

# REDMOND »»» 2050

**PRELIMINARY DRAFT FOR  
REVIEW**

## **Existing Conditions Report**

*Introduction*

Supporting information about report  
can be included on the cover if  
applicable.

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# Table of Contents

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# Redmond 2050: Existing Conditions

Understanding today to inform how we plan for tomorrow

## Introduction

The purpose of the Redmond 2050 Existing Conditions Report is to summarize existing conditions and trends in Redmond, Washington in preparation for the periodic review and update of the Redmond Comprehensive Plan. An existing conditions report summarizes community characteristics and technical information related to existing land use, zoning, demographic trends, market potential, transportation networks, community facilities, parks, environmental features, and open spaces. This catalogue of information facilitates informed decision making by allowing all community members to start with the same set of facts. An understanding of existing conditions and trends is needed to inform the development of future goals, policies, and regulations. This report will provide important baseline information that will serve as the foundation for Redmond 2050 periodic review and update of the Redmond Comprehensive Plan.

This report will be comprised of seven technical reports on the following topics.

1. Land Use
2. Housing
3. Natural Resources
4. Economic Vitality
5. Utilities
6. Capital Facilities
7. Transportation

Each technical report will provide the following information as it relates to the subject of the individual technical reports.

- State and Regional Planning Context
- Local Planning and Regulatory Context
- Current Conditions: Inventory (land uses, facilities, existing housing, natural resources, parks and open space etc.)
- Level of Service Analysis
- Trends Analysis
- Policy Considerations

## State and Regional Planning Context

The Growth Management Act (GMA) requires that each Washington city and county periodically review and, if needed, revise its comprehensive plan and development regulations every eight years (RCW 36.70A.130). Redmond must complete its next periodic review and update no later than June 30, 2024 ([HB 2342](#)).

**Puget Sound Regional Council and VISION 2050.** The region's local governments come together at the Puget Sound Regional Council ([PSRC](#)) to make decisions about transportation, growth management, and economic development. PSRC serves King, Pierce, Snohomish, and Kitsap counties, along with cities and towns, tribal governments, ports, and state and local transportation

agencies within the region. PSRC is the federally designated Metropolitan Planning Organization for the region.

PSRC, together with its membership, has articulated a vision of the future of the Puget Sound region, through VISION 2050. VISION 2050 is the regional planning document that provides a framework for how and where development occurs and how the region supports efforts to manage growth. VISION 2050 coordinates actions across jurisdictional boundaries, informs both countywide and local planning documents, and sets the framework for updates to both local comprehensive plans and countywide planning policies (more fully discussed below). The PSRC General Assembly adopted VISION 2050 on October 29, 2020.

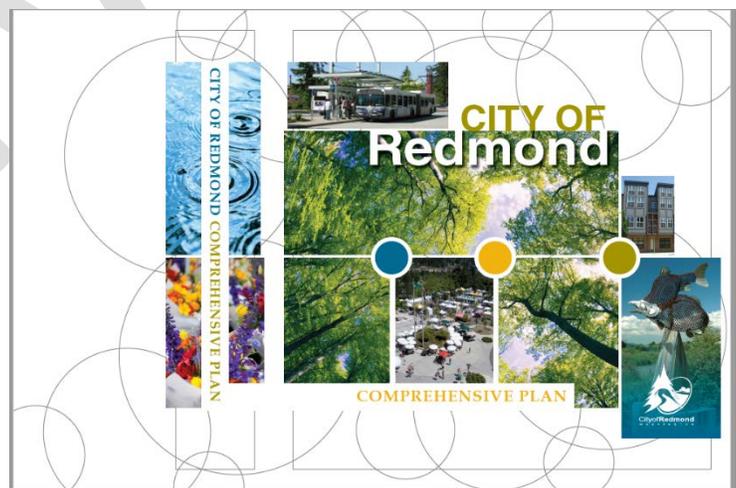
**Core Cities, Regional Centers and Centers.** VISION 2050 identified Redmond as a Core City. A Core City is a regional geography within VISION 2050 that refers to a city that contains one or more regionally designated centers and is connected to the high-capacity transit network. Redmond has two regionally designated centers, referred to locally as urban centers: Downtown and Overlake.

Urban centers include housing, employment, retail and entertainment uses and are pedestrian-oriented, and are well-served by transit. They allow people to reach destinations or attractions using a variety of travel modes. Under the VISION 2050 Regional Growth Strategy, urban centers are areas where significant growth is planned. Redmond also has one designated local center, Marymoor Village, which provides a local gathering place, serves as a community hub, and is also a focal point for additional growth.

**The King County Countywide Planning Policies** (CPPs, update pending) address growth management issues in King County. The Growth Management Planning Council (GMPC) brings together elected officials from King County and the jurisdictions within King County to develop the CPPs. Local jurisdictions must update their comprehensive plans to ensure consistent and coordinated implementation of the CPPs.

## Local Planning Context

The last major update to the Comprehensive Plan took place in 2010-2011 (Ordinance 2638). This update was completed ahead of the 2015 state deadline for completion of comprehensive plan periodic review and updates for King County. The 2010-2011 update included document-wide changes to text, maps, and figures. Since the last major update, amendments have continued almost yearly by through the annual docketing process. Below are some of the major plan updates since 2011:



- February 17, 2013: Urban Centers
- August 31, 2013: Capital Facilities
- March 29, 2014: Housing

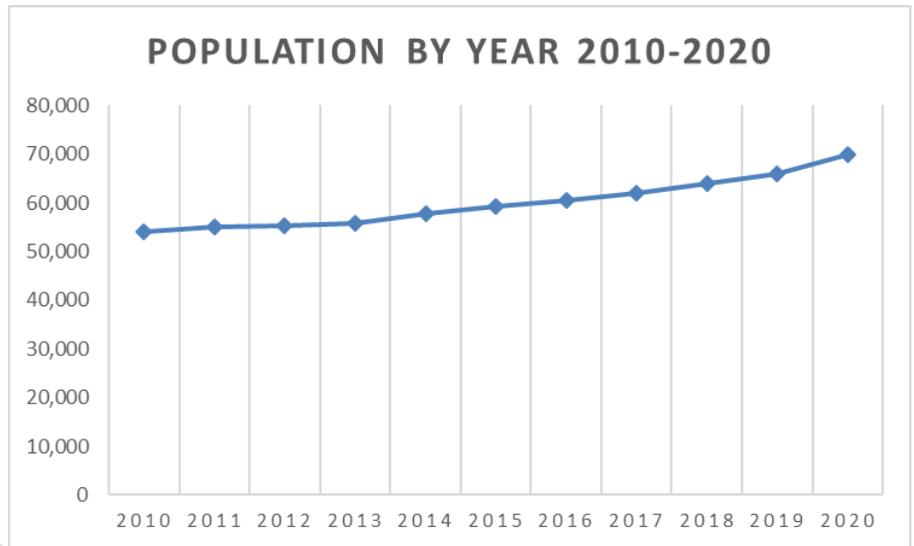
- July 5, 2014: Land Use
- November 1, 2014: Neighborhoods and Land Use
- April 18, 2015: Land Use
- March 2015: Economic Vitality
- June 2017: Goals, Vision, and Framework; Land Use; Housing; Economic Vitality; Transportation; Capital Facilities; and Neighborhoods.

FIGURE 1: POPULATION 2010-2020

## Community Profile

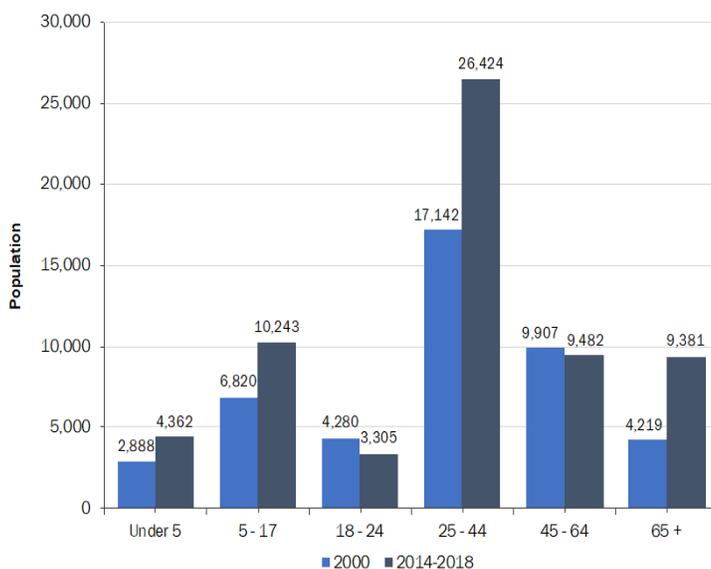
### Population

Redmond has a 2020 population of 69,900 people and is the 17<sup>th</sup> most populous city in the state of Washington and the 10<sup>th</sup> most populous city in King County. Redmond has experienced steady growth since 2010, growing faster than King County as a whole and at a similar rate as Bellevue. Redmond grew by over two percent per year on average while King County grew by 1.34 percent between 1990 and 2018.



Sources: Office of Financial Management (OFM), 1990 Census Demographic Profiles; OFM Census 2000 Public Law 94-171 Redistricting Data; U.S. Census Bureau, 2010 Summary File 1; American Community Survey (ACS) 5-year Estimates

FIGURE 2 - AGE DISTRIBUTION



U.S. Census Bureau, 2000 Summary File; ACS 2014-2018 5-year Estimates.

Forty-one percent (41%) of Redmond residents are between the ages of 25 to 44, comprising the single largest age category among all residents. This age group together with the 65+ age group have grown disproportionately to other age groups since 2010.

- Residents that are 65+ represented 9 percent of the population in 2010 and by 2019 accounted for 14 percent of the population.
- Residents that are 25-44 represented 38 percent of the population in 2010 and by 2018 accounted for 41 percent of the population.

Two age groups have decreased as a proportion of total population since 2010:

- Residents that are 18-24 represented 9 percent of the population in 2010 and by 2018 accounted for 5 percent of the population
- Residents that are 45-64 represented 22 percent of the population in 2010 and by 2018 accounted for only 15 percent of the population.

## Race and Ethnicity

Redmond has become more racially and ethnically diverse since 2000, when those who identified as white represented 79 percent of the population. Asians comprised the second largest racial/ethnic category in 2000, representing 13 percent of the population.

TABLE 1 - REDMOND RACE AND ETHNICITY

Race/Ethnicity	2000	2014-2018
White	79%	56%
Asian	13%	35%
Black or African American	2%	2%
Some other race alone	3%	2%
Two or more races	3%	5%
Hispanic or Latino	6%	7%

## Languages in Redmond

The 2018 American Community Survey 5-year estimates indicates that 45.5 percent of residents speak a language other than English at home with 11.9 percent of those indicating that they speak English less than very well. After English, the top languages spoken at home are Asian and Pacific Islander languages, other Indo-European languages, and Spanish.

TABLE 2 - PREDOMINANT LANGUAGES IN REDMOND

Language	Percent
English Only	54%
Asian and Pacific Islander Language	19.5%
Other Indo-European Language	17.0%
Spanish	6.1%

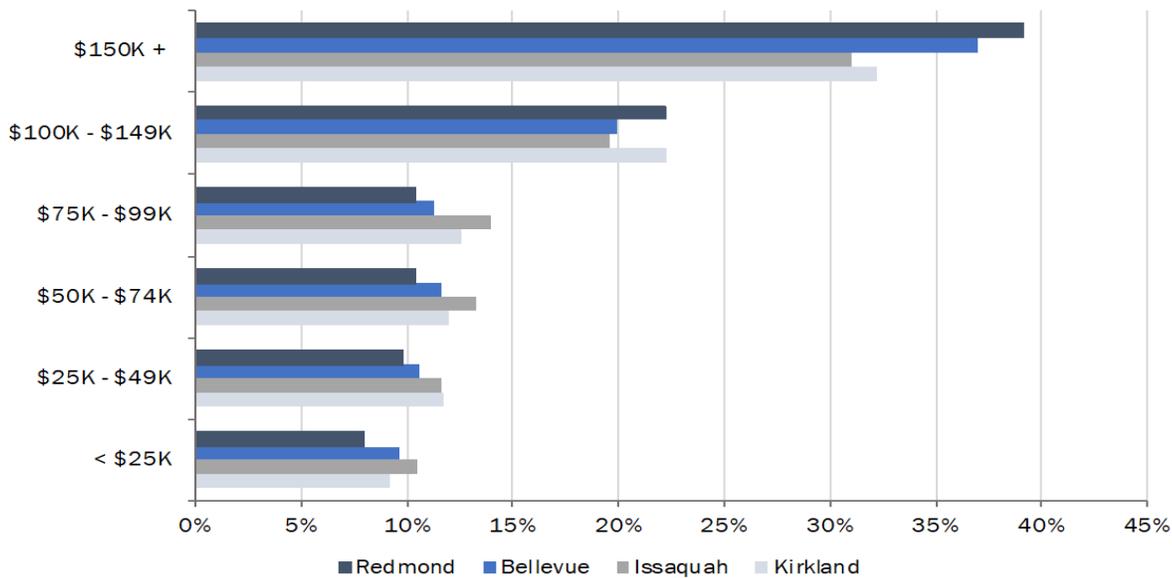
Because the languages of India are combined into an "Other Indo-European languages" category, it is difficult to identify specific percentages that capture Hindi speakers only. The 2018 Public Use Microdata Sample that in Northwest King County, which includes the cities of Redmond, Kirkland and Inglewood and Finn Hill areas, identifies Hindi as the third most common language after Spanish and Chinese. [2018: ACS 5-Year Estimates](#)

## Household Income

The City of Redmond's median household income is estimated at \$123,449 for with almost 40 percent of its population earning over \$150,000. Despite the occurrence of a recession, Redmond's

median household income increased by 40 percent, from \$88,194 in 2000 to \$123,449 in 2018. (Sources: U.S. Decennial Census, 2000, US Census Bureau; 2014-2018 ACS 5-year Estimates). The 2018 median income for Redmond is above King County’s median income of \$95,009 000 (Sources: U.S. Census Bureau, 2010 ACS 5-Year Estimates; King County (2018), accessed at: [www.kingcounty.gov/independent/forecasting](http://www.kingcounty.gov/independent/forecasting)). In comparison to the neighboring cities, Redmond has the highest share of \$150,000 household incomes and the lowest share of household incomes under \$25,000. The median household income in Redmond is \$123,449 per year. This has risen steadily since 2000. Redmond has the highest share of \$150k+ household incomes among its jurisdictional peers.

**FIGURE 3: HOUSEHOLD INCOME, REDMOND, BELLEVUE, ISSAQUAH, AND KIRKLAND, 2014-2018**



Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates.

