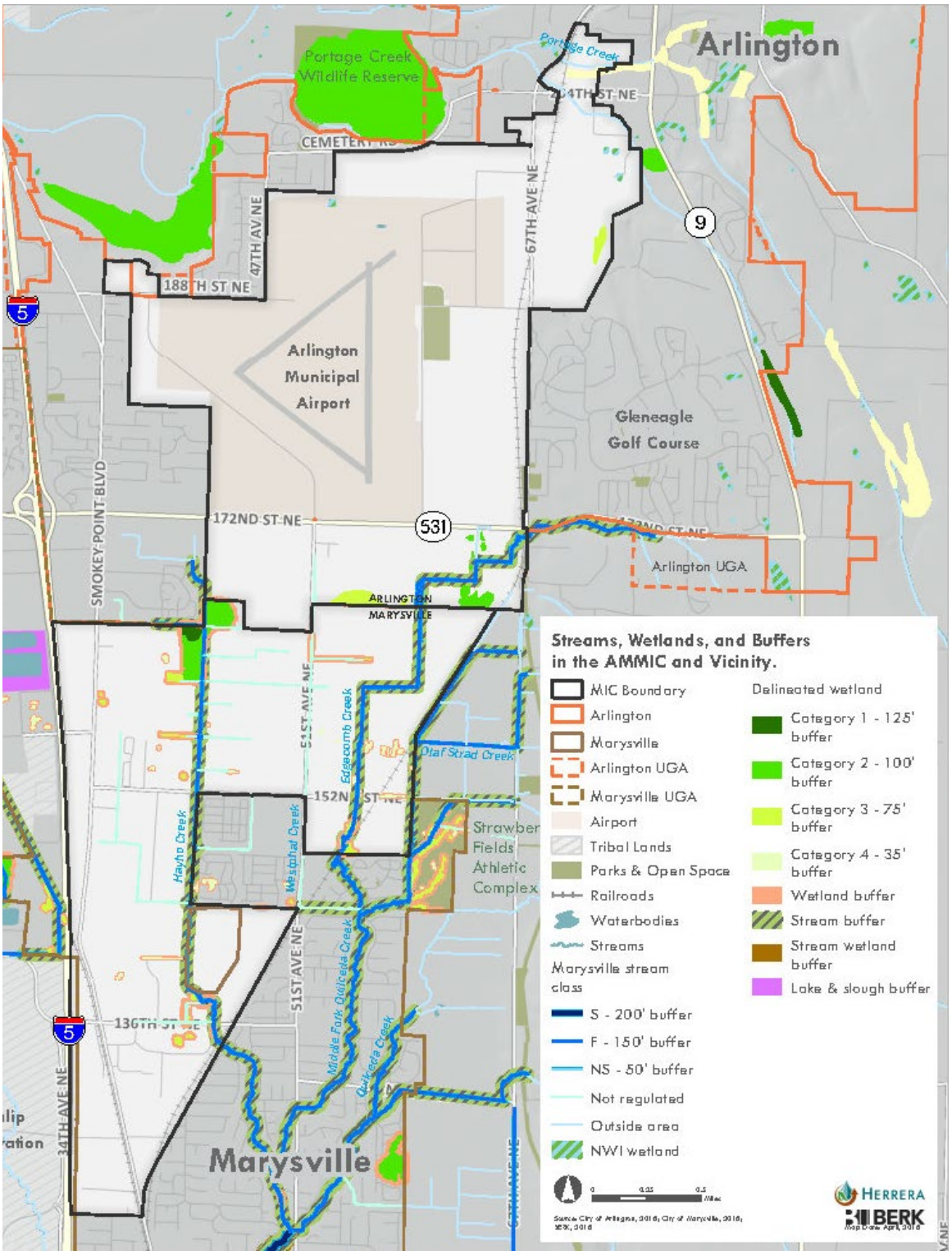
There are eight mapped groundwater wells within the project Study Area and many wells in the vicinity. See Exhibit 2-2. There is one mapped wellhead protection area (WHPA) near the Arlington Municipal Airport and two WHPAs that extend into the northwest corner of the Arlington portion of the Study Area. The Washington State Department of Health administers requirements for water systems (WAC 246-290 through 246-296). Wellhead protection requirements may restrict land use practices in some parts of the Study Area.

Exhibit 2-1 Groundwater Wells



Source: City of Arlington, 2018; City of Marysville, 2018; Herrera, 2018.

Exhibit 2-2 Streams, Wetlands, and Buffers



Source: City of Arlington, 2018; City of Marysville, 2018; Herrera, 2018.

2.2 Critical Areas

Critical areas are protected under Washington State's Growth Management Act (GMA) to preserve the natural environment and protect the public's health and safety. Critical areas provide benefits such as clean drinking water, enhanced water quality, fish and wildlife habitat, and reduced flood risk (Commerce 2018). The GMA identifies five critical areas (RCW 36.70A.030(5)):

- Wetlands
- Areas with a critical recharging effect on aquifers used for potable water
- Frequently flooded areas
- Geologically hazardous areas
- Fish and wildlife habitat conservation areas

The cities of Marysville (Marysville 2018) and Arlington (Arlington 2018) document two types of critical areas within the study area: wetlands and fish and wildlife habitat conservation areas (FWHCAs).

2.2.1 Wetlands

Previous studies have identified several wetlands in the study area. The National Wetlands Inventory (NWI) online mapper depicts several wetlands in the study area (USFWS 2018), most of which are in the City of Marysville: eight palustrine (non-tidal) emergent wetlands ranging from 0.33 to 4.78 acres in size; one palustrine forested wetland covering approximately 2.83 acres; and five freshwater ponds ranging in area from 0.34 to 1.2 acres. The City of Marysville documents one Category I/Category II wetland on the site at the headwaters of Hayho Creek. Several other Category III and Category IV wetlands are found throughout the site, including some associated with Edgecomb and Hayho Creeks. See Exhibit 2-2. The City of Arlington identifies several Category II wetlands associated with Edgecomb Creek; two Category III wetlands on the Arlington/Marysville border, and one Category III wetland in the northeast corner of the site. See Exhibit 2-2. Standard buffer widths vary by jurisdiction, and range from 35 feet for a Category IV wetland to 190 feet for a Category I wetland. See Exhibit 2-3. Any development within a wetland or buffer will require compensatory mitigation at the appropriate ratios.

Exhibit 2-3 Regulatory Buffer Widths for Wetlands

WETLAND CATEGORY	BUFFER WIDTH (FEET)			
	Marysville	Arlington		
		Standard	*If wetland habitat scores 5 points*	*If wetland habitat scores 6-7 points*
Category I (based on total score)	125	75	105	165
Category I (bogs and wetland of high conservation value)		190	190	190
Category I (forested)		75	105	165
Category II	100	75	105	165
Category III	75	60	105	165
Category IV	35	40	40	40

According to soil survey maps, approximately 50% of the site contains hydric soils, consisting of Custer fine sandy loam (30%), and Norma loam (20%; NRCS 2018). The presence of hydric soils indicates a higher likelihood of wetlands on the site. Hydric soils are more prevalent on the southern portion of the site (south of State Route 531), corresponding to the higher number of wetlands identified in that location on the NWI maps.

2.2.2 Fish & Wildlife Habitat Conservation Areas

Several streams and ditches in the study area constitute FWHCAs that provide habitat for federal and state listed fish species. None of the wetlands in the study area are designated as FHWCAs. Terrestrial habitats in the study area consist of agricultural, residential, commercial, and industrial areas. There are a few isolated forest fragments adjacent to Arlington Municipal Airport and within wetland and stream buffers. These areas provide habitat for a variety of bird and mammal species, but none of these habitats or species are documented as WDFW Priority Habitats or species (WDFW 2018a), or as habitats for species of local importance.

There are 4 creeks that flow through the study area: Edgecomb Creek (also referred to as the Middle Fork of Quilceda Creek), Westphal Creek, Hayho Creek, and Portage Creek. See Exhibit 2-2. Within the study area, Edgecomb Creek straddles the cities of Marysville and Arlington. Westphal and Hayho Creeks are entirely within the City of Marysville, and Portage Creek is within the City of Arlington. Edgecomb, Hayho, and Portage Creeks are classified as Type F streams, which are natural waters that have a substantial fish, wildlife, or human use. Type F streams have a buffer of 150 feet. Westphal Creek is not regulated by the City of Marysville and has no regulatory buffer. As with wetlands, development within the regulatory buffer of a creek will require compensatory mitigation.

Edgecomb Creek originates in the hills east of the study area, flowing west and then south through the study area before draining into the middle fork of Quilceda Creek. Within the study

area Edgecomb Creek has been highly channelized for rail and agriculture (Marysville 2015). There is a narrow riparian buffer along the creek, but most of the land surrounding the creek has been converted to agricultural uses. The City of Marysville has proposed to relocate the creek from its current alignment into a more natural channel with a riparian corridor that would provide better fish and wildlife habitat. The conceptual channel alignment would include (Marysville 2008):

- a low-flow channel for year-round stream flow
- a high-flow channel to convey flood flows, to address flooding issues in the basin
- instream large woody debris for habitat
- 100- to 150-foot buffers on either side of the creek along the entire length of the project
- native vegetation planting in the channel and buffer
- off-channel reading habitat
- connection to hillside streams north of 162nd Street NE

Creek restoration would also provide an opportunity to integrate habitat enhancement with stormwater management (Marysville 2015).

WDFW has identified several culverts on Edgecomb Creek within the study area that pose a partial barrier to fish passage (WDFW 2018b). Removing or retrofitting those culverts to provide complete fish passage to all life stages of fish during all flows would improve salmonid habitat in the study area.

The headwaters of Westphal Creek are within the study area, just south of SR 531 (USGS 2018). The creek consists of a straight channel, intersected by a few agricultural ditches, that flows due south through agricultural land into Quilceda Creek. A narrow vegetated riparian strip borders the creek.

Hayho Creek originates from the wetland south of SR 531. The creek flows south in a straightened channel through agricultural fields on the site before discharging into Quilceda Creek south of the AMMIC. Several agricultural ditches flow into the creek. A narrow riparian buffer consisting primarily of shrubs and small trees borders the creek. The City of Marysville plans to maintain Hayho Creek in its current alignment.

Portage Creek originates in the hills east of Arlington and flows generally northwest through the northeast corner of the study area before draining into the Stillaguamish River approximately 3.4 miles west of the study area. Portage Creek is designated by the City of Arlington as an Urban Conservancy-Low Intensity shoreline, the purpose of which is to protect and restore ecological functions while allowing a variety of low-impact uses that do not deplete the shoreline's physical and biological resources; or substantially degrade the ecological functions or the natural character of the shoreline area (Arlington 2012). The City of Arlington Comprehensive Plan (Arlington 2017) notes that surface water quality and quantity of riverine and riparian habitats

are in a state of recovery, but that it is "of paramount importance that…waterways be protected and managed to improve listed species population status and recover their functionality."

All the creeks in the study area either have documented salmonid presence of have the potential to provide habitat for salmonids, several of which are federally listed as Threatened or as State candidate species. See Exhibit 2-4.

Exhibit 2-4 Listing Status and Distribution of Fish

SPECIES	FEDERAL STATUS[1]	STATE STATUS	DISTRIBUTION TYPE[2]			
			Portage Creek	**Edgecomb Creek**	**Westphal Creek**	**Hayho Creek**
Puget Sound Chinook	Threatened	Candidate	Modeled presence	Modeled presence	Modeled presence	Modeled presence
Puget Sound steelhead	Threatened	None	Modeled presence	Modeled presence	Modeled presence	Modeled presence
Bull trout	Threatened	Candidate	Presumed presence	Presumed presence	None	Presumed presence
Coho salmon	None	None	Documented spawning	Documented rearing	Modeled presence	Presumed presence
Pink salmon (odd year)	None	None	Modeled presence	Modeled presence	Modeled presence	Modeled presence
Fall chum	None	None	Modeled presence	Documented presence	Modeled presence	Documented spawning

Source: WDFW, 2018b.

[1]Under the federal Endangered Species Act, a threatened species is one that is likely to become endangered within the foreseeable future. State Candidate species are fish and wildlife species that will be reviewed by WDFW for possible listing as State Endangered, Threatened, or Sensitive

[2]Documented habitat is aquatic stream habitat presently utilized by fish based on reliable observations; presumed habitat is aquatic habitat lacking reliable documentation of fish use where, based on the available data and best biological opinion/consensus, fish are presumed to occur; modeled habitat is based on stream gradient mapped from USGS 7.5-minute topographic quadrangle maps. The natural gradient barrier for chum is 8%, and 12% for other species.

2.3 Key Findings & Implications for Plan

A large percentage of the underdeveloped portion of the Marysville portion of the Study area is adjacent to Hayho, Westphal, and Edgecomb Creeks and, based on desktop assessment, also has a high potential for wetlands due to poor infiltration, shallow groundwater, and mapped hydric soils. Development planning in the MIC would benefit from a more thorough field assessment of wetland presence and an integrated evaluation of stream realignment options. A better understanding of these two factors will enable more effective planning and allow the

development to plan for, integrate, and optimize the management of the environmental resources, rather than managing the environmental resources on a project-by-project basis as development occurs.

3.0 Land Use & Plans & Policies

3.1 Conditions

3.1.1 Acreage & Location

The AMMIC includes a total land area of 4,019 acres, of which 57% is in Arlington and its urban growth boundary and 43% is in Marysville and its urban growth boundary. The AMMIC is located close to Paine Field and I-5 as well as State Routes 99, 531, and 530. It is well connected to British Columbia, the Seattle area, and Oregon and California in the south.