Source: [Redmond Housing Needs Assessment](#)



## Existing Conditions

# Land Use Element

### Introduction

The Land Use Element provides information on land use patterns at the city and subarea scale, forming the basis for planning for growth, including needs for transportation, parks and open space, water, and other public facilities and services. This section of the report provides information on the current land use planning framework in Redmond, including adopted land use plans, existing land uses, and future land use designations and zoning applied by the City of Redmond.

### State & Regional Planning Context

#### State Regulations

The Washington State Growth Management Act (GMA, [RCW 36.70A](#)) is the preeminent legislation for land use planning in Washington state. The GMA identifies three distinct landscapes: urban lands, rural lands, and natural resource lands. The GMA makes clear that the long-term sustainability of rural and resource lands depends on accommodating most development within designated urban growth areas. The GMA requires local governments to prepare comprehensive plans to accommodate 20 years of expected growth. Each comprehensive plan must include land use, transportation, housing, capital facilities and utilities elements. Redmond is within the King County urban growth area and as such must plan to accommodate the 20-year growth allocation assigned to Redmond through the countywide growth target allocation process.

While the GMA requires counties and cities to provide capacity to accommodate 20-year projected growth targets, capacity may be greater than land use growth assumptions used in comprehensive plans.

The GMA also requires that all elements of a comprehensive plan shall be consistent with the future land use map ([RCW 36.70A.070](#)). A land use element must:

- Designate the proposed general distribution, location and extent of the uses of land;
- Include population densities, building intensities, and estimates of future population growth;
- Provide for protection of the quality and quantity of groundwater used for public water supplies;
- Promote physical activity where possible; and,

### Fast Facts

- 65%: Land designated for residential use
- 2: Urban Centers, Downtown and Overlake
- 10: Neighborhoods
- 49: Types of zones
- 13: Land use designations (within city limits)

- Review drainage, flooding, and stormwater runoff in the area and nearby jurisdictions and provide guidance for corrective actions to mitigate or cleanse those discharges that pollute waters of the state, including Puget Sound or waters entering Puget Sound.

## Puget Sound Regional Council

In the four-county central Puget Sound region, local governments have collaborated through the Puget Sound Regional Council (PSRC) to establish a Regional Growth Strategy, contained in VISION 2050. VISION 2050 addresses a spectrum of land use planning issues, including aligning transportation investments with rates of development, involving diverse voices in planning, community design, and preserving special land uses. Each of these is important for achieving the Regional Growth Strategy that accommodates most new growth in urban centers throughout the region while supporting and enhancing existing communities.

VISION 2050 envisions a future where the region:

- Maintains a stable urban growth area.
- Focuses the great majority of new population and employment within the urban growth area.
- Maintains a variety of community types, densities, and sizes.
- Achieves a better balance of jobs and housing across the region.
- Within the urban growth area, focuses growth in cities.
- Within cities, creates and supports centers to serve as concentrations of jobs, housing, services, and other activities.
- Builds transit-oriented development around existing and planned infrastructure.
- Uses existing infrastructure and new investments efficiently.

Redmond is designated as a “core city” with two regional growth centers within the VISION 2050 plan, which means it has access to high-capacity frequent transit that connects to other regional centers. Downtown Redmond is designated as an “Urban” growth center with a target density of 45 units per acre, while Redmond Overlake is designated as a “Metro” growth center with a target density of 85 units per acre. Urban centers are planning districts intended to provide a mix of housing, employment, commercial, and cultural amenities in a compact form. Within urban centers, PSRC requires that cities plan for a mix of uses, including housing, employment, retail and entertainment uses, that are served by multiple transportation options. Urban centers are focal points of vibrant city life and activity, as well as strategic locations for accommodating a significant share of future population and employment growth. They also are priority areas for PSRC's federal transportation funding.

Vision 2050 contains the following key land use development requirements. A full list can be found at the PSRC website ([Vision 2050](#)):

- **MPP-DP-1** Develop high-quality, compact urban communities throughout the region's urban growth area that impart a sense of place, preserve local character, provide for mixed uses and choices in housing types, and encourage walking, bicycling, and transit use.
- **MPP-DP-2** Reduce disparities in access to opportunity for the region's residents through inclusive community planning and targeted public and private investments that meet the needs of current and future residents and businesses.

- **MPP-DP-3** Enhance existing neighborhoods to provide a high degree of connectivity in the street network to accommodate walking, bicycling, and transit use, and sufficient public spaces.
- **MPP-DP-9** Support urban design, historic preservation, and arts to enhance quality of life, support local culture, improve the natural and human-made environments, promote health and well-being, contribute to a prosperous economy, and increase the region's resiliency in adapting to changes or adverse events.
- **MPP-DP-11** Identify and create opportunities to develop parks, civic places (including schools) and public spaces, especially in or adjacent to centers.

Specific goals for accommodating growth are provided through the Regional Growth Strategy and include:

- **MPP-RGS-8** Attract 65% of the region's residential growth and 75% of the region's employment growth to the regional growth centers and high-capacity transit station areas to realize the multiple public benefits of compact growth around high-capacity transit investments. As jurisdictions plan for growth targets, focus development near high-capacity transit to achieve the regional goal.
- **MPP-RGS-9** Focus a significant share of population and employment growth in designated regional growth centers.
- **MPP-RGS-11** Encourage growth in designated countywide centers.
- **MPP-RGS-12** Avoid increasing development capacity inconsistent with the Regional Growth Strategy in regional geographies not served by high-capacity transit.

## Countywide Planning Policies

Countywide planning policies (CPPs) address a wide variety of growth management topics at the countywide scale. The 2012 King County CPPs were updated to address changes to the GMA, take into account the passage of 20 years since their initial adoption, and to specifically reflect the Regional Growth Strategy. For the purposes of this report, the 2012 CPPs, as amended in 2016, will be referenced because proposed amendments to the CPPs will not be adopted until 2021. The primary focus of this chapter will be applicable policies that are firmly grounded in GMA requirements and are consistent with regional objectives.

Redmond's land use policies must be consistent with King County CPPs. Countywide planning policies addressing land use are found primarily in the Development Pattern Chapter. Some are also found in the Environment Chapter and Economy Chapter. The following provides a high-level summary of key CPP policy directives.

## Development Patterns Chapter

- **DP-3** Efficiently develop and use residential, commercial, and manufacturing land in the Urban Growth Area to create healthy and vibrant urban communities with a full range of urban services, and to protect the long-term viability of the Rural Area and Resource Lands. Promote the efficient use of land within the Urban Growth Area by using methods such as;

- Directing concentrations of housing and employment growth to designated centers;
- Encouraging compact development with a mix of compatible residential, commercial, and community activities;
- Maximizing the use of the existing capacity for housing and employment; and
- Coordinating plans for land use, transportation, capital facilities and services.
- **DP-4** Concentrate housing and employment growth within the designated Urban Growth Area. Focus housing growth within countywide designated Urban Centers and locally designated local centers.
- **DP-13** All jurisdictions shall plan to accommodate housing and employment targets. This includes:
  - Adopting comprehensive plans and zoning regulations that provide capacity for residential, commercial, and industrial uses that is sufficient to meet 20-year growth needs and is consistent with the desired growth pattern described in VISION 2050;
  - Coordinating water, sewer, transportation and other infrastructure plans and investments among agencies; and
  - Accommodating unincorporated area housing and employment targets as annexations occur.
- **DP-32** Adopt a map and housing and employment growth targets in city comprehensive plans for each Urban Center, and adopt policies to promote and maintain quality of life in the Center through:
  - A broad mix of land uses that foster both daytime and nighttime activities and opportunities for social interaction;
  - A range of affordable and healthy housing choices;
  - Historic preservation and adaptive reuse of historic places;
  - Parks and public open spaces that are accessible and beneficial to all residents in the Urban Center;
  - Strategies to increase tree canopy within the Urban Center and incorporate low impact development measures to minimize stormwater runoff;
  - Facilities to meet human service needs;
  - Superior urban design which reflects the local community vision for compact urban development;
  - Pedestrian and bicycle mobility, transit use, and linkages between these modes;
  - Planning for complete streets to provide safe and inviting access to multiple travel modes, especially bicycle and pedestrian travel; and
  - Parking management and other strategies that minimize trips made by single occupant vehicle, especially during peak commute periods.

## Environment Chapter

- **EN-16** Plan for land use patterns and transportation systems that minimize air pollution and greenhouse gas emissions, including:
  - Maintaining or exceeding existing standards for various air pollutants;
  - Directing growth to Urban Centers and other mixed use/ high density locations that support mass transit to reduce personal vehicle trips

- Facilitating transportation alternatives to single occupancy vehicles;
- Incorporating energy-saving strategies;
- Encouraging green building techniques; and
- Increasing the use of low emission vehicles.
- **EN-20** Plan and implement land use, transportation, and building practices that will greatly reduce consumption of fossil fuels.

## Economic Chapter

- **EC-2** Support economic growth that accommodates employment growth targets through local land use plans, infrastructure development, and implementation of economic development strategies.
- **EC-16** Add to the vibrancy and sustainability of our communities and the health and well-being of all people through safe and convenient access to local services, neighborhood-oriented retail, purveyors of healthy food (e.g. grocery stores and farmers markets), and transportation choices.

## Local Planning & Regulatory Context

### Local Planning Context

Redmond plans under the GMA as described above. As such, Redmond's local land use plan must be consistent with the King County CPP's, PSRC's VISION 2050, and the GMA. Redmond's Comprehensive Plan details goals, vision, and framework for the city. Framework Policy 13 establishes the parameters for land use patterns within the city.

- **FW-13** Ensure that the land use pattern in Redmond meets the following objectives:
  - Takes into account the land's characteristics and directs development away from environmentally critical areas and important natural resources;
  - Encourages redevelopment of properties that are underutilized or inconsistent with the Comprehensive Plan designation;
  - Supports the preservation of land north and east of the city, outside of the Urban Growth Area, for long-term agricultural use, recreation and uses consistent with rural character;
  - Provides for attractive, affordable, high-quality and stable residential neighborhoods that include a variety of housing choices;
  - Focuses and promotes office, housing and retail development in the Downtown and Overlake Urban Centers;
  - Provides for the transition of the Marymoor Local Center to be a location that includes housing, services and a diversity of employment opportunities;
  - Retains and encourages research and development, high technology and manufacturing uses in portions of Overlake, Downtown, Willows and Southeast Redmond;
  - Provides for industrial uses in suitable areas, such as portions of the Southeast Redmond neighborhood;

- o Provides opportunities to meet daily shopping or service needs close to residences and work places;
- o Provides and enhances the geographic distribution of parks and trails to support active, healthy lifestyles; and Advances sustainable land development and best management practices, multimodal travel and a high-quality natural environment.

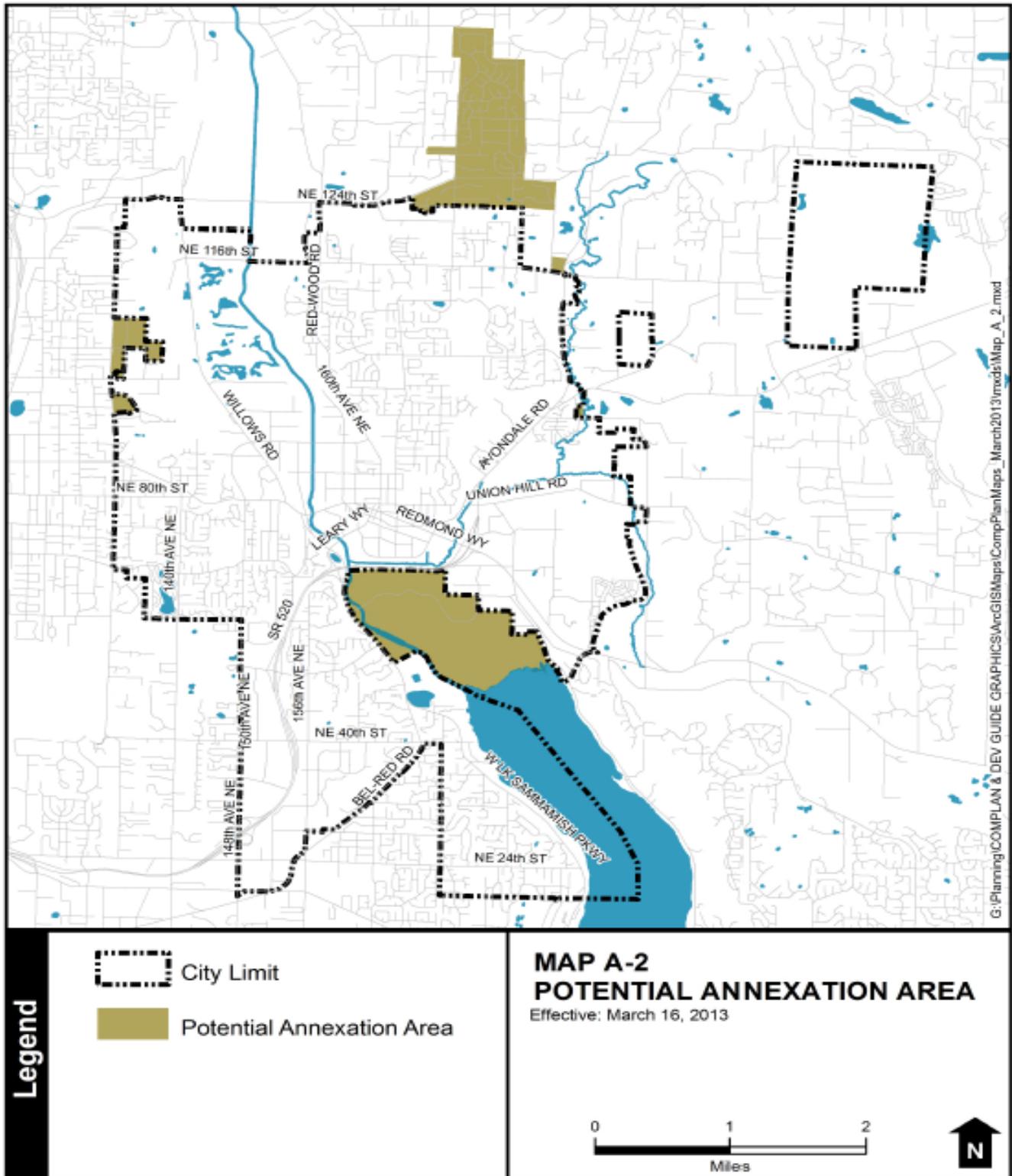
The Comprehensive Land Use Plan Map (see Map LU-1 at the end of the Land Use Element) graphically displays the preferred land use pattern. The different areas on the Comprehensive Land Use Plan Map are referred to as land use designations. The policies with the Redmond Comprehensive Plan provide guidance regarding the purpose of each designation, appropriate land uses and other considerations. Below is a summary of the land use designations and the corresponding zones that fall under those designations.