3.1.2 Land Use Patterns

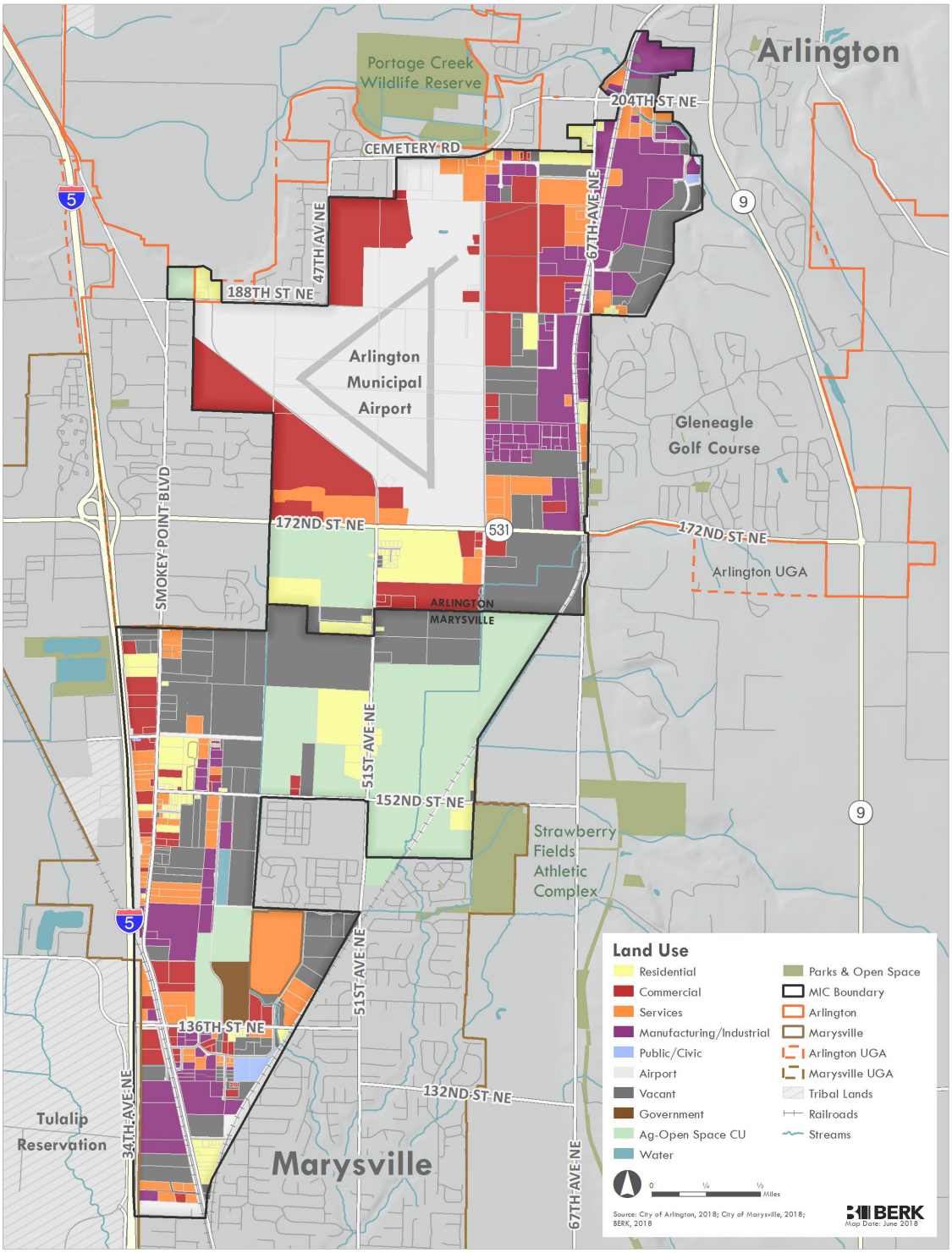
Industrial uses dominate the area. Many manufacturing, processing and fabrication firms, especially related to aerospace, are located east and northeast of the Arlington Municipal Airport, as well as along Smokey Point Boulevard. Warehousing, Transportation, and Utilities (WTU) firms cluster around the airport and major arterials. See Exhibit 3-1**.**

The publicly-owned Arlington Municipal Airport is a significant use in the AMMIC. The airport presently consists of approximately 1,189 acres and includes industrial, commercial, and public land uses, in addition to aviation operational areas. The majority of industrial development the airport is concentrated east, near 67th Avenue NE and northeast towards the Arlington Central Business District (CBD). The Airport Industrial Business Park, located west of 59th Avenue NE, within the northeast quadrant of the airport includes approximately 130 businesses that lease land and/or facilities from the City of Arlington. These businesses involve aviation or aviation-related uses associated with the airport as well as non-aviation uses. The majority of commercial, office, and business park development is located south and west of the airport and concentrated along 172nd St/SR531 NE, near the I-5 interchange.

Aviation operational areas include runways, taxiways, and general aviation facilities. The majority of the airport's existing general aviation facilities are located near 59th Avenue NE. This portion of the airport includes a variety of aircraft storage facilities, with over 400 T-hangars. The airport also includes support facilities such as for fire protection, commercial and private fueling facilities, and weather monitoring. (Barnard Dunkelberg Company, 2012)

Approximately 590 acres, primarily in the Marysville portion of the MIC, includes undeveloped parcels in the category of agricultural use. These parcels may be under current use property tax classifications under Washington's Open Space Tax Act.

Exhibit 3-1 Current Land Uses



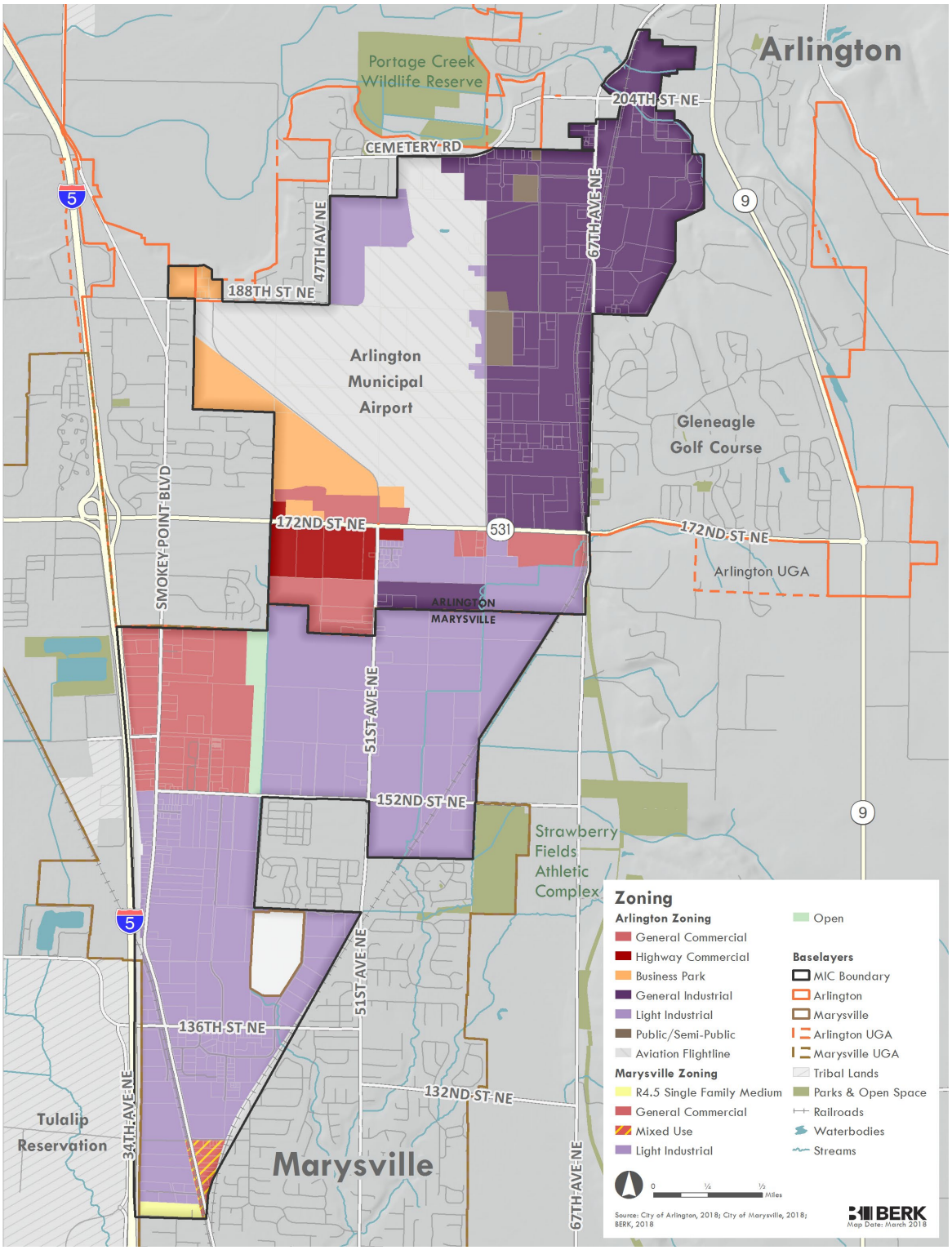
Source: City of Arlington, 2018; City of Marysville, 2018; BERK, 2018.

Reflecting its designation as a countywide MIC, close to 80% of the land in the AMMIC is zoned industrial. Zoning classifications include light industrial (40%), general industrial (22%), and aviation flightline (19%). Commercial zones constitute 13% of the MIC, and the Airport Business Park zone, another 4%. See Exhibit 3-2.

In Arlington, the area to the east and northeast of the airport is zoned General Industrial. The Arlington Airport is zoned Aviation Flightline for airport operations and uses directly related to aviation operations. A small area north of the airport is zoned for Light Industrial. The area to the west of the airport is zoned for the Airport Business Park, a roughly 125-acre contiguous parcel located near 172nd Street. In addition to the base zoning, most of the land area in the AMMIC is under an overlay called the Arlington Airport Protection District (APD). The APD is a zoning overlay that limits residential development density, certain emissions impacts, and special functions such as outdoor gatherings and institutional development near the Arlington Municipal Airport.

The majority of the Marysville portion of the AMMIC is zoned Light Industrial. This zone also includes the whole of the Smokey Point Master Plan Area. In addition, an area around Smokey Point Boulevard from 152nd Ave north to the MIC boundary is zoned General Commercial.

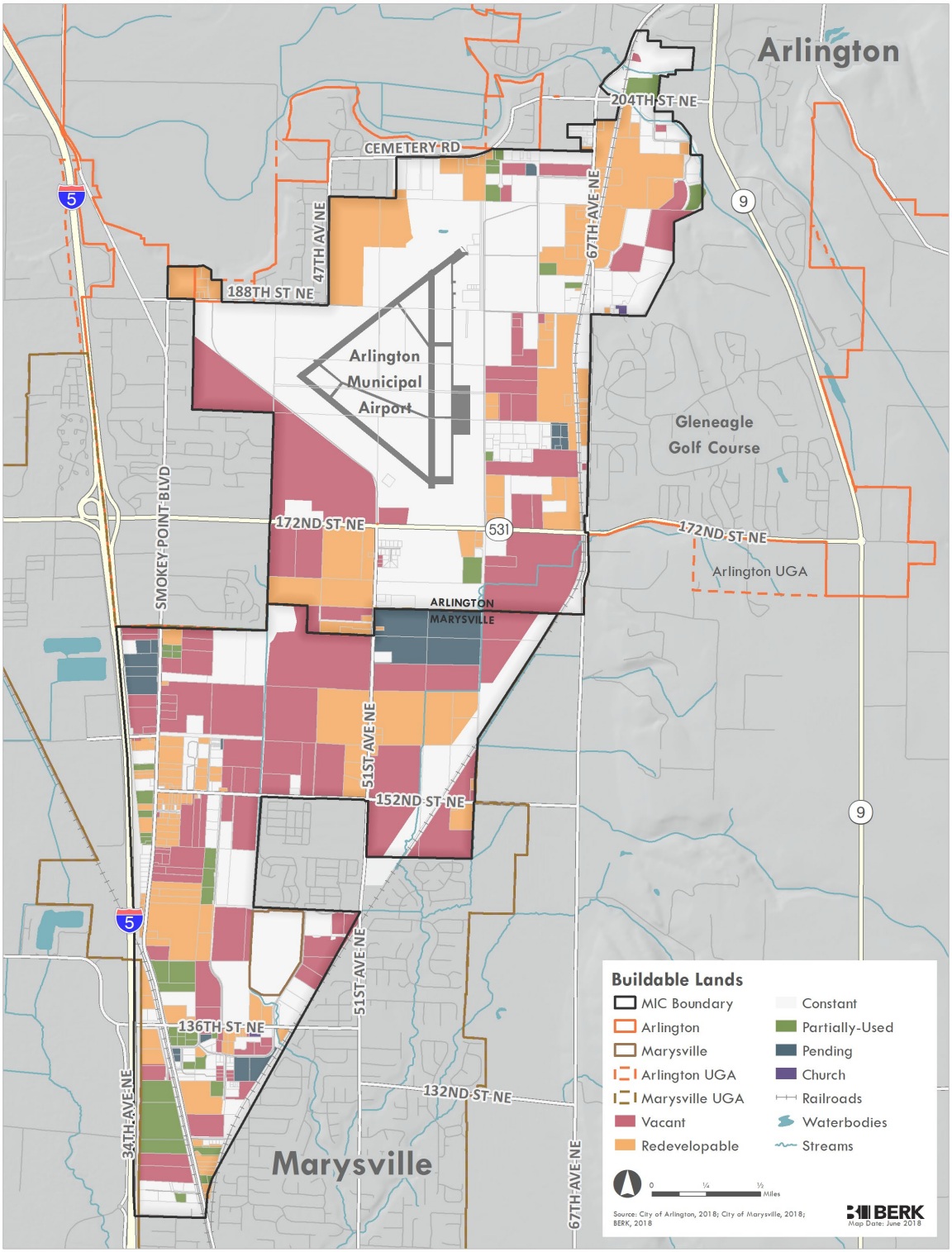
Exhibit 3-2 AMMIC Zoning Map



Source: City of Arlington, 2018; City of Marysville, 2018; BERK, 2018.