In addition to planning for areas within city limits, Redmond expects to annex areas adjacent to the city that are within the UGA yet remain in unincorporated King County. These areas are identified as Potential Annexation Areas (PAA). Together with the Utilities Element, the Annexation and Regional Planning Element of the Comprehensive Plan provide policies and guidance for managing growth and change in these areas.

FIGURE 1 LAND USE DESIGNATIONS

Land Use Plan Map Designation	Consistent Zones
Single-Family Constrained	R-1, R-2, R-3
Single-Family Urban	R-4, R-5, R-6, R-8 and Residential Innovative (RIN)
Multifamily Urban	R-12, R-18, R-20, R-30
Neighborhood Commercial	NC-1, NC-2
General Commercial	General Commercial
Downtown Mixed-Use	Downtown Zones
Overlake Mixed-Use	Overlake Zones
Business Park	Business Park
Manufacturing Park	Manufacturing Park, Industry
Design District	Design District
Marymoor Design District	MDD1, MDD2, MDD3, MDD4, MDD5
Urban Recreation	Urban Recreation
Semirural	RA-5
Park and Open Space	All zones

FIGURE 2 POTENTIAL ANNEXATION AREA MAP



While most policies related to land use can be found in the Land Use Element, the Redmond Comprehensive Plan also contains policies for land use in other elements, as shown in the table below.

TABLE 1 LAND USE POLICIES IN COMPREHENSIVE PLAN

Element	Summary
Land Use	Designed to help Redmond achieve its vision by setting forth policy for land development across the entire city
Neighborhoods	Contains neighborhood-specific policies for ten distinct neighborhoods. Neighborhood planning addresses neighborhood-level issues and opportunities in a manner consistent with overall City land use policy to develop solutions that foster opportunities and address problems.
Urban Centers	Contains policies for Redmond's two urban centers: Downtown and Overlake. Note that the urban centers are located within, but are smaller than, the associated neighborhood. For example, the Downtown Urban Center is located completely within the Downtown neighborhood, but the urban center is not comprised of the entire downtown neighborhood.

### Redmond Land Use Regulations

The Redmond Zoning Code (RZC), which is Title 21 of the Redmond Municipal Code, regulates land use in Redmond. The RZC contains regulations addressing land use, building form, site development standards, architectural design, environmental standards, land division, and development review procedures. The Zoning Map (RZC 21.04 and appended to the end of this section) is required to be consistent with the Comprehensive Land Use Map and categorizes Redmond's zoning districts into one of four categories.

1. Recreation,
2. Residential,
3. Commercial/Industrial, and
4. Mixed Use.

### Sound Transit

A total of four light rail stations will be constructed in Redmond. Sound Transit Link light rail will be coming to Redmond's Overlake neighborhood in 2023 and to Southeast Redmond and Downtown in 2024. Link will give riders a fast, frequent and reliable connections among the Eastside's biggest population and employment centers and destinations, as well as to the wider region. Sound Transit partners with private and non-profit developers to build transit-oriented development (TOD) on its surplus property, where housing affordable to a range of income levels, as well as new retail, restaurants, offices, and community spaces, contribute to creating vibrant neighborhoods with direct access to transit.

## Current Conditions

### Inventory of Existing Conditions

The City of Redmond has a hierarchy of broader land use designations (see Figure 1), each of which contain a subset of land use zones (Table 2). The most intense land uses are directed to Overlake, Downtown, and Marymoor Village.

The RZC identifies 49 zoning districts. Each zone contains unique development regulations to:

- Guide growth in a logical and orderly manner;
- Maintain a quality environment; and
- Provide for the conservation, protection and enhancement of the public health, safety and general welfare of the city.

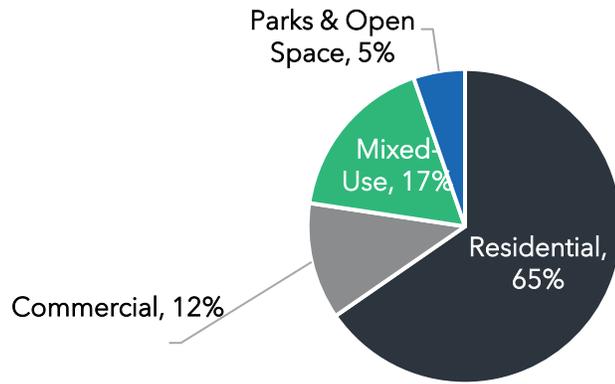
The largest zones as a percent of all zoned areas in Redmond are R-4 (17.8%), R-5 (12.5%), and Semi-Rural Residential (9.2%) (Table 2). In contrast, the sum of all Overlake zones comprises 8.3% of all zoned areas in Redmond.

Table 2 City of Redmond Zones by Land Use Designation

Land Use	Consistent Zones	Percent of All Land Area
Single-Family Constrained	R-1, R-2, R-3	7.0%
Single-Family Urban	R-4, R-5, R-6, R-8 and Residential Innovative (RIN)	40.3%
Multifamily Urban	R-12, R-18, R-20, R-30	8.9%
Neighborhood Commercial	NC-1, NC-2	0.2%
General Commercial	GC	0.6%
Downtown Mixed-Use	AP, BC, CTR, EH, OT, RR, RVBD, RVT, SMT, TR, TSQ, TWNC, VV	5.7%
Design District	MDD1, MDD2, MDD3, MDD4, MDD5, NDD1, NDD2, NDD3, NWDD, BDD1, BDD2	3.2%
Overlake Mixed-Use	OBAT, OV1, OV2, OV3, OV4, OV5	8.3%
Semi-Rural	RA-5	9.2%
Urban Recreation	UR	5.3%
Parks & Open Space	All Zones	N/A
Manufacturing Park	MP, I	6.7%
Business Park	BP	4.7%
	<b>TOTAL</b>	<b>100.0%<sup>1</sup></b>

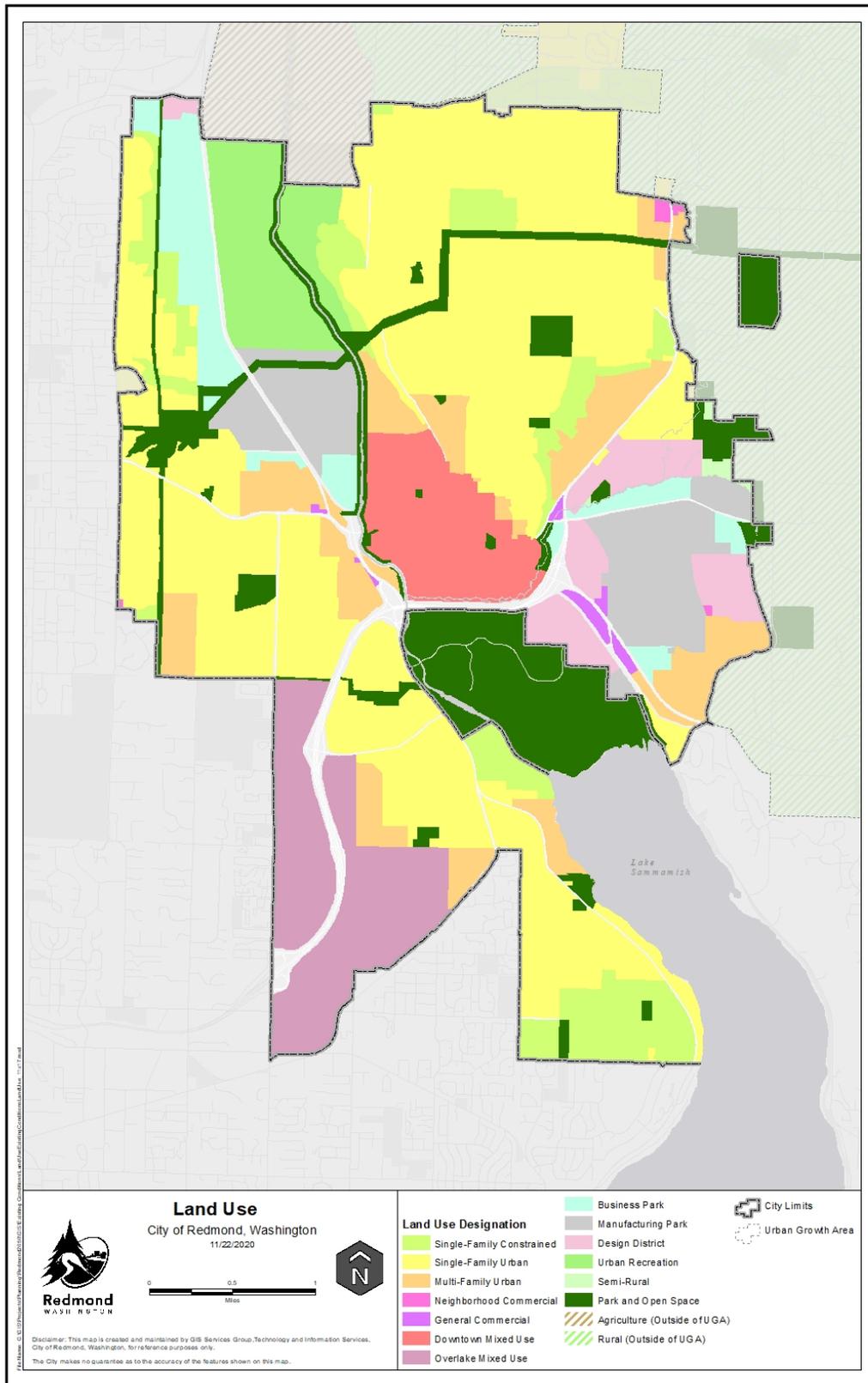
<sup>1</sup> Differences from 100.0% due to rounding

FIGURE 3 - LAND USE IN REDMOND BY GENERAL CATEGORY



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FIGURE 4 - MAP OF LAND USE DESIGNATIONS



### Neighborhoods

The City of Redmond is divided into 10 neighborhoods (Figure 5 and Table 3). Downtown, Overlake, and Southeast Redmond are the most intensely developed neighborhoods. This corresponds with the Regional Growth Strategy to accommodate most growth in urban centers and around light rail stations.

FIGURE 5 MAP OF NEIGHBORHOODS AND URBAN

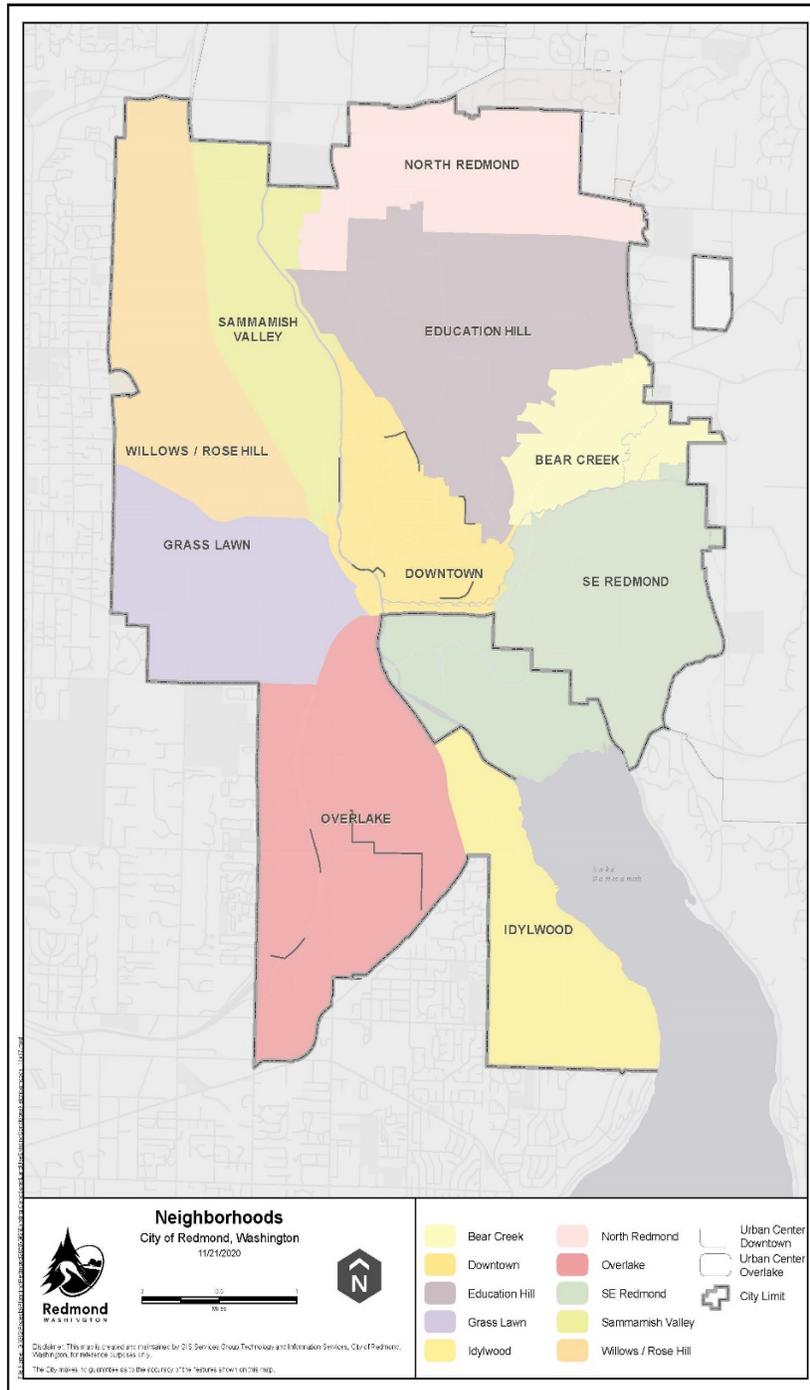


TABLE 3 - NEIGHBORHOOD ACREAGE

Neighborhood	Acres	Percent Area of All Neighborhoods
Idylwood	840	8%
Overlake	1,493	14%
Grass Lawn	944	9%
SE Redmond	1,624	16%
Bear Creek	486	5%
Downtown	659	6%
Education Hill	1,482	14%
Sammamish Valley	801	8%
Willows / Rose Hill	1,113	11%
North Redmond	1,011	10%

### Urban Centers

Redmond contains two urban centers: Downtown and Overlake. They are focal points for development, transit and employment and account for 20% of the city's land (Table 3).