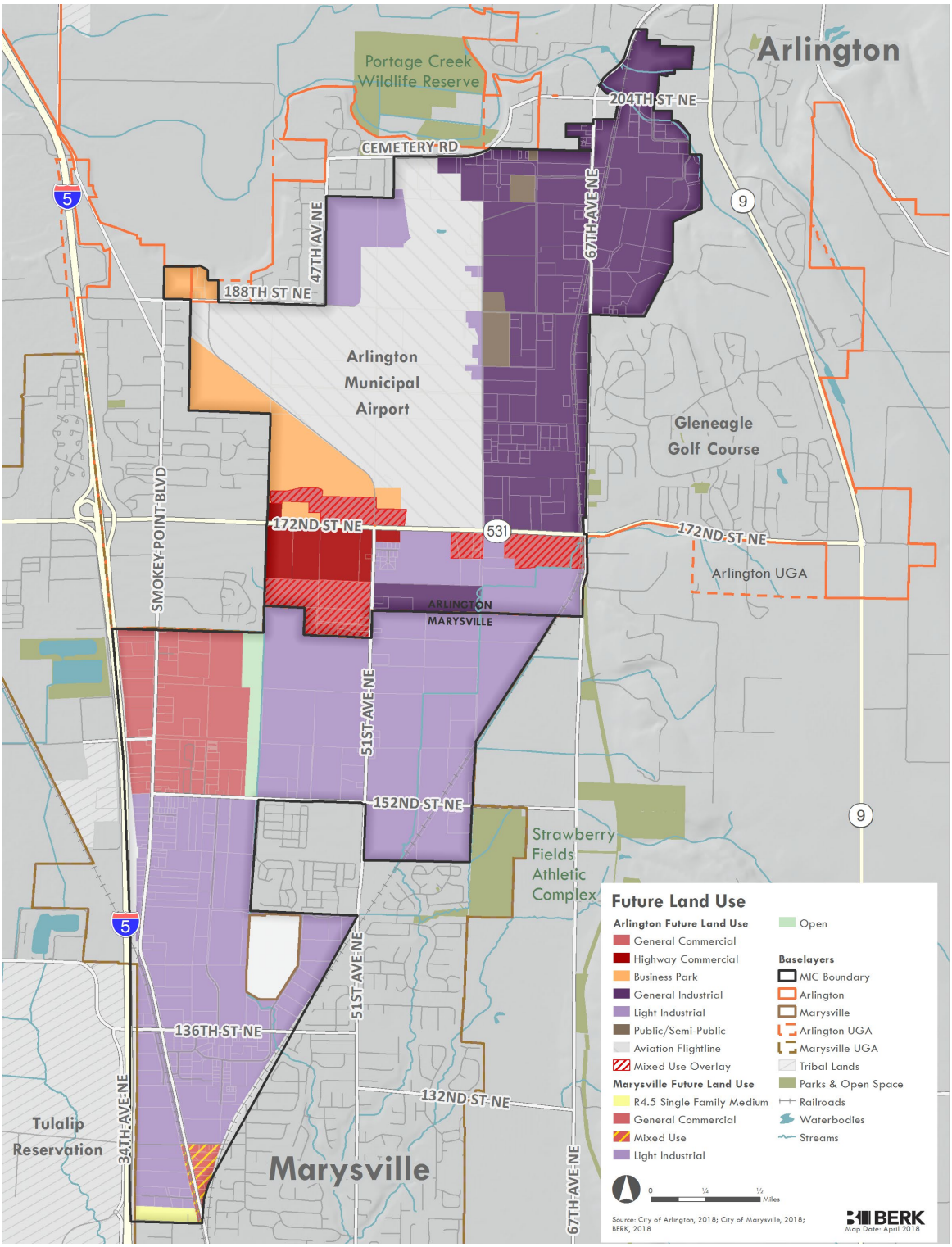
According to the 2012 Snohomish County Buildable Lands Report, within the boundaries of the AMMIC, a total of 46% of the land area or 1,762 acres consists of lands with capacity for additional development, including partially-used sites, redevelopable sites, and vacant sites. See Exhibit 3-3. (County, Snohomish, 2012)

Exhibit 3-3 AMMIC Buildable Lands



Source: City of Arlington, 2018; City of Marysville, 2018; BERK, 2018.

Exhibit 3-4 Future Land Use Plan



Source: City of Arlington, 2018; City of Marysville, 2018; BERK, 2018.

3.1.3 Plans & Policies

MIC Designation

AMMIC is a designated countywide Manufacturing Industrial Center, a regional planning center classification used by the Puget Sound Regional Council to identify locations of manufacturing, industrial, or advanced technology uses within the region. As a countywide MIC, the AMMIC is recognized in countywide planning policies and in the cities' comprehensive plans.

Local Comprehensive Plan policies that address industrial activity in the MIC are included below.

3.2 Individual City Conditions

3.2.1 Arlington Goals & Policies

The Arlington Comprehensive Plan includes several policies that promote an employment center with manufacturing, industrial, repair, and airport uses. Relevant goals and policies are included below.

Land Use Element

Industrial Land

Goals:

GOAL-12 Maintain a sufficient industrial land base in order to support a high ratio of jobs to households.

Policies:

PL-12.1 Industrial land uses should be located in the vicinity of Arlington Airport in order to take advantage of existing and anticipated transportation systems.

PL-12.2 The amount of land planned and allocated for industrial use should be reasonably scaled to meet the demonstrated demand.

PL-12.3 Industrial uses should be encouraged to share facilities such as internal roadways, parking facilities, and rail access.

PL-12.4 Industries with high job numbers that support the local resource processing needs should be encouraged.

PL-12.5 The City should pursue the designation of the Arlington-Marysville Manufacturing Industrial Center (AMMIC) in the Snohomish County Countywide Planning Policies and regional designation by Puget Sound Regional Council (PSRC).

PL-12.6 The City should support the development and growth of the Arlington-Marysville AMMIC by supporting a concentrated manufacturing and industrial base and by planning for future growth and infrastructure improvements.

PL-12.7 The City should develop appropriate zoning, design review and landscaping regulations so that manufacturing uses within the Arlington portion of the AMMIC are buffered from adjacent or abutting residential uses.

PL-12.8 The City should ensure that at least 80% of the property within the AMMIC is planned and zoned for industrial and manufacturing uses. Compatible non-industrial uses shall be as allowed under PSRC certification and be conditioned to mitigate for potential conflicts with current and future industrial uses.

Goals:

GOAL-13 Minimize the adverse impacts of industrial uses to adjacent and abutting residential properties.

Policies:

PL-13.1 Additional setbacks should be required for industrial buildings and uses that are adjacent to or abut non-industrial zoned land in order to minimize impacts. Vegetated Low Impact Development (LID) facilities may be located within these setbacks.

PL-13.2 Full screen landscape buffers (which may consist of vegetated LID facilities) should be required along industrial zoned property and non-industrial zoned properties.

Goals:

GL-14 Maintain a healthy, clean industrial district through the use of design standards and adherence to environmental standards.

Policies:

PL-14.1 Outdoor storage areas should be screened from public rights-of-way through use of both fencing and native vegetation.

PL-14.2 Landscape buffers should be installed and maintained along property lines adjacent to rights-of-way.

PL-14.3 Landscape buffers should include the use or retention of native vegetation adequate to serve as visual screens between rights-of-way and industrial uses. Landscape buffers may also consist of vegetated LID facilities.

PL-14.4 Pollutants should be managed through site design engineering and source control. Site disturbance and soil compaction should be minimized during construction. Implement source control best management practices (BMPs) to prevent soil and stormwater runoff contamination from operation and storage of heavy equipment

PL-14.5 Development Design Guidelines should be established for the Industrial Zones and the AMMIC.

PL-14.6 Open space and recreation opportunities such as parks and non-motorized trails should be incorporated in industrial areas.

Manufacturing Industrial Center

PL-15.55 As this is the predominant location for future employment in Arlington, the City should actively seek appropriate development of this area in accordance with AMMIC and PSRC Regional Centers designation criteria.

PL-15.56 A road network should be developed that makes properties more accessible and usable.

Transportation Element

Goals:

Goal T-14 Ensure that development of the AMMIC supports the movement of goods is compatible with adjacent neighborhoods and promotes a multi-modal transportation network.

Policies:

PT-14.1 The City should identify and implement short-term and long-range infrastructure improvements that support existing infrastructure and help stimulate the development of new manufacturing and industrial uses in the AMMIC.

PT-14.2 The City should work collaboratively with the City of Marysville to develop a seamless and compatible road network in order to efficiently move goods and services within and outside the AMMIC.

PT-14.3 A street design should be developed that incorporates low-impact development standards which reduces surface water and enhances aesthetics of the area.

PT-14.4 A non-motorized network should be developed throughout the area that allows pedestrians and cyclists to safely access places of employment.

PT-14.5 Landscaping along roadways and between properties that are adjacent to neighborhoods should be required to reduce noise and visual impacts.

PT-14.6 The City should utilize available State and federal transportation infrastructure funding in the AMMIC once AMMIC designation is obtained from PSRC.

PT-14.7 Roadway designs within the AMMIC should be sensitive to the needs and movement of large trucks that will frequent the AMMIC, including the installation of cueing areas for trucks delivering/receiving goods.

PT-14.8 The City should encourage existing and new businesses to utilize the BNSF railroad spur as useful resource to move goods and services within and outside the AMMIC

Economic Development Element

Employment

Goals:

E-2 Provide an adequate job-producing land base to ensure an adequate number of jobs for citizens within the community and to aid the community in paying for infrastructure and services.

Policies:

PE-2.1 The City should work to ensure that the amount of land zoned for business and industrial use is adequate to meet 20-year employment forecast within the planning area boundaries.

PE-2.3 The City should identify sectors of the economy within Arlington where opportunity might exist to create additional jobs and identify potential strategies for attracting employment. In particular, provide a supportive business environment for start-up, light manufacturing and assembly businesses in the airport/industrial area.

Arlington/Marysville Manufacturing/Industrial Center

Goals:

GOAL E-8.0 Obtain regional PSRC designation of the Arlington-Marysville Manufacturing/Industrial Center (AMMIC), jointly with the City of Marysville.

Policies:

PE-8.1 The City should work to ensure there is adequate infrastructure to support existing industrial/manufacturing uses and protect the AMMIC area from encroachment by incompatible uses in order to attract new manufacturing and industrial businesses.

PE-8.2 The City should develop policies and regulations that are coordinated with economic development strategies to encourage growth and sustain manufacturing and industrial businesses within the AMMIC.

PE-8.3 The City should make every effort to provide up-front economic information, site development data, and a streamlined permit process in order to assist existing and new manufacturing and industrial businesses in the AMMIC.

PE-8.4 The City should work to obtain a joint Arlington/Marysville Manufacturing Industrial Center (AMMIC) designation from the PSRC through collaboration with the City of Marysville, Snohomish County, and the PSRC.

PE-8.5 The City should adopt a joint resolution with the City of Marysville that requests the PSRC designate the AMMIC as a regional manufacturing industrial center and authorizes staff to submit a joint application requesting designation to the PSRC.

PE-8.6 Work to ensure that the AMMIC is in harmony with the goals and expectations established in the PSRC's VISION 2040 and multi-county planning policies.

PE-8.7 Work to ensure the boundaries of the AMMIC are within Arlington's and Marysville's respective Urban Growth Boundaries.

PE-8.8 The City should adopt an inter-local agreement with the City of Marysville that establishes the mechanism by which both jurisdictions will jointly plan for the long-term development of the AMMIC including a minimum employment capacity of 20,000 jobs.

PE-8.9 The City should develop a subarea plan for the Arlington portion of the AMMIC within two years after receiving AMMIC designation from the PSRC. The subarea

plan should address the topics described in the Manufacturing Industrial Center Plan Checklist in PSRC's Plan Review Manual.

PE-8.10 The City should ensure that at least 80% of the land located within the Arlington portion of the AMMIC boundaries have planned future land uses and current zoning designations for industrial and manufacturing uses.

PE-8.11 Ensure that there is sufficient zoned development capacity within the AMMIC to adequately accommodate the adopted target employment level.

3.2.2 Marysville

The Marysville Comprehensive Plan also includes several goals and policies that promote an employment center with manufacturing and industrial uses. Relevant goals and policies are included below.

Land Use Element

Goals:

15. Seek regional Puget Sound Regional Council (PSRC) designation of the 'Marysville-Smokey Point Manufacturing/Industrial Center' (MIC), jointly with the City of Arlington, which has designated a local MIC north of the City of Marysville that abuts our industrial area. Such a designation would open up additional funding opportunities for infrastructure.

34. Designate industrial areas in such locations and quantity so they will contribute to the economic growth and stability of the Marysville area and Snohomish County.

Policies:

LU-4 Encourage growth that will transform Marysville from a residentially dominated community to one that provides a balanced, though not equal, proportion of both residences and employment. This will include the Marysville-Arlington Manufacturing Industrial Center (MIC) and the Smokey Point Master Plan Area as a major employment center.

LU-9 Encourage a harmonious blend of opportunities for living, working, and culture for the residents of Marysville through planned retention and enhancement of its natural amenities; by judicious control of residential, commercial, and industrial development; and by recognition of the City's role in the region.

LU-18 Pursue the designation of the Marysville-Smokey Point MIC jointly with the City of Arlington in the Snohomish County Countywide Planning Policies and regional designation by Puget Sound Regional Council (PSRC).

LU-32 Permit factory-built and manufactured housing in residential zones subject to the same zoning and development standards of the area in which it is located. [Factory-built housing is factory-assembled parts that are transported to and assembled at the building site. The completed structure is not mobile. A manufactured home is a residential unit comprised of at least two fully enclosed parallel sections on chassis for towing to the point of use and designed to be used with a foundation as a dwelling unit on a year-round basis. A manufactured home uses conventional siding and roofing materials, and roof pitch. A recreational vehicle or motor home is not a manufactured home. A mobile home is a transportable, factory-built home designed and intended to be used as a year-round dwelling, and built prior to the enactment of the Federal Manufactured Housing and Safety Standards Act of 1974.]

LU-45 Allow manufactured home subdivisions in single family residential zones only through utilization of Planned Residential Development (PRD) techniques and only if the subdivision is developed at the same density as the underlying zone.

LU-97 Locate general commercial centers near light industrial and other non-pedestrian oriented areas.

LU-163 Limit industrial development to Urban Growth Areas.

LU-164 Urban level facilities and services must be provided prior to, or concurrent with, development to mitigate the subsequent impacts of industrial developments. These services, include, but are not limited to, sanitary and storm sewers, water, police and fire protection, and roadways.

LU-166 Encourage infilling of vacant parcels and development of currently zoned or designated industrial areas before development occurs in locations distant from current industrial uses.

LU-167 Locate industrial development in compact, well-defined centers within Urban Growth Areas.

LU-168 Require that industrial development sites have good access, adequate public facilities and services, suitable topography and soils, and minimum impact on residential areas.

LU-169 Minimize the impact of industrial developments on adjacent land uses through appropriate landscaping, screening, buffers, graduated land use intensity, and similar methods.

LU-170 Industrial businesses shall provide on-site pretreatment of wastewater to the City sewer system in compliance with applicable standards and regulations.

LU-171 Retain lands intended as future industrial sites in large parcels so they will be viable for industrial development.

LU-172 Locate and design new industrial centers, and improve existing ones to facilitate access and circulation by transit, car/van pools, pedestrians, bicyclists, and other alternative transportation modes.

LU-173 Encourage master planning for new industrial areas on larger parcels of land, including such features as open space, landscaping, integrated signage and traffic control, and overall management and maintenance through covenants or other forms of management.

LU-174 Industrial developments adjacent to wetlands, creek corridors, or steep slopes should be low intensity to allow the flexibility of design necessary to mitigate the impacts of such development on these sensitive areas.

LU-175 Support the development and growth of the Marysville-Smokey Point MIC by supporting a concentrated manufacturing and industrial base and by planning for future growth and infrastructure improvements.

LU-176 Develop appropriate zoning, design review and landscaping regulations so that manufacturing uses within the MIC are buffered from the impacts to residential uses.

LU-177 Ensure at least a minimum of 80% of the property within the MIC is planned and zoned for industrial and manufacturing uses. Compatible non-industrial uses shall be conditioned to mitigate for potential conflicts with current and future land uses.

LU-178 Protect industrial lands from encroachment from incompatible uses and development on adjacent land.

Environmental Element

Policies:

EN-14 Strongly encourage clustered residential, and planned commercial and industrial developments in areas containing unique natural features or determined by site studies to be sensitive to development.

Economic Development Element

Goals: (bulleted rather than numbered in source)

Recognize the need for growth in the City's tax base from industrial and commercial development to provide quality public services and facilities for residents and businesses.

Encourage expansion of commercial and industrial areas within the City and its UGA. Encourage annexation of UGA properties prior to their development.

Prioritize capital facilities funds first for new and improved infrastructure in industrial and commercial areas with vacant land and secondly in areas with redevelopment potential.

Increase employment in industrial and commercial areas to improve the jobs to housing ratio.

Stimulate availability of vacant and in-fill commercial and industrial areas especially in North Marysville and expansion areas north of the City, and in the downtown areas.

Remove and/or reduce regulatory barriers to new commercial and industrial development as well as infill, redevelopment, and rehabilitation of existing employment areas within the City.

Policies:

ED-1 Through its plans, regulations, infrastructure investments, and public services encourage more manufacturing, wholesale, retail, warehouse, distribution, assembling, processing, producer's services, office-using and high technology firms to locate within Marysville.

ED-4 Separate and buffer newer commercial and industrial areas from residential areas. Allow mixed use throughout the downtown area.

ED-5 Examine current zoning categories and regulations for commercial - industrial areas in order to: increase flexibility of the mixture of uses within and among zoning categories; simplify zoning classes so that they are responsive to market forces; specify high quality amenities, design guidelines, and infrastructure to make commercial/industrial areas competitive within the region; make regulatory processes predictable, certain, flexible, and timely; review these land use regulations every five years and solicit input from the development and real estate communities.

ED-11 Prioritize necessary public infrastructure into new employment areas, existing commercial/industrial infill, redevelopment, and rehabilitation of buildings while maintaining adequate infrastructure in existing residential areas.

ED-12 Work actively with the State of Washington, Snohomish County, Tulalip Tribes, City of Arlington, and neighboring communities, school districts, and private property owners to develop joint plans, regulations, and finance necessary infrastructure and utilities in the areas within and to the north of Marysville so that this area becomes a major employment center in Western Washington. Continue to promote development in the Smokey Point Master Plan Area and to pursue a Manufacturing Industrial Center (MIC) with the City of Arlington.

ED-16 Work with local, regional and State agencies such as the Greater Marysville Tulalip Chamber of Commerce, Downtown Marysville Merchants Association, Economic Alliance Snohomish County, Private Industry Council, and Washington State Department of Commerce to market the economic assets and opportunities of Marysville.

Transportation Element

Policies:

T-14 Give funding priority to transportation improvements that serve growth centers and manufacturing and industrial centers, as allocated by the Regional Growth Strategy.

T-16 Make transportation investments that improve economic and living conditions so that industries and skilled workers continue to be retained and attracted to the region.

T-18 Coordinate with the railroads and trucking industry to improve the safety and efficiency of freight movement and reduce the impacts on other travel modes. Coordinate planning with railroad capacity expansion plans and support capacity expansion that is compatible with local plans.

Parks & Recreation

Policies:

PK-9 Accommodate new residential commercial, and industrial development only when required parks, recreation, and open space are available prior to or concurrent with development.

Public Facilities & Services Element

Policies:

PS-1 Accommodate new residential, commercial, and industrial development only when required facilities and services are available prior to or concurrent with development. Concurrency indicates that facilities are available within six years of construction of the new development. Payment of mitigation fees is considered concurrency.

PS-9 Development, residents, businesses, and industries should contribute their fair share toward mitigating identified impacts on public facilities.

Utilities Element

Policies:

UT-1 Accommodate new residential, commercial, and industrial development only when required utilities are available prior to, or concurrent with, development. Concurrency indicates that utilities are available within six years of construction of the new development. Payment of mitigation fees is considered concurrency.

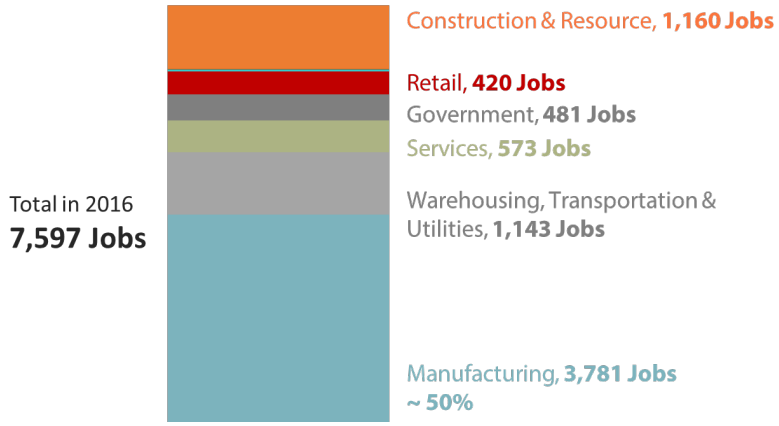
4.0 Employment

4.1 Areawide Conditions

4.1.1 Existing Employment & Industry Sectors

The AMMIC currently includes a total of 7,597 jobs (2016). Industrial sectors (manufacturing, construction, warehousing, transportation, and utilities) account for close to 80% of the total employment in the center.

Exhibit 4-1 Employment by Sector, 2016



Source: Puget Sound Regional Council, 2018; BERK, 2018.

4.1.2 Potential Future Industries

The AMMIC is well located on rail and interstate corridors and within short-haul trucking distance of Canadian distribution networks and ports of entry. In addition, the thriving aerospace industry in Snohomish County and access to facilities at Paine Field, and the Port of Everett, are competitive advantages. Based on these assets, the AMMIC is ideally situated for the following established and emerging industrial sectors:

- **Advanced Manufacturing.** Given the proximity to Boeing's Paine Field, the strength of the aerospace industry in Snohomish County, and growing shortage of land viable for industry, the AMMIC is likely to be an attractive location for advanced aerospace manufacturers and suppliers. The presence of several businesses in the aerospace sector, engaged in materials fabrication, coating, machining, and process engineering, is another benefit.
    - **Light Aircraft Manufacturing.** Growing demand for general aviation from within the region, as well as outside, from places like China, make the Arlington airport a prime

location for business in light aircraft manufacturing. The presence of businesses such as Top Cub Aircraft is an asset. Top Cub Aircraft's new manufacturing facility at the airport includes parts inspection, assembling processes, aircraft maintenance, painting and flight testing.

- **Maritime.** The AMMIC is strategically located and attractive to the maritime industry. Growing costs of doing business in Seattle and proximity to the ports of Anacortes, Bellingham and Everett, are likely to attract maritime businesses to the area.
- **Food Processing.** In addition to proximity to the aerospace industry, the AMMIC enjoys good access to the many Western Washington food processors. The AMMIC also has easy access to the Port of Everett and its connections to the fisheries of Alaska, British Columbia, and the Pacific Northwest, as well as the Idaho aquaculture community. Given these factors, there is strong potential for the AMMIC to attract food processing businesses.
- **Mass Timber.** A number of local communities in the region are exploring the potential of high-value timber products, such as cross-laminated timber (CLT), a new engineered wood product that is part of a larger category of products called "mass timber." Given its location and the burgeoning interest and demand for these products, the AMMIC is well positioned to attract manufacturing or related businesses in the mass timber industry.

4.2 Key Findings & Implications for Plan

The AMMIC is mostly in industrial use and contains nearly 7,597 jobs. A market study in 2016 showed there was market potential for job growth in the AMMIC. Businesses in advanced manufacturing, especially related to aerospace, food processing and mass timber production are likely to find the AMMIC to be an attractive location and contribute to job growth. Many of these businesses can be attracted to the area through appropriate investments in infrastructure, and workforce development, as well as appropriate zoning and design standards to ensure industrial uses continue to be viable.

5.0 Transportation

This chapter provides an understanding of the transportation system within the Arlington-Marysville Manufacturing Industrial Center (AMMIC), how it connects to the local and regional system as well as key implications for the subarea plan.

5.1 Transportation Policies

Both the Cities of Arlington and Marysville have transportation policies, which impact the AMMIC subarea. The policies in place are generally consistent between the two cities with both supporting development of the AMMIC while minimizing impacts to other transportation system users. The main policies impacting the AMMIC are summarized below.

- Support development and operations within the AMMIC.
- Develop a road network to facilitate access and circulation by truck, transit, car/van pools, pedestrians, bicyclists, and other alternative transportation modes.

5.2 Areawide Conditions

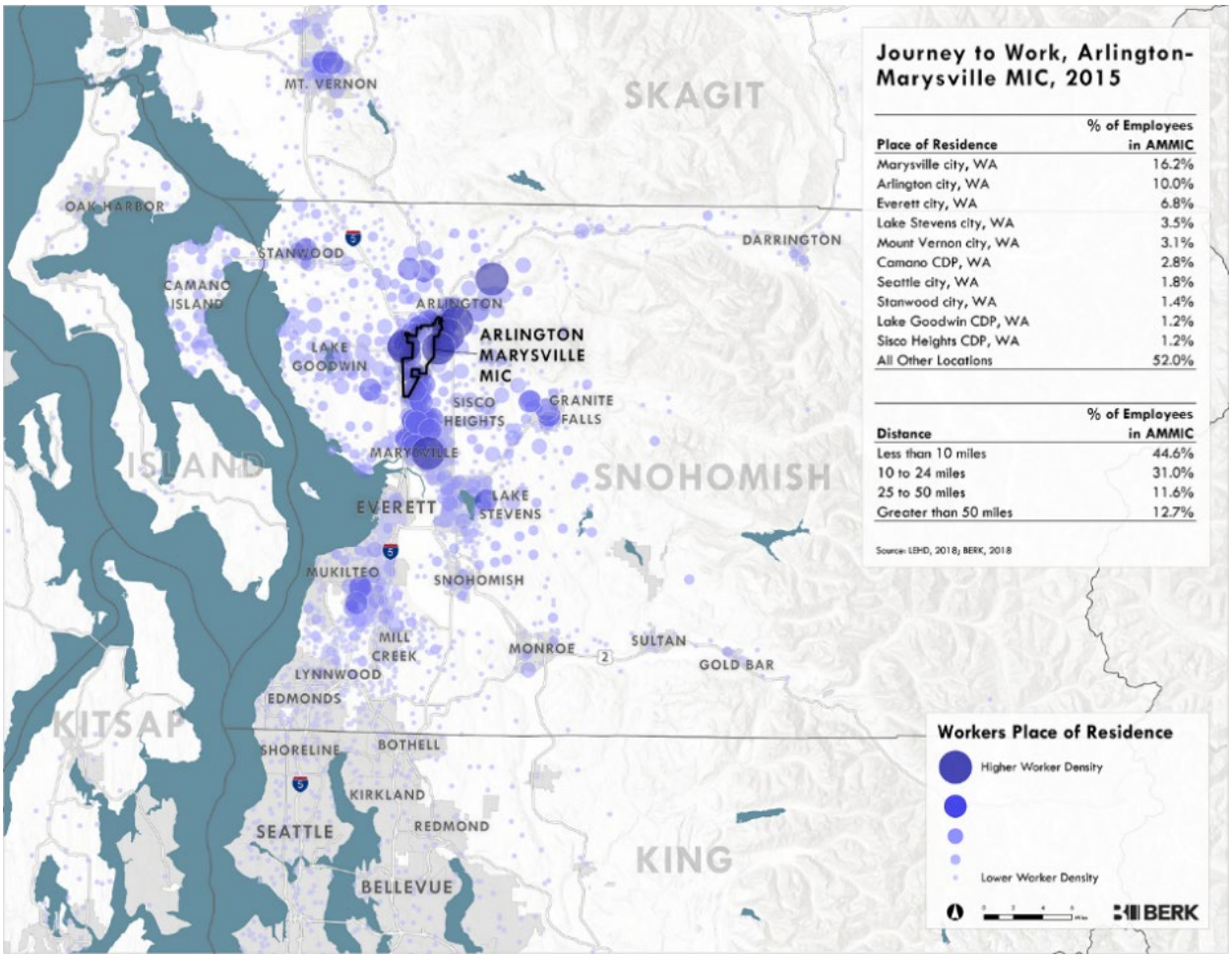
5.2.1 Travel Characteristics

The travel characteristics of workers in the MIC subarea were assessed using 2015 US Census data via OnTheMap.[1]

Exhibit 5-1 below shows the percentages of where workers of the MIC live.