Downtown Redmond is currently home to 6,000 residents and 10,000 jobs with 1.1 million square feet of commercial space and 1.6 million square feet of retail space. There are 4,336 multi-family dwellings up to 85' or 7 stories in height. There are 2-5 parking spaces per 1,000 square feet of commercial space available. Current land use is predominantly low to mid-rise commercial. Blocks are small, creating a strong foundation for a comfortable pedestrian environment. Housing is primarily renter occupied. (The IBI Group, 2020)

The Overlake neighborhood contains more than 48,000 jobs, making it the third largest job center in the region (City of Redmond, 2019). Overlake has a much more diverse population than the regional average. This regional center contains primarily multi-family housing developments with more than 20 homes per development. Around Overlake Village station and the Redmond Technology Station, the current land use is predominantly commercial. The small residential population has a higher level of education on average, and 59% are a racial or ethnic minority. Around Overlake Village, the median income for the residents is \$57,732, lower than the city's average while the Overlake Transit Center median income is closer to the citywide average at \$91,214 (The IBI Group, 2020).

The City of Redmond's growth strategy is to accommodate most growth in its two urban centers. An estimated 26% of dwelling units are in our urban centers, with a goal of approximately 1/3 of all the housing to be in Urban Centers by 2030. The City is on track to reach that goal with 70% of the dwelling units that were built between 2010 and 2019 taking place in the Urban Centers.

TABLE 4 GROWTH IN URBAN CENTERS VS. CITYWIDE

	2010 <sup>2</sup>	2019 Actuals	2010- 2019 Growth	2030 Comp Plan Projection
Urban Center Housing Units	3,140	7,532	4,392	11,900
Overall Citywide Housing Units	25,000	31,316	6,316	36,500

### Transfer of Development Rights Program

The City of Redmond has codified a Transfer of Development Rights (TDR) program ([RZC 21.48](#)). The purpose of the TDR program is to advance Comprehensive Plan goals and policies that address the protection of environmentally critical areas, historic resources (including archeological resources), open spaces, and the ability to provide affordable housing, by transferring the right to develop on the land needing protection to land more suitable for urban development.

### Level of Service Analysis

Redmond is on-track to meet the 2035 growth targets that had been set at the last Comprehensive Plan update.

TABLE 5 REDMOND GROWTH VS. 2035 GROWTH TARGETS

	2035 Growth Target	2006-2018 Growth	% of Target Achieved
Housing	11,832 new housing units	4,946 new housing units	42% - ahead of target (41% of time period has elapsed)
Jobs	26,680 new jobs	11,967 new jobs	45% - ahead of target (41% of time period has elapsed)

### Trends Analysis

#### Office Developments

Microsoft is replacing 12 office buildings with 3 million square feet of office space at its corporate campus in Redmond's Overlake neighborhood. The net increase in office space for the Microsoft redevelopment is approximately 2,094,000 square feet. The project has a clustered village design that will encourage multimodal travel and include shops, restaurants, and sports facilities.

Additional technology-based jobs in a campus setting are expected along Willows Road with Facebook/Oculus developing a 678,000-square-foot campus that will feature green roofs to mimic the surrounding forest. At the Redmond Town Center, the former 111,000-square-foot department store will be transformed into office space for approximately 600 Amazon employees.

<sup>2</sup> From the Comprehensive Plan

## Overlake Mixed Use Communities

The Esterra Park 26-acre and Seritage 13-acre Master Planned Developments in Overlake are examples of how Redmond land use patterns are changing. These two sites will include housing, hotels, office, retail and public amenities that are well served by transit as light rail arrives to Redmond. The developments replace a hospital and 1- and 2-story developments with mid-rise, mixed use buildings.

	Housing	Retail	Hotel	Office	Parks
<b>Seritage</b>	500 multifamily units (476,865 square feet)	185,000 square feet	210-room hotel (121,565 square feet)	266,800 square feet	2.4 acres
<b>Esterra Park</b>	No less than 1,400 units	Not less than 25,000 square feet	Accommodate groups of at least 300 people		2.67 acres
				1,384,656 square feet of GFA	

## Downtown Housing Developments

As Redmond plans for light rail, land use intensification near station areas in Downtown is expected and encouraged through land use policy and regulations. A typical example is Porch & Park: a planned, 6-story mixed-use, multifamily building that will replace a one-story fast food restaurant and strip mall. The building will have a reduced parking ratio of .86 spaces per unit and will implement measures to reduce reliance on personal vehicles.

## Marymoor Village

Although Marymoor Village is not envisioned to become an urban center like Downtown and Overlake, it will begin to feature additional and more diverse uses and buildings than currently present. Marymoor Village is currently a diverse mosaic of manufacturing, education, distribution industrial, and religious uses. Much like a small urban village, the area already offers many options but is now beginning to add transit-oriented development that includes housing in advance of the arrival of light rail service.

LMC Marymoor is an example of a TOD planned near the Southeast Redmond light rail station. It will include 450 residential units, underground parking, and 37,000 square feet of commercial space. The development will include sustainable design elements like solar panels, bioretention facilities, and electric vehicle charging.

## Light Rail Stations

Light rail stations are mobility hubs around which to build transit-oriented developments, and more broadly, transit-oriented communities. Sites near light rail stations can be developed with housing affordable to a range of income levels, as well as new retail, restaurants, offices, and community spaces, contributing to vibrant neighborhoods with direct access to transit. The City collaborates with Sound Transit to develop TOD on properties that Sound Transit determines are surplus to its needs.

## Annexations

Redmond's regulates and plans for annexations. The Annexation and Regional Planning Element defines the areas that are eligible for annexation. These areas are also known as Potential Annexation Areas (PAA). The Annexation and Regional Planning Element harmonizes with the Land Use Element to guide annexation into the City. The City regulates how facilities and service provisions are integrated into annexed areas, including how to handle facility and service issues within the PAA, as called for in the King County CPPs.

The City of Redmond has annexed much of its PAA. One large "peninsula" of PAA exists north of Redmond city limits. Although there have been sporadic inquiries for many years, no formal annexation process for this area has begun.

## Policy Considerations

### Policies

All relevant Comprehensive Plan policies concerning land use are under review as part of this Comprehensive Plan update. How the City chooses to accommodate its growth targets is a key consideration in determining which policies should be considered for revision. Policies will also be reviewed for alignment with Redmond 2050 themes of equity and inclusion, sustainability, resiliency, and being technology forward.

At least 65% of growth is required to be allocated to Redmond's two urban centers (Overlake and Downtown). However, the City has discretion on how to allocate the remaining 35%. If the City pursues a more distributed allocation of growth, several major corridors and neighborhood retail hubs may need new land use and/or zoning designations in order to accommodate growth. This may require revisions to associated Land Use policies and would have impacts to equity and inclusion, sustainability, and resiliency themes within the comprehensive plan.

The list below includes some of the more far-reaching policies that could be amended as part of this plan update depending on the growth strategy that the City pursues. Note, these policies are from both the Land Use and other elements in the Comprehensive Plan.

Policy Consideration	Relationship to Themes
LU-36 Multifamily Urban Designation. This purpose of this policy is to provide guidance for designating certain lands for multifamily developments based on three conditions.	Equity & Inclusion
OV-66 Allow a mix of housing types and a range of choices, while maintaining the overall single-family character of established developments within Overlake. This maintenance of overall single-family character component of this policy may need to be revised in order to meet the mandated growth target allocations.	Equity & Inclusion Sustainability Resiliency

<p>LU-27 Apply zones consistent with the Comprehensive Land Use Plan Map designations. This policy organizes zones into land use categories. The policy must be updated because the City has adopted additional types of zones since this policy was last updated.</p>	
<p>N-BC-21 Consider allowing neighborhood commercial zoning. This policy provides a list of criteria for considering neighborhood commercial zoning designations within the Bear Creek neighborhoods. This may be revised to meet corridor planning goals for allocated growth targets.</p>	<p>Sustainability Resiliency</p>
<p>Urban Centers &amp; Transit Oriented Development: The City of Redmond is growing, as is the greater Seattle metropolitan area. To accommodate this growth, the PSRC assigns jurisdictions a regional growth allocation share. As planning for the Redmond Comprehensive Plan continues, growth is planned to largely be concentrated near High-Capacity Transit areas, Light Rail Stations, and in the Urban centers. There is often overlap between these three areas.</p>	<p>Equity &amp; Inclusion Sustainability Resiliency</p>

Land Use considerations involve policies across many other elements, especially Housing and Urban Centers. As such, continued analysis of policies will be viewed through several lenses. One such example comes from Housing Action Plan recommendations to promote more uniformity of development standards across neighborhoods to facilitate ease of multiplex development.



## Existing Conditions

# Housing

### Introduction

The Redmond Comprehensive Plan's Housing Element describes the existing conditions and community vision for the future of housing in Redmond. The Housing Element also describes the goals and requirements of the state Growth Management Act and the King County Countywide Planning Policies.

Over the years, Redmond has changed substantially from a suburban bedroom community to an urban employment center offering various housing, jobs, and community amenities.

While the community only makes up a small portion of King County's total population, Redmond is growing at a faster rate than King County and at a similar rate as Bellevue.

This growth has resulted in increased housing scarcity and increased housing costs.

### Fast Facts

- 31,316: Housing units (2019)
- \$2,256: Average Rent for 2-Bedroom Apartment (2019)
- \$823,300: Median Home Price (2019)
- 24%: Households that are Cost-Burdened.

### State & Regional Planning Context

#### State Regulations

The Washington State Growth Management Act requires an inventory and analysis of existing and projected housing needs as part of each jurisdiction's comprehensive plan housing element ([RCW 36.70A.070\(2\)](#)).

Local housing elements should ensure the vitality and character of established residential neighborhoods and include the following components:

1. An inventory and analysis of existing and projected housing needs;
2. Goals, policies, objectives, and mandatory provisions for the preservation, improvement, and development of housing;
3. Identification of sufficient land for a range of housing types to match community needs; and
4. Adequate provisions for the needs of all economic segments of the community. (WAC 365-196-410).

The housing element shows how a county or city will accommodate anticipated growth, provide a variety of housing types at a variety of densities, provide opportunities for affordable housing for all economic segments of the community.

## Puget Sound Regional Council

The Puget Sound Regional Council's [VISION 2050](#) regional plan identifies the primary housing objective: the region preserves, improves, and expands its housing stock to provide a range of affordable, accessible, healthy, and safe housing choices to every resident. The region continues to promote fair and equal access to housing for all people.

VISION 2050 directs jurisdictions to plan for housing and job growth in places designated for higher densities, a mix of land uses, and transportation choices. The region's continuing expansion of high-capacity transit provides one of the best opportunities to expand accessible housing options to households with a wider range of incomes. Promoting or requiring affordable housing in walking distance – about ¼ to ½ mile – from high-capacity transit stations and in regional growth centers can help to ensure all residents have opportunities to live in accessible and connected communities. Such housing will be particularly valuable to low-income households, who are the most dependent on transit and are at risk for displacement as housing costs rise.

The PSRC has collaborated with member jurisdictions to develop Local Housing Actions, which provide guidance and direction for Countywide Planning Policy Updates. Local Actions include:

- H-Action-4: Local Housing Needs: Conduct a housing needs analysis and evaluate the effectiveness of local housing policies and strategies to achieve housing targets and affordability goals. Analysis should include access to jobs and transportation to determine total household costs.
- H-Action-5: Affordable Housing Incentives: Evaluate and adopt techniques such as inclusionary or incentive zoning to provide affordability.
- H-Action-6: Displacement: Develop and implement strategies to address displacement of at-risk populations.
- H-Action-7: Housing Choice: Update regulations and strategies to reduce barriers to the development and preservation of moderate density housing.
- H-Action-8: Housing Production: Review and revise development standards and regulations to reduce barriers to the development of housing.

A full list of policies and actions can be found at <https://www.psrc.org/sites/default/files/vision-2050-plan.pdf>

## Countywide Planning Policies

The King County Countywide Planning Policies provide a framework for all jurisdictions to plan for and promote a range of affordable, accessible, and healthy housing choices for current and future residents. Within King County, there is an unmet need for housing that is affordable for households earning less than 80 percent of area median income (AMI).

The policies below recognize the significant countywide need for affordable housing to focus on the strategies that can be taken both by individual jurisdictions and in collaboration with other partners to meet the countywide need. These policies envision cities and the county following a specific process;

1. Plan for countywide need;
2. Conduct a housing inventory, analysis, and evaluation;
3. Collaborate regionally;
4. Implement policies and strategies to equitably meet housing needs;
5. Measure results and hold the region accountable; and
6. Respond to measurement with reassessment and adjustment of strategies.

The overarching goal of the housing countywide planning policies is that the housing needs of all economic and demographic groups are met within all jurisdictions.

## Local Planning & Regulatory Context

The Housing Element of the Comprehensive Plan was last updated on March 18, 2014. However, several other updates to housing related regulations and programs were completed since the last Comprehensive Plan Periodic Update in 2011. One noteworthy example is the adoption of Multifamily Property Tax Exemption regulations in 2017.

### Redmond Regulations

While the City of Redmond has a wide range of policies, regulations, and programs related to housing, two are especially relevant to affordable housing: inclusionary zoning and alternative compliance.

The City's **inclusionary zoning regulations** ([RZC 21.20](#)) require that residential projects in most areas of Redmond with 10 or more units provide at least 10% of the units affordable at 80% of the Area Median Income (AMI). The regulations also provide the option that instead of 10% of the units at 80% AMI, 5% of the units can be at 50% AMI. In addition, for each affordable unit, one bonus unit is allowed (up to 15% above the maximum density for the zone) except Downtown, where the City raised height limits and eliminated density limits. Affordable units are kept affordable for the life of the project in the case of rental housing, or 50 years in the case of homeownership. The regulations have resulted in the creation of 531 affordable homes, with a further 69 in the development pipeline.

The City's inclusionary requirements allow a developer to meet the provisions of the regulations through **alternative compliance**, which can be implemented by either providing affordable units off site or by providing cash payments "in lieu" of providing affordable housing within the project itself ([RZC 21.20.050](#) and [RMC 3.38.170](#)). Fee-in-lieu payments will only be used for the provision of affordable housing units by the City or other housing provider and must demonstrate that any alternative achieves a result equal to or better than providing the housing units on site. The City has used fee-in-lieu payments primarily to assist in funding non-profit housing developments that provide greater levels of affordability.

The **Multifamily Property Tax Exemption** (MFTE) program in Redmond ([RMC 3.38](#)) provides a tax exemption to encourage the development of affordable units within new multifamily rental projects at greater levels of affordability within three designated “Residential Targeted Areas” in Redmond. The MFTE provides a tax exemption on eligible multifamily housing in exchange for affordable income- and rent-restricted units. By supporting mixed-income residential development in the urban centers, the MFTE program ensures affordability as the community grows.