[1] https://onthemap.ces.census.gov/

Exhibit 5-1 2015 Areas Where MIC Workers Live[1]



Source: Census on the Map, 2018; BERK, 2018.

5.2.2 Roadway Network

Roadway Characteristics

The AMMIC is served by several major highways and a number of arterial and local streets. The key roadways are described below.

Interstate 5 (I-5) borders the west side of the AMMIC in North Marysville, connecting between Marysville to the south and Mount Vernon to the north. It is a six-lane freeway with a posted speed limit of 70 mph north of 172nd Street NE (SR 531) and 60 mph to the south. Existing access to the AMMIC is primarily via the ramps at SR 531/172nd Street NE.

State Route 9 (SR 9) runs north/south east of the AMMIC connecting between Lake McMurray to the north and Snohomish to the south. It is a two-lane facility with a posted speed limit of 55

mph. Access to the AMMIC from SR 9 is provided via at-grade intersections with SR 531/172nd Street NE and Kent Prairie Road.

172nd Street NE (SR 531) runs east/west connecting I-5 to the west and SR 9 to the east, bisecting the AMMIC. It is primarily a two-lane facility with a posted speed limit of 35 mph.

67th Avenue NE is a classified as a minor arterial by the City of Arlington running north/south along the eastern portion of the AMMIC. The roadway generally has a posted speed limit of 50 mph and a predominately two-lane cross section.

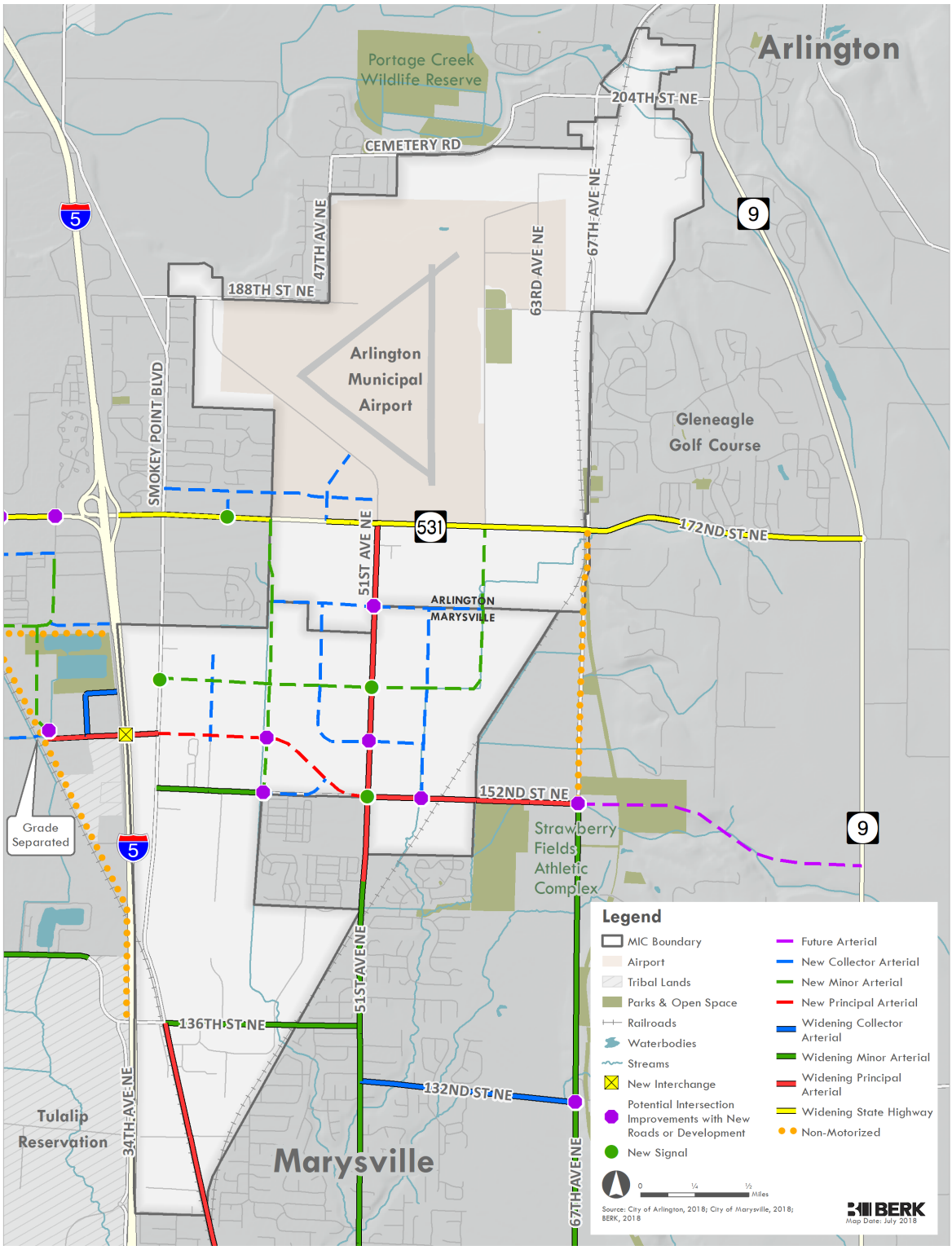
Smokey Point Boulevard/State Avenue runs north/south along the western side of the AMMIC. It is classified as a principal arterial by the City of Marysville with a posted speed limit of 40 mph. In the study area the roadway typically has a five-lane cross section with four travel lanes and a central two-way left-turn lane. North of SR 531/172nd Street NE, Smokey Point Boulevard narrows to two lanes.

51st Avenue NE/Airport Boulevard is a north/south roadway that runs through the center of the study area and west of the airport in Arlington. It is classified as an arterial north of SR 531 by the City of Arlington. The federal classification of 51st Avenue NE a major collector south of SR 531. The City of Marysville classifies 51st Avenue NE as a minor arterial south of SR 531. South of SR 531 the roadway has a posted speed limit of 40 mph and a two-lane cross section, and 25 mph north of SR 531 with a three-lane cross section.

Planned Roadway Improvements

Several transportation improvement projects are currently planned in and around the subarea to increase capacity, reduce conflicts with the railroad, and improve connectivity. As the area develops arterial, collector, and local roads will be provided to establish a quarter-mile grid road network, where possible. These projects are shown in Exhibit 5-2. Key projects for the AMMIC are discussed below.

Exhibit 5-2 Planned Improvements



Source: City of Arlington, 2018; City of Marysville, 2018; Transpo Group, 2018.

- **I-5 Interchange at 156th Street NE**

  This project is part of the Connecting Washington funding package and includes construction of a new I-5 interchange at 156th Street NE. This new interchange relieves some of the traffic pressures at 172nd Street NE, which is currently the main interchange to access the AMMIC. The I-5/156th Street interchange would not be constrained by the rail line so freight traffic will not be impacted by the rail traffic.

- **156th/152nd Street Connector**

  The City of Marysville is planning to extend 156th Street NE east of I-5 from Smokey Point Boulevard to 51st Avenue NE/152nd Street NE. A 4/5 lane arterial would be constructed including sidewalks and a multi-use trail. The project includes potentially a new connector to 152nd Street NE to the west at about 47th Avenue NE. There is also an extension of 156th Street NE west of I-5, which would provide a grade separated crossing of the mailine tracks west of I-5.

- **172nd Street NE (SR 531) Widening Project (43rd Avenue NE to 67th Avenue NE)**

  This project is part of the Connecting Washington funding package and includes widening SR 531 between 43rd Avenue NE and 67th Avenue NE from a two- to a four-lane roadway. Roundabouts would be installed at the intersections of 43rd Avenue NE, 51st Avenue NE, 59th Avenue NE, and 67th Avenue NE replacing the currently signalized traffic control.

- **SR 531 Rehabilitation & 40th Avenue NE Signalization**

  This project would include roadway and corridor improvements on SR 531 (172nd Street NE) from 43rd Avenue NE to Smokey Point Boulevard, eliminate left turn pockets, and install medians. Improvements to the pedestrian and bicycle facilities would also be completed. A traffic signal would be constructed at the 40th Avenue NE/SR 531 (172nd Street NE) intersection.

- **Construction of 173rd Street NE (Phases 1-3A)**

  The three phases of this project would construct a new roadway (173rd Street NE) from Smokey Point Boulevard to 51st Avenue NE.

- **Construction of 47th Avenue NE**

  This project would construct a new two-lane roadway (47th Avenue NE) connecting between SR 531 (172nd Street NE) and Airport Boulevard.

- **Construction of 160th Street NE (Smokey Point Boulevard to 51st Avenue NE)**

  Under this project, a new three-lane roadway with pedestrian and bicycle facilities between Smokey Point Boulevard and 51st Avenue NE would be constructed.

- **51st Avenue NE Widening (88th Street NE to SR 531)**

  The City of Marysville is planning to widen 51st Avenue NE between 88th Avenue NE and SR 531. The roadway would be widened in several phases to reconstruct the two-lane road to a three-lane cross-section with curb, gutter, and sidewalks as well as bicycle lanes.

- **152nd Street NE Widening (51st Avenue NE to 67th Avenue NE)**

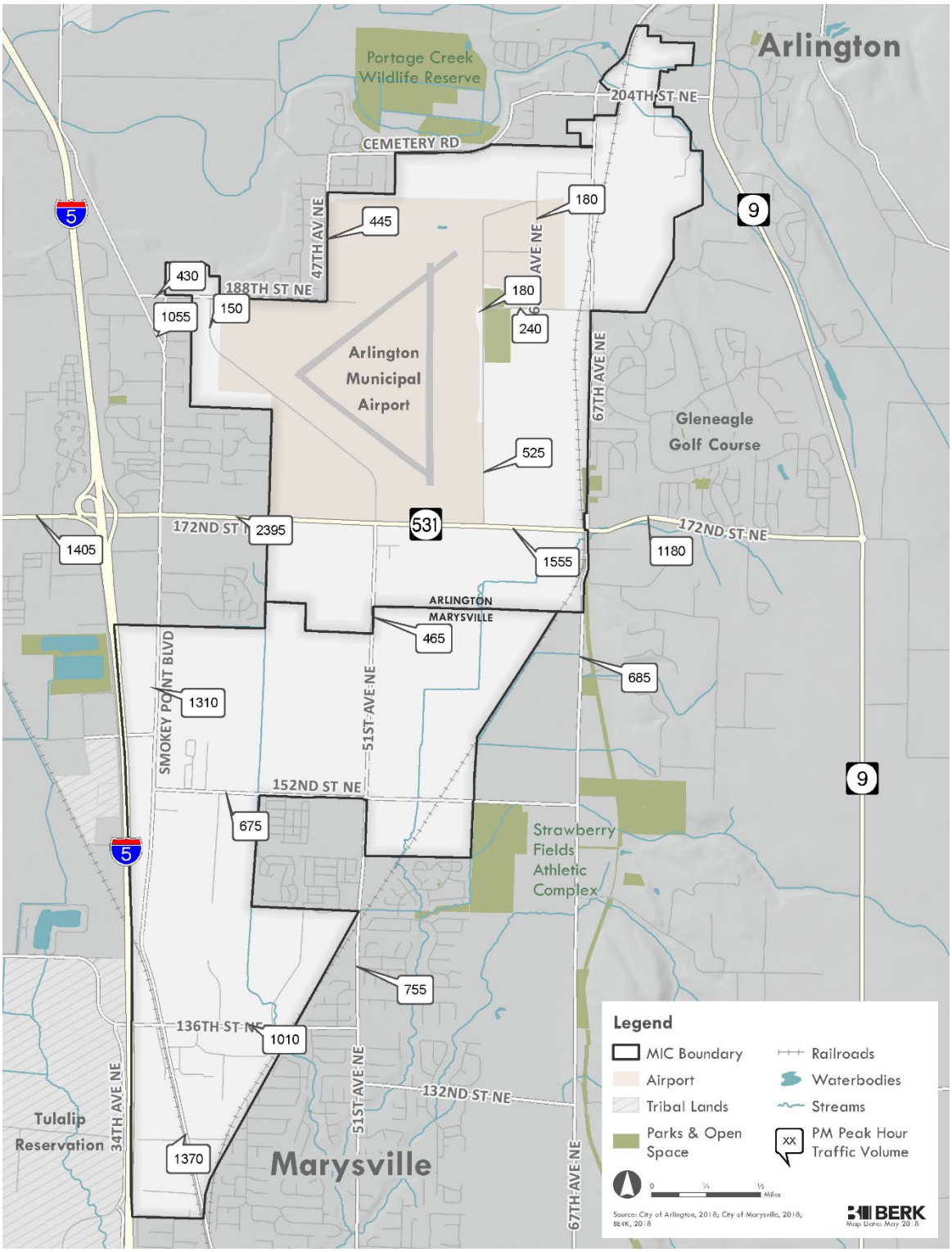
  This project would widen the existing two-lane roadway to a three-lane roadway with curb, gutter, and sidewalks. Improvements to the existing at-grade railroad crossing could be implemented as part of this proposed project. In addition, a long-term proposal is to extend 152nd Street NE to SR 9.

Traffic Volumes

Weekday PM peak hour traffic volumes were collected from various sources including both the Arlington and Marysville Comprehensive Plans. The weekday PM peak hour (one hour between 4 and 6 p.m.) is typically used for evaluating transportation system needs as it represents the highest travel activity experienced during the day. Weekday PM peak hour volumes in the AMMIC are shown in Exhibit 5-3.

As shown in Exhibit 5-3, the highest volume of traffic in the AMMIC is along 172nd Street NE (SR 531) with over 1,500 vehicles during the weekday PM peak hour within the AMMIC. Other roadways that carry a large amount of traffic are Smokey Point Boulevard with approximately 1,300 vehicles and 136th Street NE with 1,000 vehicles within the AMMIC during the weekday PM peak hour.

Exhibit 5-3 Existing Weekday PM Peak Hour Traffic Volumes



Source: City of Arlington, 2018; City of Marysville, 2018; Transpo Group, 2018.

Traffic Operations

Intersection traffic operations at intersections in the study area were conducted as part of the Arlington and Marysville Transportation Plans. Methodologies developed in the *Highway Capacity Manual (HCM)* were used to evaluate the performance of signalized and stop-controlled intersection with the Synchro software. The weekday PM peak hour traffic volumes were used as the basis for the LOS assessment.

At signalized and all-way stop-controlled intersections, LOS is measured in average control delay per vehicle and is typically reported using the intersection delay. At stop-sign-controlled intersections, LOS is measured in delay per vehicle and is reported for the worst movement. Traffic operations for an intersection can be described with the same range of levels of service as roadways (LOS A through F).

The LOS standards for the AMMIC study area are described as follows:

City of Marysville LOS Standards.

- **LOS E "mitigated"** for arterial-arterial or arterial-collector intersections along the following corridors (LOS E "mitigated" means that the congestion should be mitigated through improvements, transit, ridesharing, or other travel modes when the intersection falls below LOS E).
  - SR 529/State Avenue/Smokey Point Boulevard between the south City limits and the North City limits.
  - 4th Street/64th Street NE (SR 528) between I-5 and SR 9.
- **LOS D** for all other arterial-arterial or arterial-collector intersections along City corridors.

WSDOT. LOS D for HSS facilities in urban areas and LOS C for HSS facilities in rural areas.

Snohomish County LOS Standards. Unlike neighboring jurisdictions, Snohomish County LOS standards are defined based on arterial operations and not intersection LOS. Level of service along key arterials is measured by calculating corridor travel speeds. LOS standards for key arterials are defined by Snohomish County based on area type and arterial classification. In rural areas LOS standards range from LOS C to LOS E depending on the roadway type. In urban areas LOS E is considered acceptable.

City of Arlington LOS Standards. The City of Arlington has adopted LOS D or better for arterials and collectors. In addition, the LOS D standard applies to local roads that primarily serve its central business district or industrial areas. The City of Arlington further recognizes and adopts the most current LOS standard along state highways, as described above.

Exhibit 5-4 below summarizes the most current (2011 for Arlington, 2014 for Marysville) existing weekday PM peak hour LOS at MIC study intersections.

Exhibit 5-4 Existing Intersection Level of Service (LOS)

INTERSECTION	JURISDICTION	CONTROL TYPE	LOS[1]	DELAY (SEC)[2]
Smokey Point Blvd/188th Street NE	Arlington	TWSC	F	**50.1**
67th Ave NE/188th Street NE	Arlington	TWSC	C	**–3**
I-5 SB Ramps/172nd St NE (SR 531)	WSDOT	Signal	A	**7**
I-5 NB Ramps/172nd St NE (SR 531)	WSDOT	Signal	D	**384**
Smokey Point Blvd/172nd St NE (SR 531)	Arlington	Signal	E	**64**
43rd Ave NE/172nd St NE (SR 531)	Arlington	Signal	D	**53**
51st Ave NE/172nd St NE (SR 531)	Arlington	Signal	C	**26**
67th Ave NE/172nd St NE (SR 531)	Arlington	Signal	C	**23**
Smokey Point Blvd/156th St NE	Marysville	Signal	A	**6**
Smokey Point Blvd/152nd St NE	**Marysville**	**Signal**	**C**	**21**

Notes:
1. Level of service as defined by Highway Capacity Manual 2010 (Transportation Research Board, 2010)
2. Average delay per vehicle in seconds.
3. The Arlington Transportation Element only provided LOS values and no specific delay was identified.
4. Due to limitations in the HCM2010 methodology, this intersection was evaluated with the Highway Capacity Manual 2000 methodology (Transportation Research Board, 2000).

As shown, all of the study intersections currently operate at LOS D or better except for the Smokey Point Boulevard/172nd Street NE intersection. This intersection operates at LOS E during the weekday PM peak hour. As noted previously, along both Smokey Point Boulevard and 172nd Street NE (SR 531). In addition, there are plans to provide additional east-west and north-south connections resulting in a gridded road network that would shift some traffic from these routes to parallel corridors.

Traffic Safety

Collisions were reviewed as part of the Arlington and Marysville Comprehensive Plans. According to the City of Arlington Comprehensive Plan, between the years of January 1, 2006 and December 31, 2010 the following intersections had five or more accidents over the 5-year period in the study area:

- 43rd Avenue NE/172nd Street NE (SR 531)
- 51st Avenue NE/172nd Street NE (SR 531)
- 67th Avenue NE/172nd Street NE (SR 531)
- 67th Avenue NE/188th Street NE
- 59th Avenue NE/172nd Street NE (SR 531)

As described previously, improvements have been identified along SR 531 and at key intersections. Safety would be considered with these improvements. The City of Marysville reports collisions based on collisions per million entering vehicles (MEV). Typically, any intersection with a collision rate greater than one collision per MEV should be monitored. There were no reported intersections with an MEV over one in the study area.

5.2.3 Freight Network

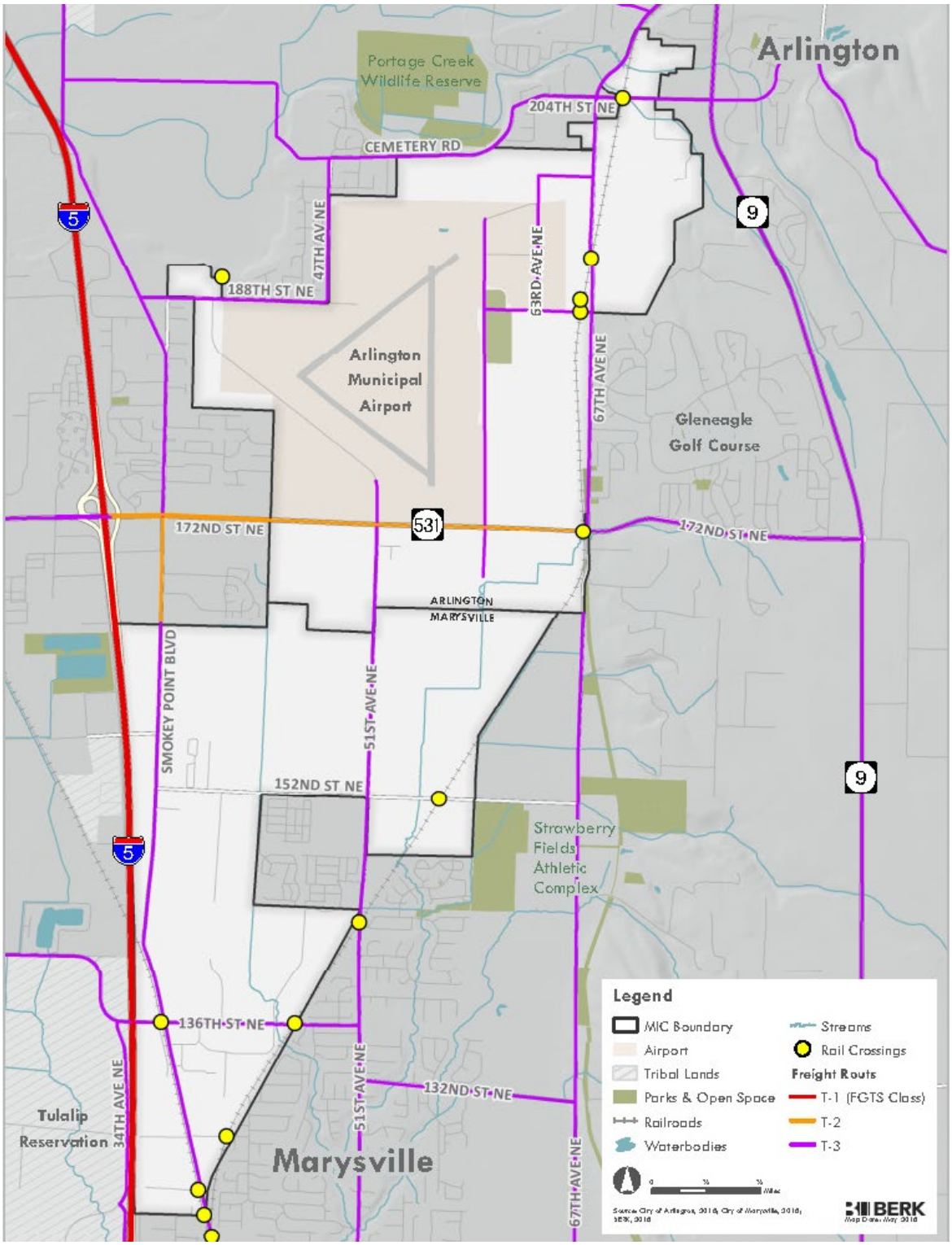
As a manufacturing and industrial center, the AMMIC is rooted in freight traffic. There are a number of employers in the area generating truck traffic, as well as two railroads both operated by the Burlington Northern & Santa Fe (BNSF) Railroad. One BNSF line runs near the I-5 corridor and carries both freight and passenger rail traffic. Passenger rail is operated by Amtrak. This line runs from Vancouver, WA to Vancouver, B.C. with the closest passenger stations in Everett and Stanwood. The second BNSF line is located on the east side of the AMMIC boundary and runs from the City of Arlington connecting with the I-5 mainline track at approximately 116th Street NE in Marysville.

The majority of rail crossings are at-grade in the AMMIC. These at-grade crossings include west of the 172nd Street NE (SR 531)/67th Avenue NE intersection, along 152nd Street NE east of 51st Avenue NE, west of the Smokey Point Boulevard/136th Street NE intersection, and along 51st Avenue NE south of 144th Avenue NE. At-grade crossings impact the roadway system within the AMMIC and access to the AMMIC from both Arlington and Marysville. The presence of trains delays freight movement and increases congestion and safety issues at the crossings. As noted previously, there is a planned improvement to provide a grade separate interchange at I-5 and 156th Street NE, which would improve freight access to the AMMIC.

The Washington State Freight and Goods Transportation System (FGTS) is used to classify state highways, county roads, and city streets according to average annual gross truck tonnage they carry as directed by RCW 47.05.021. The FGTS establishes funding eligibility for the Freight Mobility Strategic Investment Board (FMSIB) grants and supports designations of HSS (Highways of Statewide Significance) corridors, pavement upgrades, traffic congestion management, and other state investment decisions. The FGTS classifies roadways using five freight tonnage classifications, T-1 through T-5. Routes classified as T-1 or T-2 are considered strategic freight corridors and are given priority for receiving FMSIB funding. The classifications are as follows:

- **T-1:** Over 10,000,000 annual gross tonnage (over approximately 800 trucks per day).
- **T-2:** 4,000,000 to 10,000,000 annual gross tonnage (approximately 320 to 800 trucks per day).
- **T-3:** 300,000 to 4,000,000 annual gross tonnage (approximately 24 to 320 trucks per day).
- **T-4:** 100,000 to 300,000 annual gross tonnage (approximately 8 to 24 trucks per day).
- **T-5:** Over 20,000 gross tonnage in a 60-day period. Exhibit 5-5 shows roadways within the MIC classified as T-1, T-2, and T-3. The roadways with the highest classification, and heaviest amount of truck traffic, are I-5, SR 531, 67th Avenue NE, and Smokey Point Boulevard.

Exhibit 5-5 Existing Freight Corridors



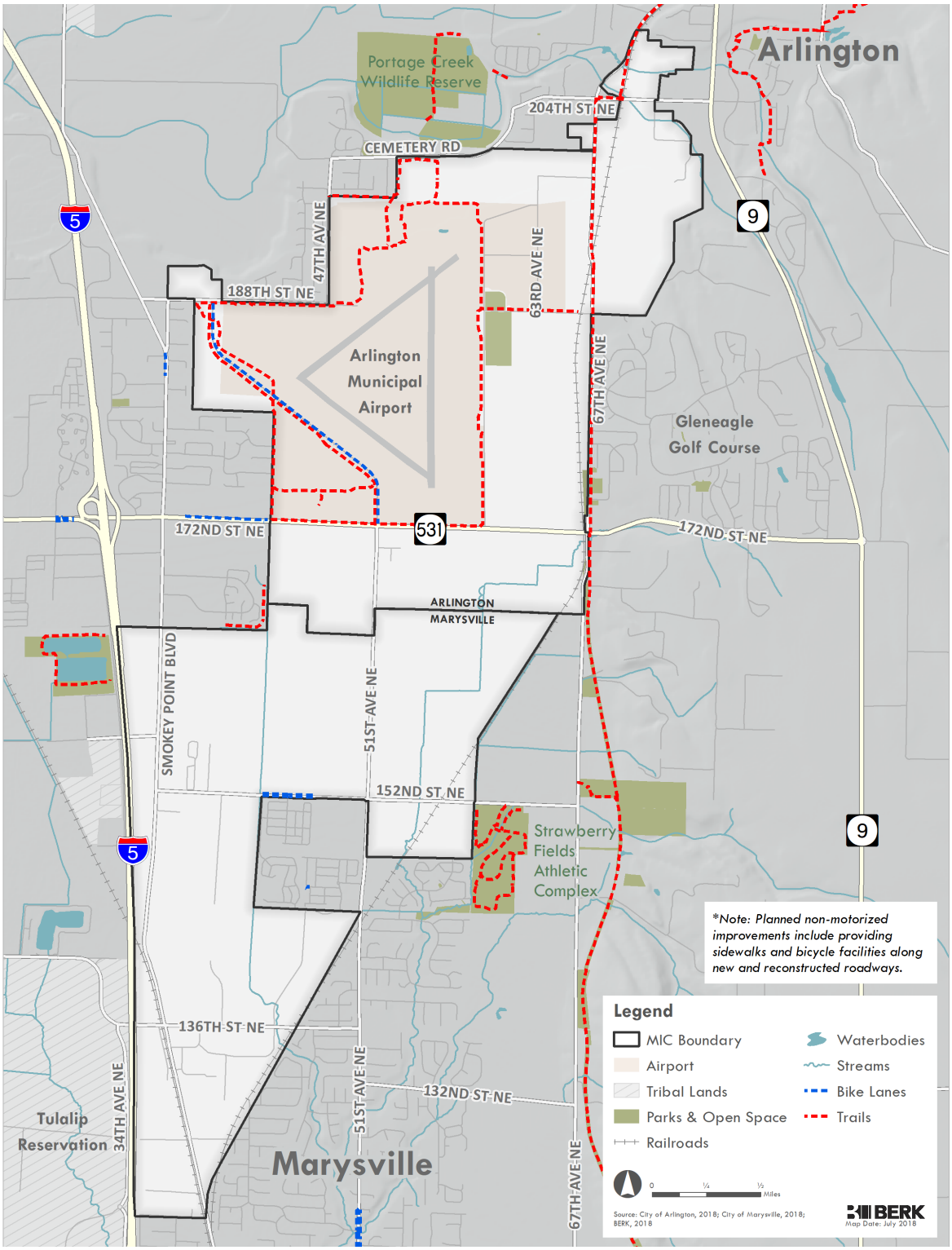
Source: City of Arlington, 2018; City of Marysville, 2018; Transpo Group, 2018.