- The exemption provides either an 8 or a 12-year property tax exemption on the assessed improvements for those projects.
- Land, and nonresidential improvements are nonexempt.
- Affordability levels for an 8-year exempted project are typically 60% of Area Median Income (AMI) for 10% of the units.
- Affordability levels for a 12-year exempted project are typically 60% to 85% AMI for 20% of the units.
- Affordable units must remain affordable for the life of the project, similar to Redmond’s inclusionary requirements.
- MFTE regulations have resulted in the creation of 41 affordable homes, with a further 17 homes in the development pipeline.

### Redmond Partnerships

A Regional Coalition for Housing ([ARCH](#)) is a partnership of the County and East King County cities who have joined together to assist with preserving and increasing the supply of housing for low- and moderate-income households in the region. The City of Redmond collaborates with ARCH to create ARCH work programs, budgets, and special projects.

ARCH assists member governments in developing housing policies, strategies, programs, and development regulations; coordinates the cities' financial support to groups creating affordable housing for low- and moderate-income households; and assists people looking for affordable rental and ownership housing.

ARCH's member governments have supported a wide range of housing created and operated by local organizations and private developers that serve individuals, families, seniors, the homeless, and persons with special needs.

### Current Conditions

In 2019, Redmond received a grant to develop a Housing Action Plan. The Plan includes an analysis of the existing housing stock, current and projected housing needs, and opportunities for housing. The Plan also conducted outreach with community members, special stakeholder groups, and housing specialists, to gain a better understanding of existing conditions for housing in Redmond.

The information provided in this section was first provided in the Redmond Housing Needs Assessment is available on the City of Redmond [website](#).

### Household Size and Count

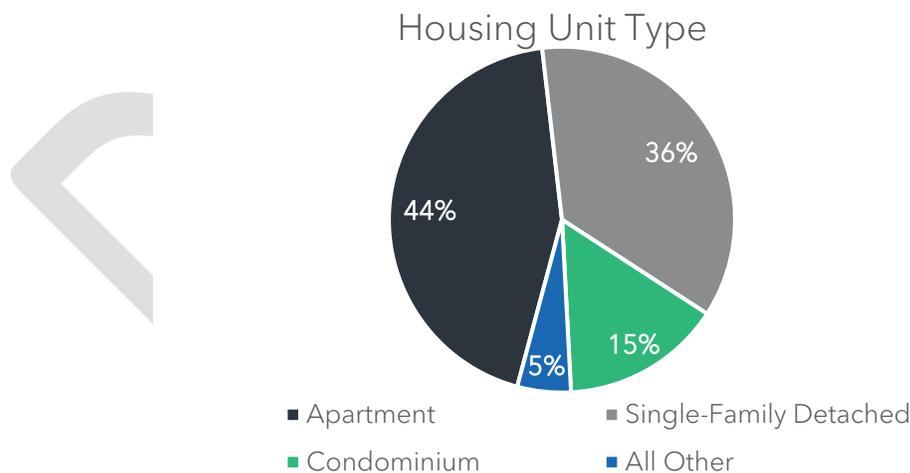
Two-person households represent the most common household size within Redmond. Redmond’s 32 percent of two-person households is the lowest of all city comparisons within the eastside collection of jurisdictions (Table 1). Redmond has the highest share of households with over three persons (42 percent) in comparison to neighboring cities.

**TABLE 1 - HOUSEHOLD SIZE AND COUNT, REDMOND, NEIGHBORING CITIES, 2014-2018<sup>1</sup>**

Geography	1-Person Households	2-Person Households	3-Person Households	4-or-More Person Households
Redmond	26%	32%	16%	26%
Bellevue	26%	34%	15%	25%
Issaquah	29%	34%	16%	21%
Kirkland	28%	37%	16%	19%

### Redmond’s Housing Units are Mainly Single-Family Detached and Multifamily

In 2019, the City of Redmond had 31,316 housing units. Most of the housing units were Apartments (13,721), Single-Family Detached (11,235), and Condominiums (4,550) (Figure 1).



**FIGURE 1 - REDMOND HOUSING TYPES, 2019<sup>2</sup>**

### Redmond Has the Highest Share of Rental Units in Comparison to Neighboring Cities

<sup>1</sup> Sources: U.S. Census Bureau, 2014-2018 ACS 5-Year Estimates. Redmond Housing Action Plan Needs Assessment. EcoNorthwest.

<sup>2</sup> Sources: King County Assessments, 2019

Redmond has the highest percent of renter-occupied units in comparison to Bellevue, Issaquah, and Kirkland (Figure 2). This is likely attributable to Redmond's continual decrease in home ownership rates, from 58 percent in 1990 to 50 percent between 2014 and 2018.<sup>3</sup> Most new housing built in Redmond has been multifamily housing and this housing tends to be rental units. In fact, 86 percent of people rent an apartment rather than own in Redmond and from 2010-2019, 64 percent of the new units built were multifamily rentals.<sup>4</sup>

Redmond's share of renter and owner-occupied units is split evenly, giving the city the lowest share of owner-occupied units in comparison to neighboring cities. Redmond's households with incomes below \$150,000 primarily rent rather than own. Ownership opportunities are generally in the less dense periphery of city limits. Rental opportunities are generally in the denser urban centers.

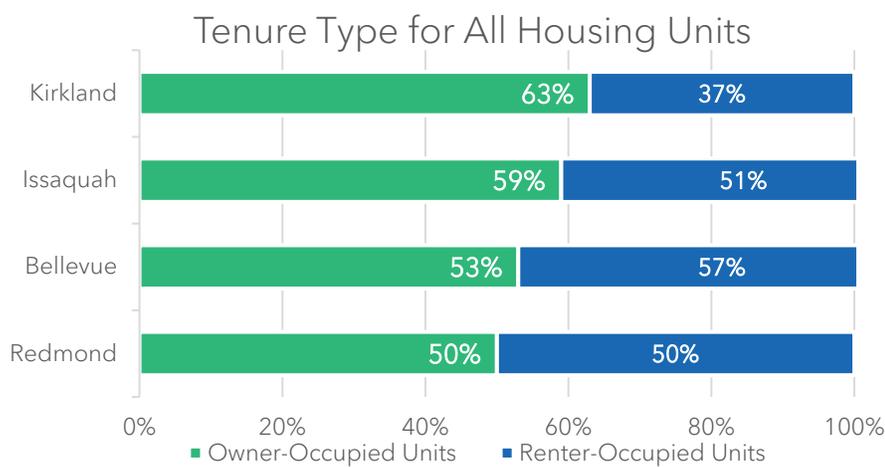


FIGURE 2 - TENURE, OCCUPIED UNITS, REDMOND, BELLEVUE, ISSAQUAH, AND KIRKLAND, 2014-2018<sup>5</sup>

### Cost Burdened

The U.S. Department of Housing and Urban Development (HUD) guidelines indicate that a household is cost burdened when they pay more than 30 percent of their gross household income for housing and severely cost burdened when they pay more than 50 percent of their gross household income for housing. About 24 percent of Redmond's households are cost burdened overall (Table 2).<sup>6</sup>

<sup>3</sup> Sources: U.S. Census Bureau, 2014-2018 ACS 5-Year Estimates; ARCH, 2011.

<sup>4</sup> Sources: U.S. Census Bureau, 2014-2018 ACS 5-Year Estimates; OFM, 2019; and Decennial Census, 2010.

<sup>5</sup> Source: U.S. Census Bureau, 2014-2018 ACS 5-year Estimates.

<sup>6</sup> Source: CHAS, 5 year 2012-2016

TABLE 2 - COST-BURDENED HOUSEHOLDS BY TENURE, 2014-2018

Tenure	Cost Burdened	Severely Cost Burdened	Total Cost Burdened
Renter	7.3%	6.5%	13.8%
Homeowner	6.4%	3.4%	9.8%

Redmond's renters are more likely to be cost burdened or severely cost burdened than homeowners. Renters are more likely to be cost burdened than homeowners because renters tend to have lower incomes.

Cost burdening for owner-occupied households is not terribly common because mortgage lenders typically ensure that a household can pay its debt obligations before signing off on a loan. However, cost burdening can occur when a household secures a mortgage and then sees its income decline.

### Jobs to Housing Ratio

The jobs-to-housing ratio is another metric for describing the availability of housing for local workers. King County uses the jobs-to-housing assessment to improve the jobs/housing balance within the county, and as a factor in determining the allocation of residential and employment growth for different jurisdictions.

Redmond has a higher jobs-to-housing ratio compared to neighboring cities (Table 3).

TABLE 3 - REDMOND JOBS TO HOUSING RATIO, 2018<sup>7</sup>

Geography	Jobs-to-Housing Ratio
Redmond	3.4
Bellevue	2.5
Issaquah	1.6
Kirkland	1.9
King County	1.5

### Housing Supply

Using population forecasts from the Washington State Office of Financial Management (OFM), the Puget Sound Regional Planning Council (PSRC), and selected Census information we can estimate both the current underproduction and future housing need for Redmond.

Combining the existing underproduction units and future housing need, Redmond has a need for about 8,897 units (Table 4). This number should be considered the minimum number of additional housing units needed to support the expected population growth in 2050.

<sup>7</sup> Sources: Puget Sound Regional Council, Washington State Office of Financial Management (OFM).

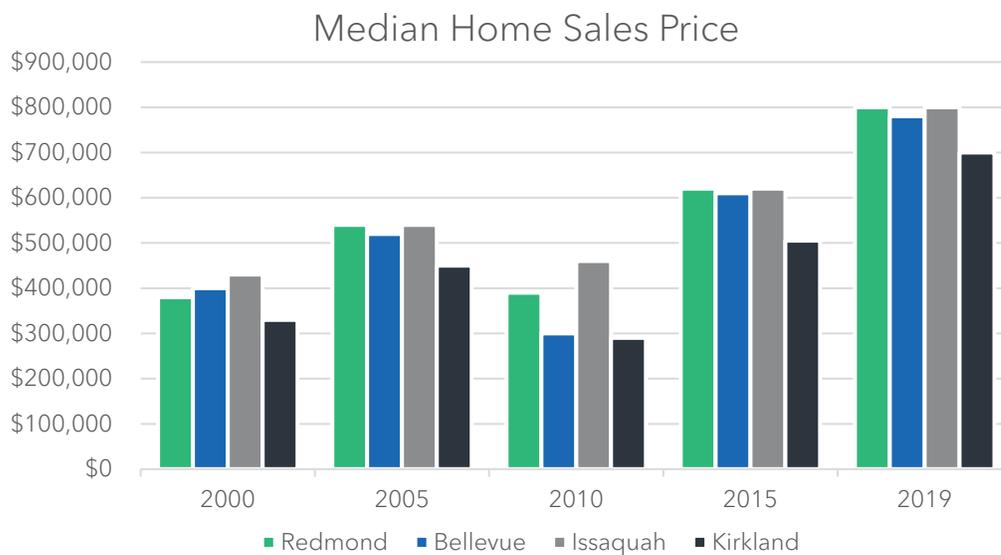
TABLE 4 - HOUSING NEED AND GAP ANALYSIS FOR REDMOND BY 2040<sup>8</sup>

City	Current Estimated Underproduction, Units	Future Housing Need, Units	Total Housing Need, Units
Redmond	309	8,589	8,897

## Trends Analysis

### Housing Cost Trends: Median Sales Price Doubled

Redmond median home sale price has more than doubled since 2000, rising from \$378,595 in 2000 to \$823,300 in 2019.<sup>9</sup> This increase in Redmond’s median home sale price represents a four percent compound annual growth rate which is similar to Kirkland’s and a little higher than Bellevue and Issaquah’s rates. However, the cities of Bellevue and Issaquah have had relatively similar median home sales prices as Redmond between 2015 and 2019, while Kirkland’s median home sales price is currently closer to \$700,000 (Figure 3).



<sup>8</sup> Source: ECONorthwest calculation, Washington Office of Financial Management, 2019 and PSRC, 2019.

Notes: Current estimated underproduction provides the number of the existing shortage of housing units from the past 10 years based on household formation. Future housing need shows the estimated housing demand up to 2040. The “total units” number is the sum of the current estimated underproduction and future housing needs.

<sup>9</sup> Source: King County Assessor’s Office, 2020.

## FIGURE 3 - HOUSING COST TREND OF MEDIAN SALES PRICE, REDMOND, BELLEVUE, ISSAQUAH, AND KIRKLAND, 2000-2019<sup>10</sup>

### Average Rent has Remained Above 100 Percent AMI Over Last Few Decades

In addition to home sale prices, rental rate changes across time should be recognized. Over the last 20 years, Redmond's average apartment pricing has been higher than the King County average, but lower than that of Seattle and Bellevue. Redmond's average rent in 2019 was \$2,256, a number that is not far off from its rent prices of the last few decades but is much higher than the \$570 to \$1,519 affordable range for household earning 30-80 percent of AMI—a group comprising 28 percent of Redmond's population.

### Policy Considerations

Several themes have been identified for Redmond 2050, and will be woven into each element throughout the process:

- Resiliency/Recovery,
- Equity & Inclusion,
- Technology Forward ("Smart City"), and
- Sustainability.

These themes should be considered in identifying policy updates. The need to achieve equitable outcomes should be an important consideration in the development of housing policy and advance distributional, process, and cross-generational equity.

**Distributional equity**—Fair and just distribution of benefits and burdens to all affected parties and communities across the community and organizational landscape. This should include providing for a mix of incomes and housing choices throughout the community. Currently renters are concentrated in Urban Centers with limited ownership opportunities outside of Redmond's neighborhood. Members of the community should have housing choices throughout the community and a balance of tenure, income, and housing types should be available throughout Redmond.

**Process equity**—Inclusive, open and fair access by all stakeholders to decision processes that impact community and operational outcomes. Process equity relies on all affected parties having access to and meaningful experience with civic and employee engagement, public participation, and jurisdictional listening. Process equity should be a goal for all regulatory and policy updates.

**Cross-generational equity**—Effects of current actions on the fair and just distribution of benefits and burdens to future generations of communities and employees. Opportunities for entry-level homeownership and missing middle housing should be a priority to provide opportunities for wealth building and cross generational transfer of wealth to community members for whom that has been historically out of reach.

<sup>10</sup> Source: King County Assessor's Office, 2020. \*Note: All values are in 2019 inflation-adjusted dollars.

## Existing Conditions

# Transportation

### Introduction

The Comprehensive Plan Transportation Element describes the future vision for mobility to and through Redmond and the City's policies to achieve that vision. The Transportation Element is supplemented by the Transportation Master Plan, a functional plan that describes how the City will achieve the transportation vision in additional detail.