5.2.4 Non-Motorized Facilities

Within the AMMIC, sidewalks are primarily provided along Smokey Point Boulevard, except from 173 Street NE to SR 530. Sidewalks are present on 51st Avenue NE/Airport Boulevard north of SR 531. Bike lanes are also provided along 51st Avenue NE/Airport Boulevard north of SR 531. As mentioned previously, a number of planned improvement are proposed which would include construction of sidewalk and bike facilities.

Two multi-use trails exist in the study area and include the Centennial Trail and the Airport Trail. The Centennial Trail runs along the eastern side of the AMMIC and is approximately 23 miles long connecting the Cities of Snohomish, Lake Stevens, and Arlington. The path is a 10-foot wide paved trail used for walking, bicycling, hiking, and horseback riding. There is limited connectivity between Marysville non-motorized facilities and the Centennial Trail. The Airport Trail an unimproved walking path which runs around the Arlington Airport. Exhibit 5-6 shows the sidewalks in the study area and the bike facilities in the study area as well as planned non-motorized improvements.

Exhibit 5-6 Existing Non-Motorized Facilities



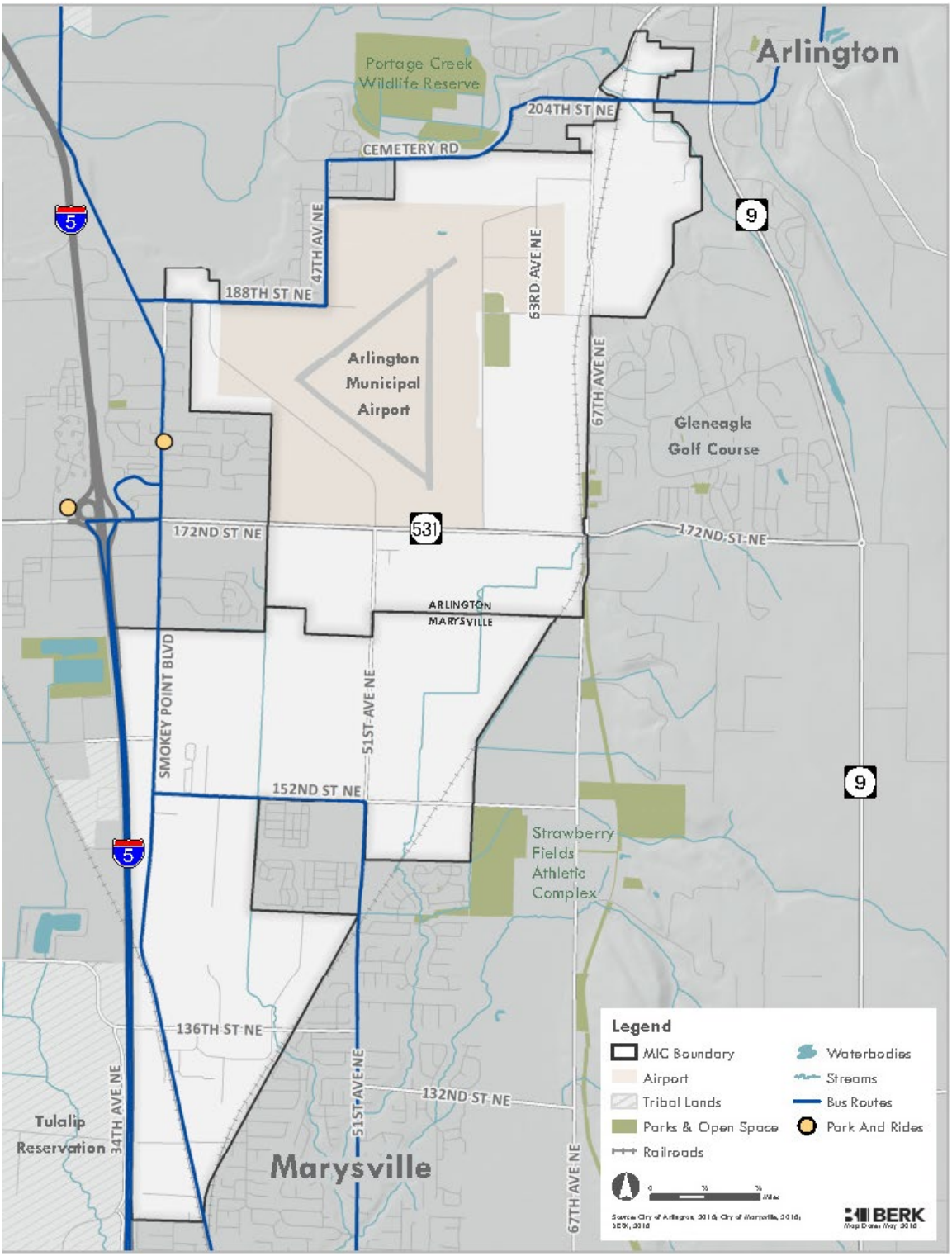
Source: City of Arlington, 2018; City of Marysville, 2018; Transpo Group, 2018.

5.2.5 Transit Network

Exhibit 5-7 illustrates the transit service in the study area. Community Transit provides service in the AMMIC study area via two routes which primarily operate along Smokey Point Boulevard and 51st Avenue NE. Access to additional routes is provided at the Smokey Point Transit Center. Routes 201 and 202 provide service between the Smokey Point transit center in Arlington and Lynnwood. During the weekdays, service for both routes is provided between approximately 4:40 a.m. and 11:00 p.m. Additional weekend service is also provided.

There are three park and ride facilities located near or along the periphery of the AMMIC. The Arlington Park and Ride is located west of SR 9, north of W 4th Street. There is also a park and ride facility in Marysville located north of SR 531 and west of I-5. In addition, the Smokey Point Transit center is located north of SR 531 and west of Smokey Point Boulevard. This transit center provides access to six Community Transit routes. Community transit has long-range plans to provide Swift, it's bus rapid transit, along Smokey Point Boulevard with a stop potential stop at the I-5/156th new interchange and Smokey Point Transit Center.

Exhibit 5-7 Existing Transit Service



Source: Community Transit, 2018; Transpo Group, 2018.

5.3 Key Findings & Implications for Plan

Freight and auto travel to and from the AMMIC is facilitated primarily by 172nd Street NE (SR 531), 51st Avenue NE, 67th Avenue NE and Smokey Point Boulevard. The area currently has limited connectivity and the operations of the transportation system are impacted by conflicts between rail, vehicular, and non-motorized traffic due to conflicts at-grade crossings. Planned transportation improvements in and around the AMMIC will increase capacity, reduce conflicts with the railroad, and improve connectivity. This includes widening of 172nd Street NE between 43rd and 67th Avenues and the new I-5/156th Street NE interchange and extension of 156th Street NE , which will increase capacity in the area.

Approximately 45% of AMMIC employees live within less than 10 miles of the subarea and approximately 30% live within 24 miles of the subarea. Employees living proximate to the AMMIC makes non-motorized and transit modes viable alternatives. Key bicycle routes include the Airport and Centennial Trails, which are not connected to each other and the Centennial Trail does not connect directly to the AMMIC. There are opportunities to connect these trails and improve the non-motorized facilities within the AMMIC as existing and new roadway improvements are completed. The Cities will consider bicycle and pedestrian facilities with improvements to existing roads and constructing new roads. In addition, transit service to the AMMIC area is currently limited and strategies will need to be explored to help reduce reliance on single occupant vehicles (SOV). Improvements may consider additional or improved service such as bus rapid transit and connectivity to park and ride facilities.

6.0 Public Services & Utilities

6.1 Utilities

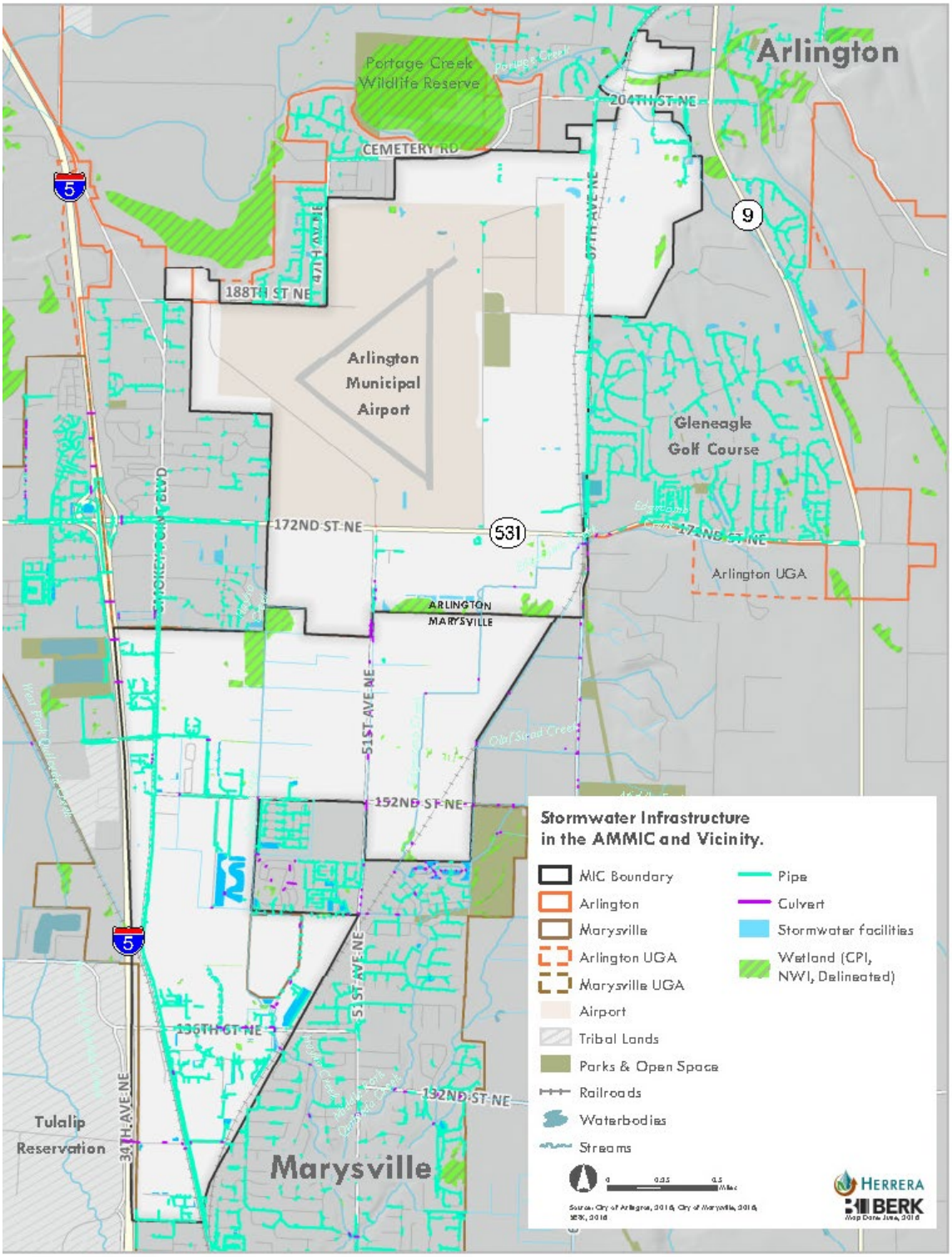
This section addresses the current utility conditions within the AMMIC including water, wastewater, and stormwater, as well as existing plans for system upgrades or expansions within the Study Area. The information contained in this summary is based on a review of the six documents listed below and discussions with City staff. Maps of each system are provided in Exhibit 6-1 (Stormwater), and Exhibit 6-4 (Drinking Water).

- **Wastewater**
  - 2017 Amendment to 2015 Comprehensive Wastewater Plan, City of Arlington
  - 2011 Sewer Comprehensive Plan, City of Marysville
- **Water**
  - 2017 Amendment to 2015 Comprehensive Water System Plan, City of Arlington
  - City of Marysville Water System Plan, April 2017
- **Stormwater**
  - City of Arlington Final Comprehensive Stormwater Plan, October 2010
  - City of Marysville Surface Water Comprehensive Plan Update, December 2016

6.1.1 Stormwater Utility

The Public Works Departments in the Cities of Arlington and Marysville are responsible for the operation and maintenance of the City's stormwater collection and conveyance system within the Study Area. See Exhibit 6-1. Stormwater is captured by catch basins distributed across both cities and conveyed through a network of open ditches, pipes, catch basins, culverts, and several different types of stormwater management facilities.

Exhibit 6-1 Stormwater Infrastructure, AMMIC and Vicinity



Source: City of Arlington, 2018; City of Marysville, 2018; BERK, 2018.

Arlington

The stormwater infrastructure within the Arlington portion of the MIC is listed in Exhibit 6-2.

Exhibit 6-2 Stormwater Infrastructure, Arlington Portion

CITY	ARLINGTON
Owner	City of Arlington
Pipe (LF)	21,800
Catch Basins	660
Stormwater Facilities	33

The northern portion of the City of Arlington portion of the AMMIC drains towards the Stillaguamish River while the rest drains towards Quilceda Creek via ditches, Hayho Creek, Westphal Creek, and Edgecomb Creek. Many capital projects have been completed in the area in the last 10 years to prepare for increased development, including culvert replacement projects to address flooding and fish passage concerns. Additional CIP projects through 2035 include monitoring projects and planning for and constructing additional regional stormwater management facilities (Arlington 2010). The City has identified some potential regional facility locations within the AMMIC, but more work is needed to define the stormwater management needs associated with redevelopment and the City may consider those needs during the Stormwater Comprehensive Plan update, which is just getting underway.