Redmond's 2030 transportation vision is: *"Redmond's 2030 transportation system supports Redmond's vision for vibrant urban centers in Downtown and Overlake, connected neighborhoods and a sustainable community. Movement of people, goods, and freight both locally and regionally is provided by street, light rail, transit, pedestrian, and bicycle systems that are complete and fully integrated."*

As Redmond continues to grow, mobility in and around Redmond will depend increasingly on travel modes other than single-occupancy vehicles. Redmond's transportation plans and policies support the land use vision and intersect with economic vitality and other areas of the Comprehensive Plan. Those connections will be highlighted and referenced throughout this report.

### State & Regional Planning Context

#### Growth Management Act Requirements

Transportation is one of several required elements of comprehensive planning under the Growth Management Act. RCW 36.70A.070(6) requires that the transportation element include:

1. Land use assumptions used when estimating travel;
2. Estimated traffic impacts to state-owned facilities;
3. An inventory of facilities and service needs;
4. Level of service standards for transportation facilities;

### Fast Facts

- Redmond operates and maintains 197 miles of streets, 107 traffic signals, 1,857 streetlights, 229 miles of sidewalks and 72 miles of bicycle lanes.
- Redmond will have four light rail stations by 2024, with an expected 43,000 - 52,000 daily riders on East Link by 2026.
- Transit ridership in Redmond has tripled since 2004.
- The Southeast Redmond parking garage will have more parking stalls (1,400) than the rest of Redmond's park-and-rides combined.
- Three new pedestrian-bicycle bridges over roads and water will open between 2020 and 2024.
- Redmond's pavement condition is worsening as infrastructure ages.
- Downtown Redmond has 1,156 on-street parking stalls and over 12,000 off-street stalls.

5. Traffic forecasting based on the land use plan;
6. A financial plan based on needs identified in the comprehensive plan and potential funding sources;
7. Intergovernmental coordination efforts;
8. Demand-management strategies; and,
9. A pedestrian and bicycle component.

Redmond fulfills several of the required elements in the Transportation Master Plan, which is adopted by reference as part of the Redmond Comprehensive Plan.

### Regional Coordination

Redmond's transportation plans must also be consistent with policies in the Puget Sound Regional Council's VISION 2050 and PSRC's Regional Transportation Plan. From VISION 2050: *"The region has a sustainable, equitable, affordable, safe, and efficient multimodal transportation system, with specific emphasis on an integrated regional transit network that supports the Regional Growth Strategy and promotes vitality of the economy, environment, and health."* As the federally designated Metropolitan Planning Organization (MPO) and Regional Transportation Planning Organization (RTPO), PSRC administers federal transportation funds throughout in King, Snohomish, Pierce, and Kitsap counties.

Like other parts of the Redmond Comprehensive Plan, the Transportation Element and Transportation Master Plan must also be consistent with the King County Countywide Planning Policies for transportation, which in turn are consistent with VISION 2050 and the Regional Transportation Plan.

This regional coordination also includes ongoing collaboration with the Washington State Department of Transportation (WSDOT) regarding state highways, which in Redmond are SR 202 (Redmond Way) and SR 520. Redmond also has interests in I-405 and I-90 planning since those highways are major travel corridors in the region and how they operate affects Redmond.

King County Metro Transit and Sound Transit provide service to Redmond on streets owned and maintained by the City, requiring ongoing collaboration to best serve people traveling to and through Redmond. Over the last decade, transit ridership has experienced robust growth, with the central Puget Sound region being one of only four regions across the country with consistent growth in transit boardings. The City will continue to work closely with Sound Transit to bring light rail service to Overlake and Downtown, and with King County Metro to improve bus service into and within the community.

Finally, Redmond coordinates closely with neighboring jurisdictions to ensure that the transportation system functions across city boundaries. For example, Redmond and Kirkland share a long border along 132<sup>nd</sup> Avenue NE, a street that Kirkland owns and operates but is also the sole access for Redmond residents on the east side of the street. Redmond and Bellevue share ownership of 148<sup>th</sup> Avenue NE and Bel-Red Road in Overlake.

### Transportation Funding

Redmond funds its transportation system with a mix of federal, state, local, and private funds subject to various requirements and restrictions. This makes the overall financial plan complex and subject to uncertainty as regulatory and economic conditions evolve. In 2019-2020, Redmond's budget

allocated about \$44 million to transportation capital projects and about \$21 million to transportation operations. While the mix of funding is not paramount when establishing the transportation vision, it is important to keep in mind when drafting policies and implementing programs and projects that achieve the vision.

## **Local Planning & Regulatory Context**

The transportation context in Redmond has evolved over the past few decades as the city has grown from a semi-rural bedroom community to an employment center with emerging urban transportation characteristics. Today, Redmond's transportation system ranges from a well-developed system of streets and pathways in Downtown to more suburban development patterns in single-family neighborhoods.

### **Transportation Strategic Direction**

Redmond's Transportation Master Plan, last updated in 2013, is organized around five strategies for achieving the vision quoted earlier in this report. These strategies and how they support the vision are shown in Figure 2.

FIGURE 1 TRANSPORTATION MASTER PLAN STRATEGIES



Redmond Transportation Master Plan, 2013

### Redmond Regulations

The strategies above are implemented through regulations in the Redmond Zoning Code. These regulations generally fall into three categories:

1. Requirements for what physical improvements must be built as part of development;
2. Requirements for how such improvements must be built; and,
3. Requirements concerning non-capital improvements, such as for programs encouraging use of non-single-occupant vehicle modes of travel.

Regulations for *what* physical improvements must be built can be found in the Redmond Zoning Code, its appendices, and the Transportation Master Plan. These improvements may include streets (including pedestrian and bicycle facilities and on-street parking), multi-use paths, and off-street parking. Requirements for *how* such improvements are constructed are found in those same documents, as well as the Redmond Standard Specifications and Details book published each year. These documents all contain design standards for the streets, pathways, and other infrastructure that

constitute Redmond's transportation system. Regulations for non-capital improvements are also found in the Redmond Zoning Code.

### Redmond Partnerships

As noted in the State and Regional Planning section of this report, Redmond is a partner with WSDOT, King County Metro Transit, and Sound Transit in operating facilities and services that make it possible to travel in and around Redmond. The City also partners with neighboring jurisdictions to coordinate street, pathway, and transit plans that have effects beyond any one city's boundaries.

## Current Conditions

### Inventory of Existing Conditions

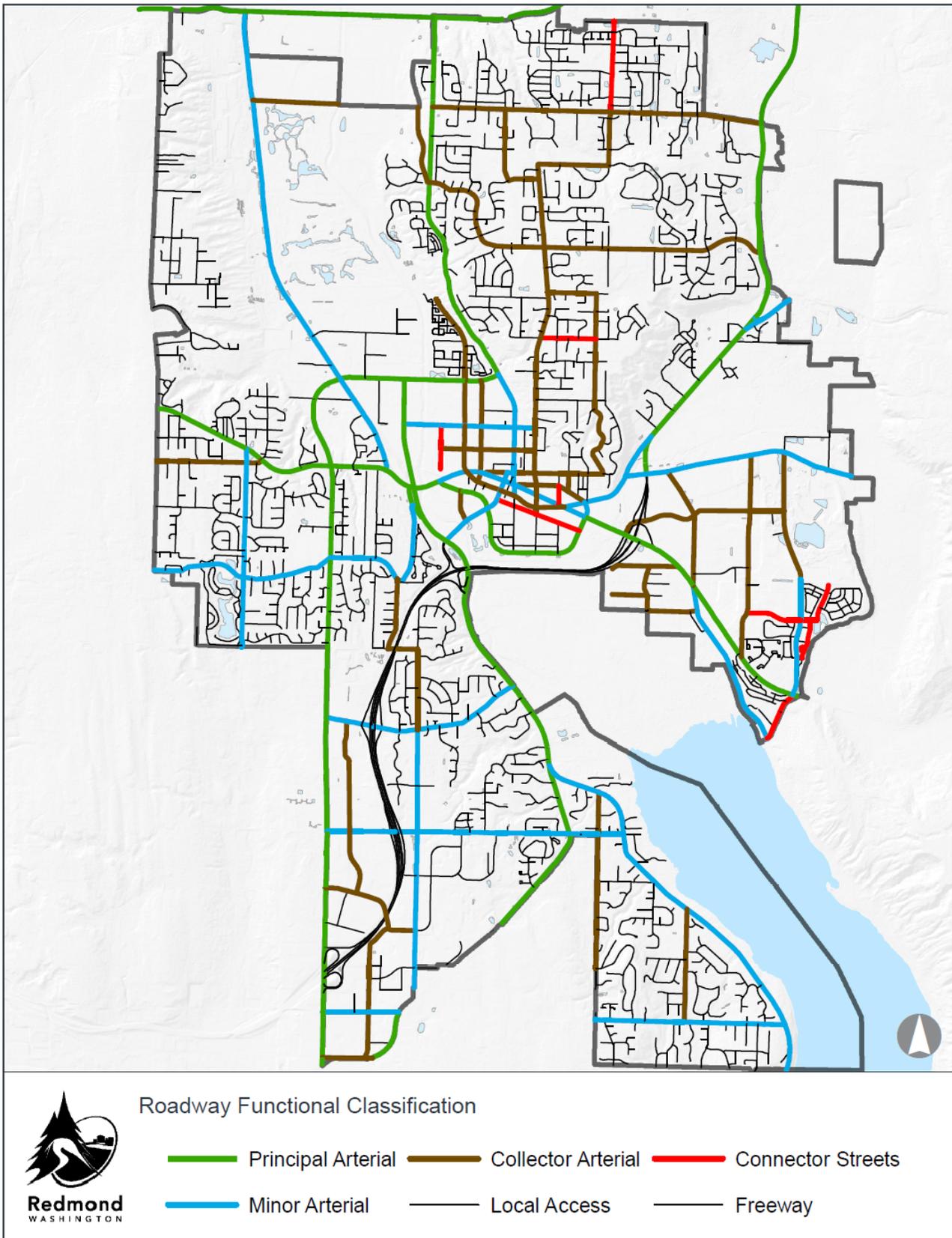
#### Street System

Redmond's street system comprises 197 centerline miles of streets ranging from the SR 520 freeway that supports regional mobility to local streets that provide property access. Table 1 summarizes Redmond's street system. Figure 3 shows a map of Redmond's street system.

TABLE 1 - REDMOND STREET SYSTEM

Functional Class	Centerline Miles
Principal Arterial	17.7
Minor Arterial	20.5
Collector Arterial	23.7
Connector	2.8
Local Access	123.9
Freeway	8.0

FIGURE 2 REDMOND STREET SYSTEM MAP



## Transit System

King County Metro Transit and Sound Transit operate public transit service in Redmond. Table 2 summarizes current transit service in Redmond. Figure 4 shows a map of transit service in Redmond.

**TABLE 2 - TRANSIT SERVICE IN REDMOND**

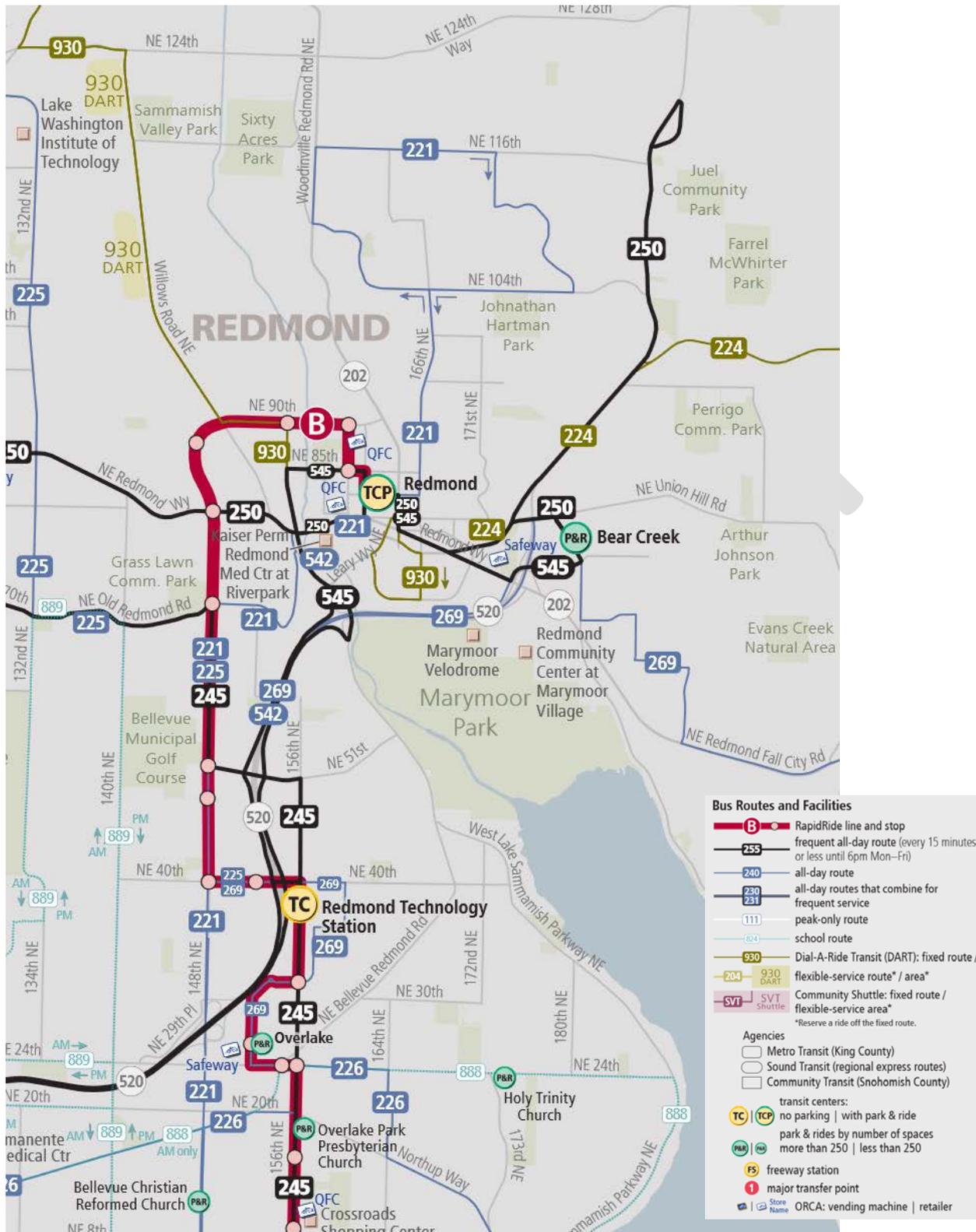
Route <sup>1</sup>	Service Area	Type <sup>2</sup>	COVID-19 Status <sup>3</sup>
<b>B</b>	Redmond TC-Bellevue TC	RapidRide	Full
<b>224</b>	Duvall-Novelt Hill-Redmond TC	DART all-day	Full
<b>930</b>	Totem Lake-Redmond TC	DART all-day	Full
<b>221</b>	Ed Hill-Bellevue College	All-day	Reduced
<b>245</b>	Kirkland TC-Overlake-Eastgate	Frequent all-day	Reduced
<b>269</b>	Issaquah-SE Redmond-Overlake	All-day	Reduced
<b>225</b>	Kenmore-Overlake/RTS	All-day	Reduced
<b>226</b>	Bellevue TC-Overlake-Eastgate	All-day	Reduced
<b>250</b>	Avondale-Kirkland-Bellevue TC	Frequent all-day	Reduced
<b>ST 542</b>	Redmond TC-Green Lake	All-day	Reduced
<b>ST 545</b>	SE Redmond-Downtown Seattle	Frequent all-day	Reduced
<b>232</b>	Duvall-Redmond TC-Bellevue TC	Peak-hour	Suspended
<b>249</b>	Idylwood-Overlake-Bellevue	All-day	Suspended
<b>268</b>	SE Redmond-Downtown Seattle	Peak-hour	Suspended
<b>931</b>	UW Bothell-Woodinville-Redmond	All-day	Suspended
<b>ST 541</b>	Overlake-U District	Peak-hour	Suspended
<b>ST 544</b>	Overlake-S Lk Union	Peak-hour	Suspended

<sup>1</sup>"ST" means "Sound Transit"

<sup>2</sup>"Frequent" means 15-minute service frequency

<sup>3</sup>Sound Transit and King County Metro have temporarily reduced or suspended service on some routes due to the COVID-19 pandemic. "Full" means that the transit agency is operating all or almost all service in place prior to the COVID-19 pandemic. Although service reductions are expected to be temporary, the reduced service levels accurately represent existing conditions and so are reported here.

FIGURE 3 REDMOND AREA TRANSIT



Route 249 serving Idylwood and route 931 serving NE 124<sup>th</sup> St. and Red-Wood Road are currently suspended due to COVID-19 and are not shown on the map.

Metro and Sound Transit also operate park-and-ride lots in Redmond, summarized in Table 3 below.

**TABLE 3 – REDMOND PARK-AND-RIDES**

<b>Park-and-Ride</b>	<b>Location</b>	<b>Owner</b>	<b>Parking Stalls</b>
Bear Creek P&R	7760 178 <sup>th</sup> Pl. NE	King County Metro	283
Overlake Village P&R	2650 152 <sup>nd</sup> Ave. NE	King County Metro	203
Redmond P&R	16201 NE 83 <sup>rd</sup> St.	King County Metro	377
Redmond Technology Station	15590 NE 36 <sup>th</sup> St.	Sound Transit	*
Southeast Redmond Station	176 <sup>th</sup> Ave. NE & NE 70 <sup>th</sup> St.	Sound Transit	*

\* Redmond Technology Station (320 stalls) and Southeast Redmond Station (1,400 stalls) will open with light rail service in 2023-24

### Pedestrian System

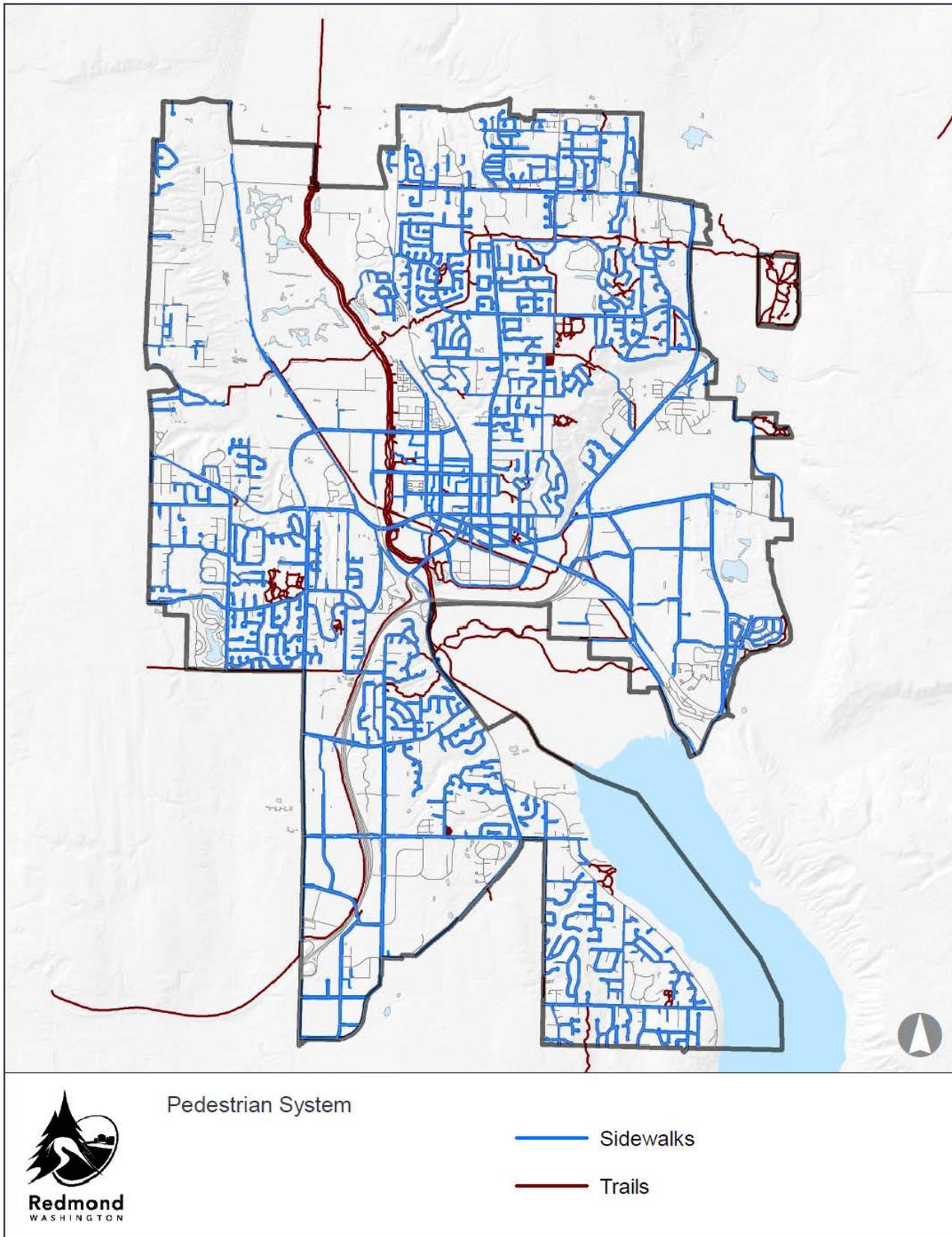
Redmond's pedestrian system comprises 278 miles of pedestrian facilities, including sidewalks, paved trails, and soft-surface trails. Table 4 summarizes Redmond's pedestrian system by facility type. Figure 5 shows a map of Redmond's pedestrian system.

**TABLE 4 – REDMOND PEDESTRIAN SYSTEM**

<b>Facility Type</b>	<b>Miles</b>
Sidewalk	228.9
Trail - Paved (City)	15.7
Trail - Paved (County)	3.1
Trail - Paved (State)	3.0
Trail - Soft (City)	21.6
Trail - Soft (County)	3.6
Trail - Paved or Soft (Private)	1.9

\* SOFT TRAILS DO NOT COMPLY WITH TRANSPORTATION ADA REQUIREMENTS AND AS SUCH, ARE NOT TECHNICALLY A PART OF THE TRANSPORTATION SYSTEM.

FIGURE 4 REDMOND PEDESTRIAN SYSTEM MAP



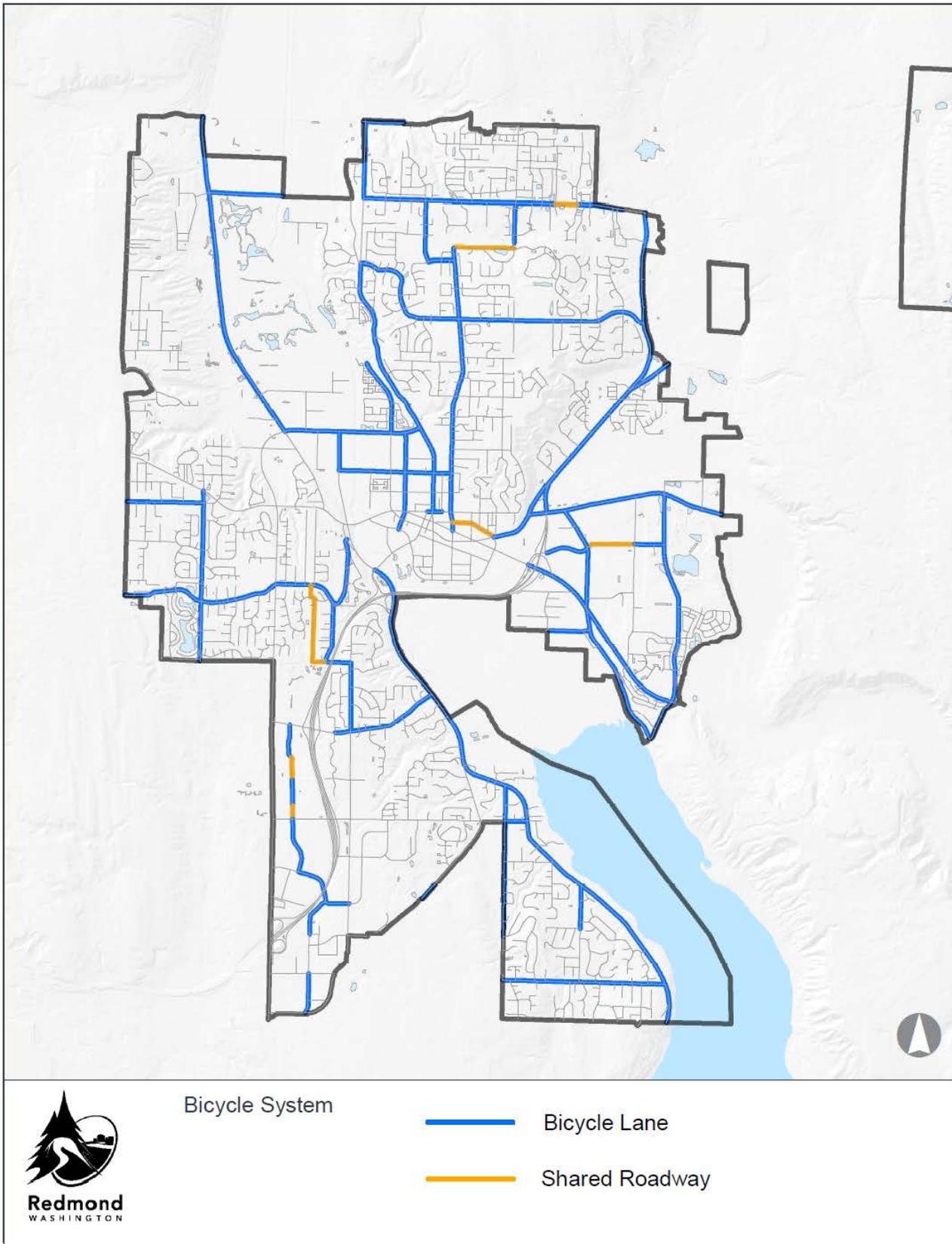
## Bicycle System

Redmond's bicycle system comprises 98 miles of bicycle facilities, including bicycle lanes, shared lanes, and multiuse paths/trails that are also counted as part of the pedestrian system. Table 5 summarizes Redmond's bicycle system by facility type. Figure 6 shows a map of Redmond's bicycle system.

TABLE 5 - REDMOND BICYCLE SYSTEM

Facility Type	Miles
Bicycle Lane	71.5
Shared Lane (Sharrow)	4.5
Trail - Paved (City)	15.7
Trail - Paved (County)	3.1
Trail - Paved (State)	3.0

FIGURE 5 REDMOND BICYCLE SYSTEM MAP



## Freight Access and Distribution

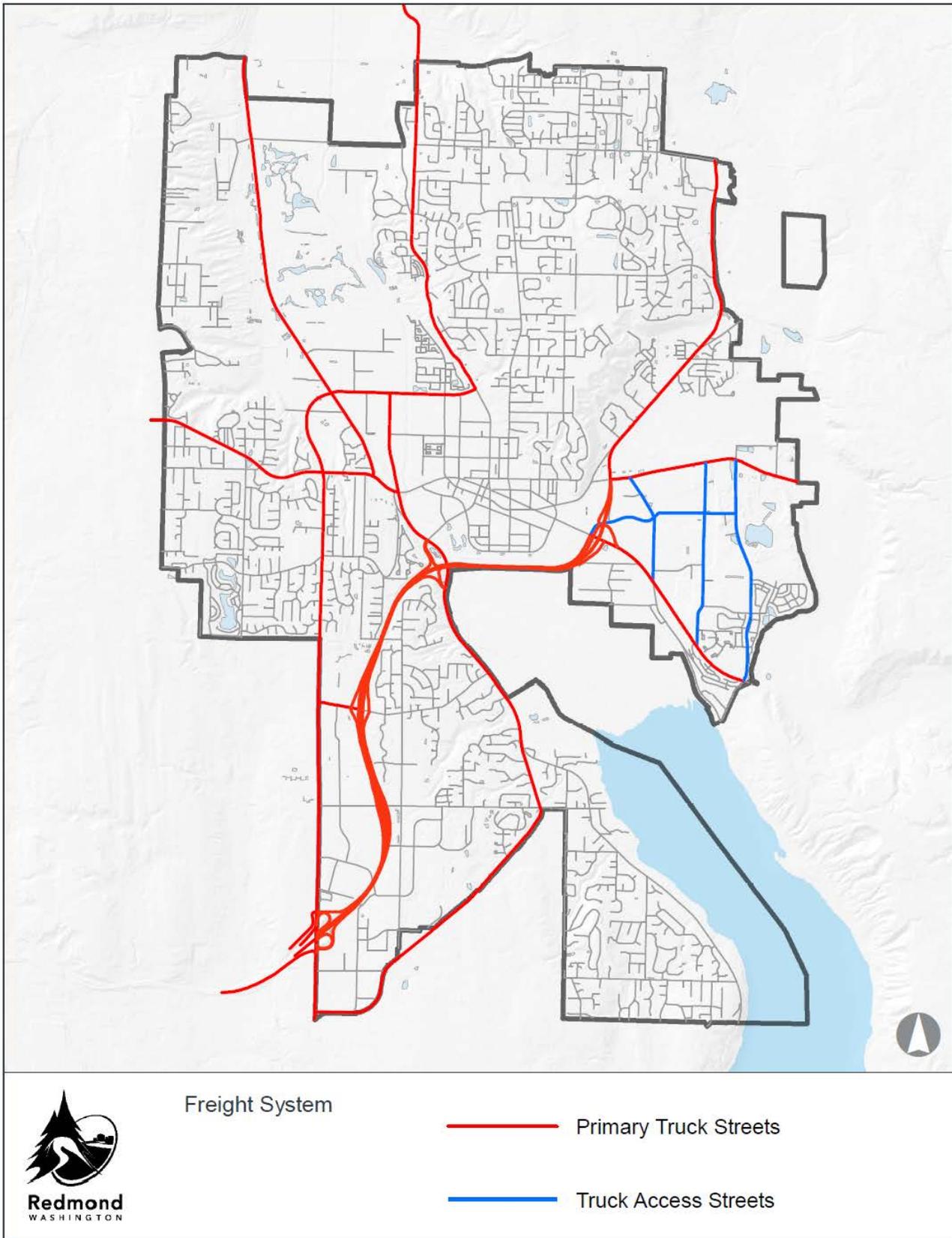
Redmond maintains a 36-mile two-tier freight route system that includes “primary truck streets,” “truck access streets,” and the SR 520 freeway. Primary truck streets accommodate through truck traffic in Redmond. They are arterials that directly connect with regional roadways like SR 520 or that currently have high volumes of trucks and are predicted to have high volumes of trucks in the future. Truck access streets connect the major industrial and commercial area in the Southeast Redmond neighborhood with primary truck streets. Truck access streets support access and movement of trucks between manufacturing companies and primary truck streets, which are important to the economic vitality of manufacturing companies. Designating truck access streets is not meant to increase truck volumes on those streets, nor intended to increase the speed of trucks on truck access routes.