Marysville

The stormwater infrastructure within the Marysville portion of the AMMIC is listed in Exhibit 6-3.

Exhibit 6-3 Stormwater Infrastructure, Marysville Portion

CITY	MARYSVILLE
Owner	City of Marysville
Pipe (LF)	87,500
Catch Basins	960
Stormwater Facilities	80

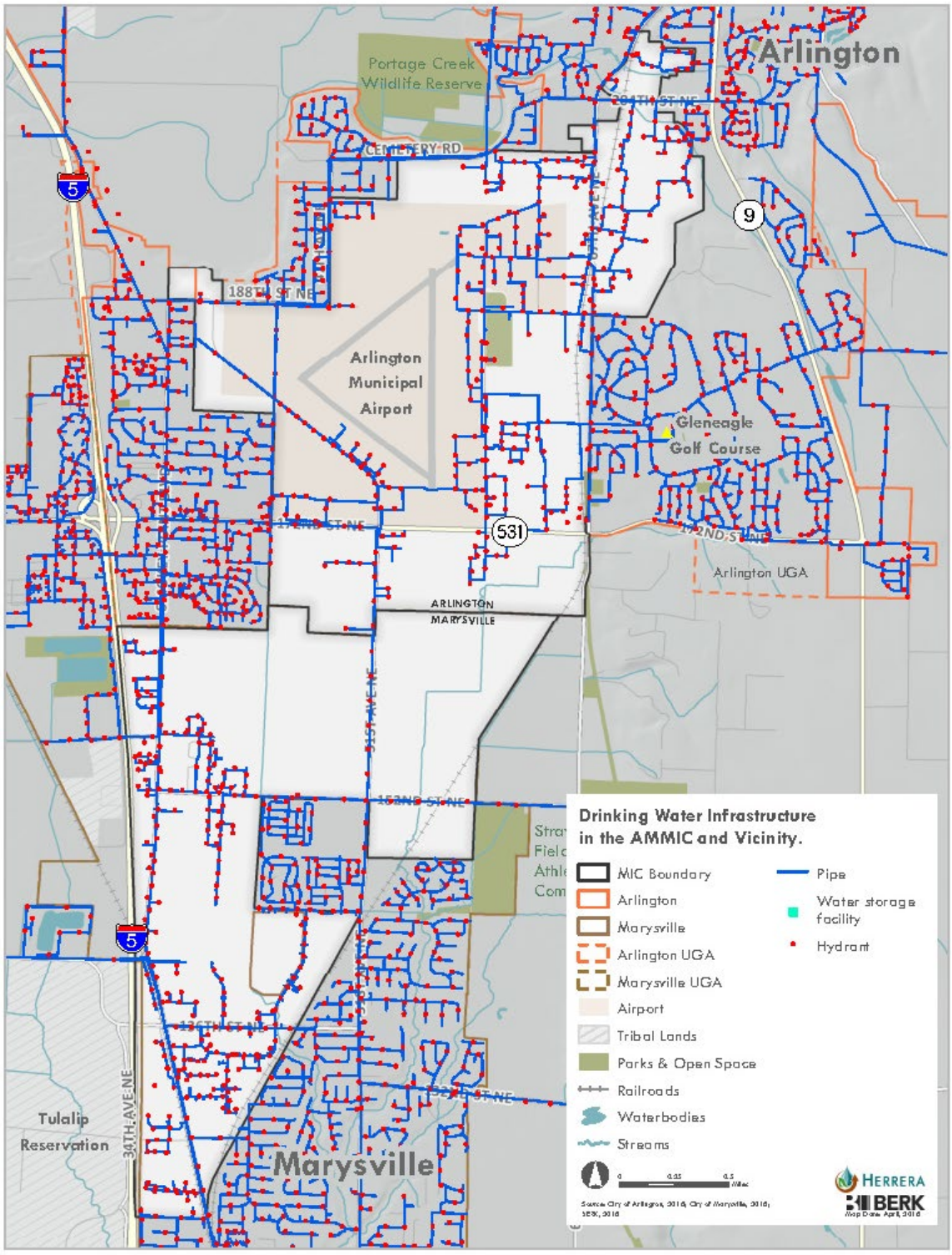
The City of Marysville has completed construction of two regional stormwater facilities in the Marysville portion of the AMMIC that provide flow control and enhanced treatment for over 100 acres of commercial land, including some areas of potential future development, north of the pond locations near 40th Avenue NE and 152nd Street NE. CIP projects planned within the Marysville portion through 2035 include installation of fish passable culverts, wetland restoration, and installation of additional stormwater conveyance and detention facilities to accommodate future high-density commercial and industrial development in the Smokey Point

area of the Marysville portion of the AMMIC. The City is interested in planning stormwater conveyance and regional facilities in the eastern portion of the Marysville portion when warranted by redevelopment. The conditions in the Marysville portion of the MIC are not conducive of regional scale infiltration facilities, so low impact development stormwater management will need to be evaluated on a site-by-site scale or using dispersed facilities to meet the requirements of the stormwater manual.

6.1.2 Drinking Water

Potable water is provided by Arlington and Marysville to the AMMIC. The City of Marysville provides water service for the Marysville portion of the AMMIC and the Smokey Point Neighborhood within the southwest corner of the Arlington portion. The City of Arlington services the remaining area of the Arlington portion of the AMMIC. See Exhibit 6-4.

Exhibit 6-4 Drinking Water System Infrastructure



Source: City of Arlington, 2018; City of Marysville, 2018; BERK, 2018.

Arlington

The water infrastructure within the Arlington portion of the AMMIC is listed in Exhibit 6-5.

Exhibit 6-5 Water Infrastructure, Arlington Portion

CITY	ARLINGTON	
Owner	City of Arlington	City of Marysville
Pipe (LF)	135,900	9,000
Pumps	0	0
Hydrants	304	24

The Arlington portion's water is supplied by groundwater from two wellfields (Arlington 2017b). The City has sufficient water supply and secured wholesale supplies to meet demand beyond 2035, and the City is pursuing additional water rights to meet long term demands. The system was recently extended for the Airport Business Park. Planned improvements in the AMMIC through 2035 include extension of the system into the undeveloped area of the Arlington portion south of 172nd Street, as well as system upgrades to serve redevelopment.

Marysville

The water infrastructure within the Marysville portion of the AMMIC is listed in Exhibit 6-6.

Exhibit 6-6 Water Infrastructure, Marysville Portion

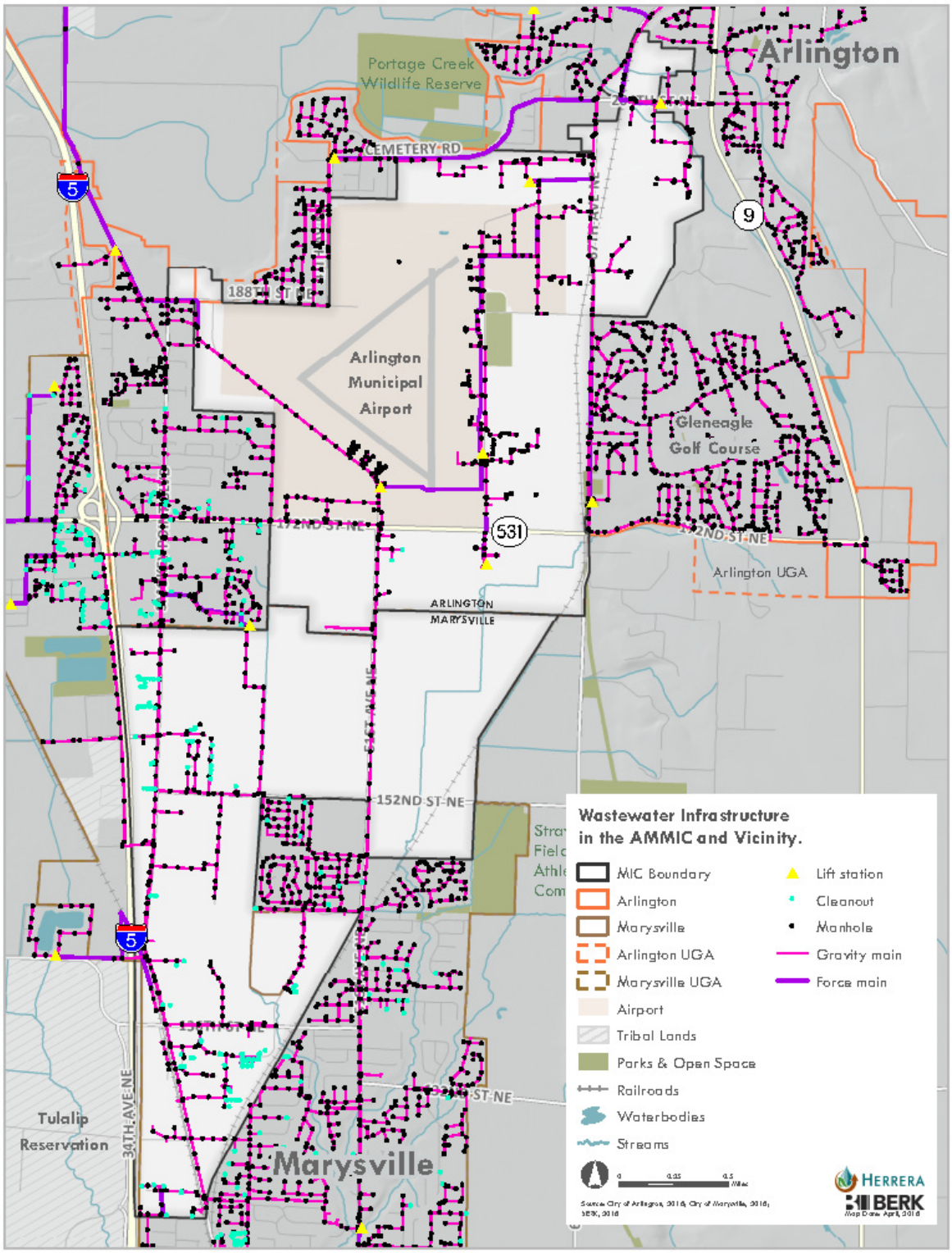
CITY	MARYSVILLE
Owner	City of Marysville
Pipe (LF)	121,200
Pumps	0
Hydrants	256

The Marysville portion's water is supplied by groundwater wells and includes seven water service areas. Though demand is expected to increase, Marysville expects to meet demand requirements with the system until at least 2035. Planned improvements to the AMMIC through 2035 include replacing cast iron and asbestos cement water mains with ductile iron (Marysville 2017). The City is developing a water supply operational strategy that may lead to additional planned projects related to the AMMIC supply.

6.1.3 Wastewater

The City of Marysville provides wastewater service for the Marysville portion of the AMMIC and the Smokey Point Neighborhood within the southwest corner of the Arlington portion of the MIC. The City of Arlington services the remaining area of the Arlington portion of the AMMIC. Each City has its own collection and conveyance system and treatment facility.

Exhibit 6-7 Wastewater Infrastructure



Source: City of Arlington, 2018; City of Marysville, 2018; BERK, 2018.

Arlington

The wastewater infrastructure within the Arlington portion of the MIC is listed in Exhibit 6-8.

Exhibit 6-8 Wastewater Infrastructure, Arlington Portion

CITY	ARLINGTON	
Owner	City of Arlington	City of Marysville
Force Main (LF)	25,900	0
Gravity Main (LF)	44,500	7,000
Lift Stations	4	0
Manholes	350	19

Wastewater flowing out of the Arlington portion to the City of Arlington system flows to a single water reclamation facility (WRF), which discharges to the Stillaguamish River. Expansion of the membrane bioreactor (MBR) component of the WRF is planned by 2035 and the City has accounted for MIC growth in evaluating its wastewater system requirements. The City recently expanded its wastewater service area to include the portion Arlington portion that is south of 172nd Street and east of 51st Avenue.

Overall, the existing system has been extended through the developed areas of the Arlington portion and Lift Station 2 was upgraded in 2017 to serve increased demand related to existing and future development. Capacity improvements are scheduled for four other lift stations over the next 20 years and other conveyance improvements will be needed to accommodate increased demand related to redevelopment. Capital projects from 2017 to 2035 include extension of the system into the undeveloped parcels of the Arlington portion south of 172nd Street, operational improvements, refurbishment of existing facilities, and flow monitoring projects (Arlington 2017a).

Marysville

The wastewater infrastructure within the Marysville portion of the MIC is listed in

Exhibit 6-9.

Exhibit 6-9 Wastewater Infrastructure, Marysville Portion

CITY	MARYSVILLE
Owner	City of Marysville
Force Main (LF)	3,800
Gravity Main (LF)	77,600
Lift Stations	0
Manholes	267

Wastewater flows out of the Marysville portion of the MIC to the wastewater treatment plant (WWTP) in Marysville, which discharges through two outfalls, a deep-water outfall in Port Gardner Bay and another outfall into Steamboat Slough. Discharges through the outfalls are based on seasonal flows and Permit limits. Though the WWTP is expected to have sufficient hydraulic capacity through 2031, the projected loadings for 2031 exceed the plant's design capacity for both BOD5 and TSS. The City has long-term plans for two additional complete-mix aerated cells to ensure adequate treatment capacity (Marysville 2011).

Several wastewater capital projects are planned in the Marysville portion, but have been delayed due to lack of development. The City is currently planning for wastewater system expansion associated with planned extension of 156th Street NE from Smokey Point Boulevard NE to 51st Avenue NE.

6.2 Key Findings & Implications for Plan

In the Arlington portion of the MIC, most infrastructure is in place and the City has begun planning for service in the underdeveloped portion of the portion, south of 172nd Street NE. Some infrastructure will need to be upgraded as redevelopment occurs and the City has begun planning for this.

Much of the Marysville portion of the MIC lacks infrastructure to serve development. The City has begun planning some infrastructure expansion near the Smokey Point Neighborhood. As the Study Area develops, infrastructure will need to be planned, designed, and built to support the intended land use. The City will need to decide how much to invest in infrastructure to encourage more rapid development. Alternately the City could expand infrastructure more incrementally as development occurs. Tools such as local improvement districts, latecomer fees, or investments by external entities could be used to facilitate infrastructure construction.

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