Table 6 summarizes Redmond’s freight route system by facility type. Figure 7 shows a map of Redmond’s freight route system.

**TABLE 6 - REDMOND FREIGHT SYSTEM**

<b>Facility Type</b>	<b>Centerline Miles</b>
Primary Truck Street	20.8
Truck Access Street	4.1
SR 520 (including ramps)	10.9

FIGURE 6 REDMOND FREIGHT SYSTEM MAP



## Parking

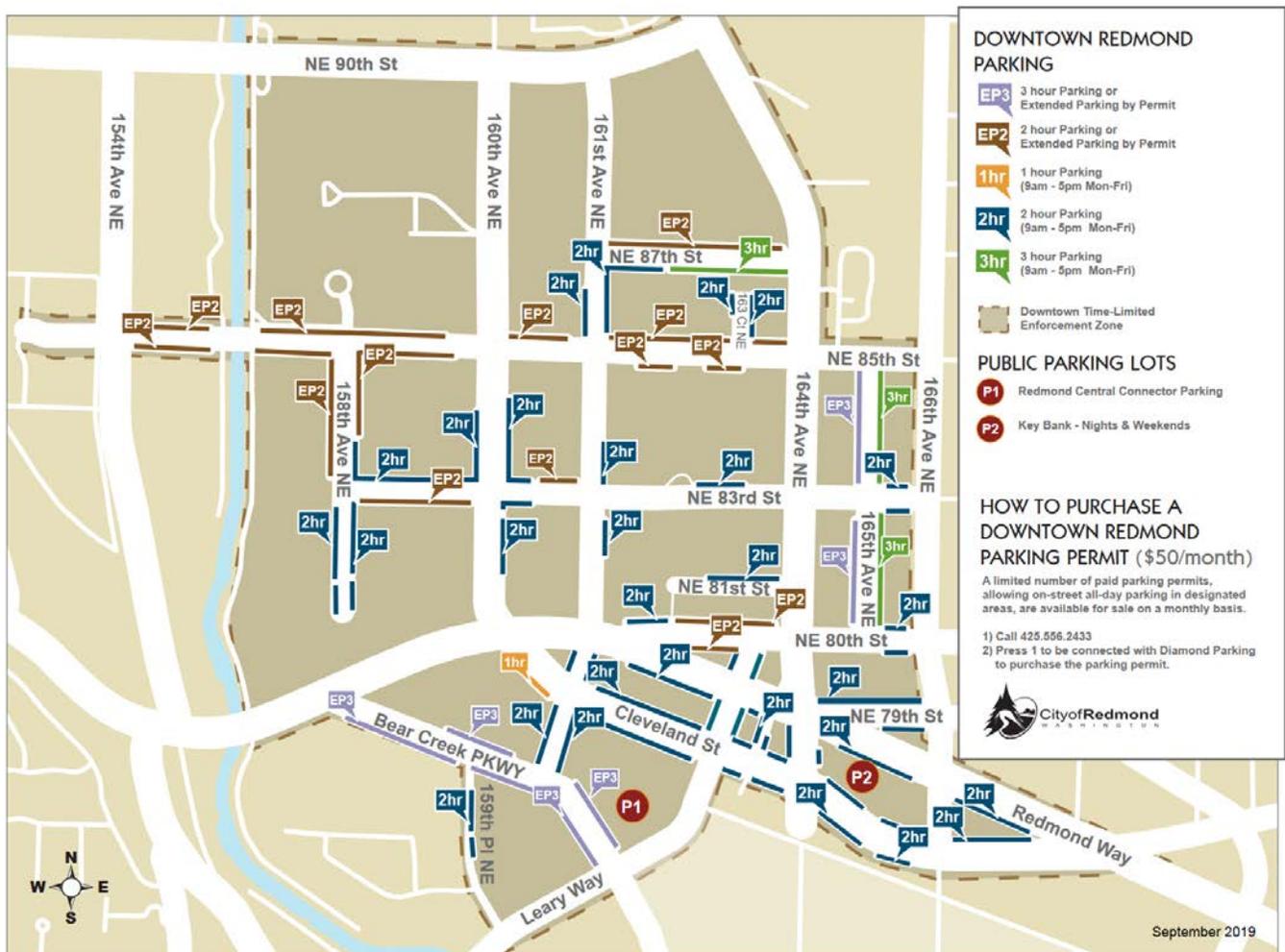
Outside of Downtown Redmond, Redmond’s public parking supply consists almost entirely of on-street parking. This parking is distributed throughout the city, with the majority being on-street parking on local streets in residential neighborhoods. In most parts of Redmond, on-street parking supply far exceeds demand. Redmond does not track the total amount of on-street parking citywide. Downtown Redmond is an exception, where the City has begun to manage the on-street parking through time limits and all-day permits to bring supply and demand into better balance in high-demand areas.

Information about the parking supply in Downtown is summarized in Table 7. In Table 7, “commercial” means a lot or garage with a mixture of different shared of single use types; “city” means parking for City-related uses and services; “civic” means parking for civic, county, or municipal-related uses like schools, fire stations, community centers, and the library; “public” means park-and-ride and publicly-managed free or pay lots; “private” means not for public use and access may be restricted. Figure 8 shows a map of where the City manages the on-street parking supply.

**TABLE 7 - DOWNTOWN REDMOND PARKING**

Type	Stall Count
On-Street	1,156
Off-Street - Commercial	9,882
Off-Street - City	613
Off-Street - Civic	433
Off-Street - Public	613
Off-Street - Private	524

FIGURE 7 DOWNTOWN ON-STREET PARKING MANAGEMENT MAP



## Inventory of Programs

### Transportation Demand Management

The City sponsors a robust transportation demand management (TDM) program to expand mobility and access, improve travel choices, and support continued growth and development. TDM includes strategies that change travel behavior - how, when, and where people travel - in order to increase transportation system efficiency and achieve specific objectives, such as improved mobility, road and parking cost savings, increased safety, energy conservation, and pollution emission reductions (Victoria Transport Policy Institute).

Redmond’s programs include:

- GoRedmond. The GoRedmond program provides incentives and other resources for commuters, employers, and schools, helping them make travel choices that benefit them and the community. Redmond’s large employers have robust programs of their own, substantially reducing single-occupant vehicle travel in favor of other modes.

- Transportation Management Programs. Since the mid-1980s, all new major commercial developments in Redmond have been required to implement programs that reduce single-occupancy vehicle travel. Some multifamily developments also require transportation management programs when developers seek reduced off-street parking. Elements of these programs include on-site information and resources for alternative travel choices, designated carpool and vanpool parking spaces, and ongoing monitoring and measurement of program success.

## Regional Transportation

Redmond participates in a variety of statewide and regional forums to advance its transportation interests in the region. Redmond's regional interests include:

- SR 520, I-405 corridors, and I-90 corridors. Redmond supports completion of multimodal improvements throughout these corridors to support regional mobility.
- Eastside arterials. Redmond shares key arterials with neighboring jurisdictions that often function as alternatives to freeway use, subjecting arterials to significant regional pass-through traffic. Redmond's interest is in connecting regional destinations while ensuring that arterial corridors are compatible in scale with the City's land use and community character goals.
- Regional trails. Redmond is connected to an exceptional regional trails network and works with partners to connect and improve these trails to improve mobility for those walking, rolling, and biking.
- Public transit. As noted elsewhere, Redmond partners with Metro and Sound Transit to deliver public transit service in Redmond. The City advocates with both agencies on both policy and service decisions. Both Metro and Sound Transit have governing or advisory bodies that include local elected officials. Redmond currently has a councilmember appointed to the Regional Transit Committee, which advises the King County Council on transit-related policy.
- Transportation funding. The City advocates for transportation funding to support capital projects - such as freeway tolling that supports capital improvements in freeway corridors - as well as system maintenance.
- Environmental sustainability. Redmond's pursuit of environmental sustainability goals is enhanced by working regionally. Specific issue areas include alternative fuels that reduce pollution from ozone, particulates, and greenhouse gases; and water quality improvements.
- Parking. Parking in Redmond is a regional issue in that regional entities like transit agencies control some of the off-street parking supply in Redmond. Transit agencies are beginning to manage parking through pricing, a strategy supported in regional planning documents.
- Technology. Transportation technology is rapidly evolving, as are the potential applications of technology to improving mobility. For example, Redmond together with other jurisdictions is implementing technology like Intelligent Transportation Systems and adaptive signals to use the existing system efficiently. As more devices become more connected, Redmond and others will have the ability to gather and analyze large amounts of data to make both operational and policy decisions. This ability has privacy and ethical implications that must be considered.

## Maintenance and Operations

The Traffic Operations, Safety, and Engineering Division, together with the Street Maintenance Division, are responsible for the day-to-day maintenance and operations of Redmond's transportation system. Key responsibilities include:

- Pavement maintenance. Redmond owns and maintains 191 centerline miles of pavement, including 62 miles of arterials and 127 miles of local and connector streets. The performance target for pavement management is an average pavement condition index score above 70, out of a possible 100. The current average score is 65, down from 79 in 2013. Declining condition scores are due to the aging of Redmond's street network, utility- and construction-related trenching operations, and increased vehicular traffic - especially heavy trucks and buses.
- Bridge inspection and repair. Redmond owns 19 bridges and regularly inspects and repairs them to maintain structural integrity and safety. The NE 95<sup>th</sup> Street Bridge over Bear Creek has structural deficiencies that make it susceptible to earthquake damage.
- Sidewalks, curbs, and gutters. Redmond owns 229 miles of sidewalks. Some sidewalks are in poor condition, often due to heaving caused by tree roots. The City does not have comprehensive sidewalk condition data. Along with replacing sidewalks in poor condition, Redmond upgrades sidewalk curb ramps to be compliant with the Americans with Disabilities Act (ADA). Redmond owns about 5,000 ramps. While ramps were generally ADA compliant when constructed, approximately 80 percent are not compliant with current ADA standards, including locations where there should be a ramp but there is not a ramp.
- Traffic signal and communication devices. Redmond owns 107 traffic signals. The signal and communications devices for these traffic signals have a useful life ranging from five to 30 years. There is currently no systematic program to replace electronic traffic signal devices. Equipment replacements are currently completed as failures occur or as part of other capital improvement projects.
- Intelligent Transportation Systems. Redmond uses Intelligent Transportation Systems (ITS) to improve traffic safety and mobility. ITS is a broad category and includes web-based traffic cameras, traffic signal coordination, and dynamic messaging signs. In Redmond, ITS information is fed both to the public (traffic cameras) and the Traffic Management Center inside Redmond city hall.
- Streetlights. Redmond owns 1,857 streetlights. Redmond has transitioned all of its streetlights to LED technology, extending the life of the lamp and reducing energy and maintenance costs. City-owned streetlights are equipped with technology allowing staff to control their operations remotely. Puget Sound Energy owns the streetlights in large parts of Redmond (especially on local access streets), and those streetlights are not included in the total above.
- Street upkeep. City staff conduct minor street repairs, regular street sweeping, snow/ice-related upkeep, landscape management, and inspection and repair of stormwater facilities like catch basins, underground vaults, and ponds.

## Level of Service Analysis

Redmond assesses the performance of its transportation system using nine dashboard measures described in Figure 9. The most recent information for each measure is shown in Figures 10-24.

FIGURE 8 TRANSPORTATION DASHBOARD MEASURES



**7. Safety**

Safety is expressed as the per-capita traffic-related injury and fatality rate for Redmond. Safety is a fundamental goal for the City as it builds and maintains the transportation system, and Redmond seeks to reduce its already low rates of traffic-related injuries.

**Desired trend: decreasing injury rate**

**8. Environment**

This measure has two components: air quality and water quality. Air quality is expressed as compliance with federal air quality standards for particulates, and water quality is expressed as the percent of City right-of-way that is subject to basic water quality treatment. The environment measure indicates whether the City is designing infrastructure to be "clean and green"—healthy for humans and our surrounding ecosystems.

**Desired trend: increasing**

**9. Street Preservation**

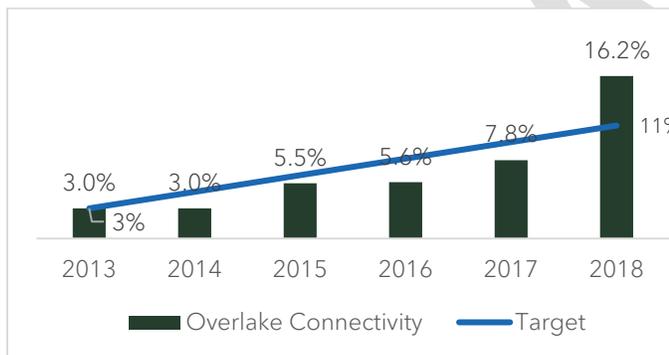
Adequate pavement condition is essential to the proper functioning of the roadway network for private travel and for freight operations. This is reported as the average Pavement Condition Index (PCI) for arterial lane mileage within the Redmond city limits.

**Desired trend: maintaining**

CITY OF REDMOND, 2020

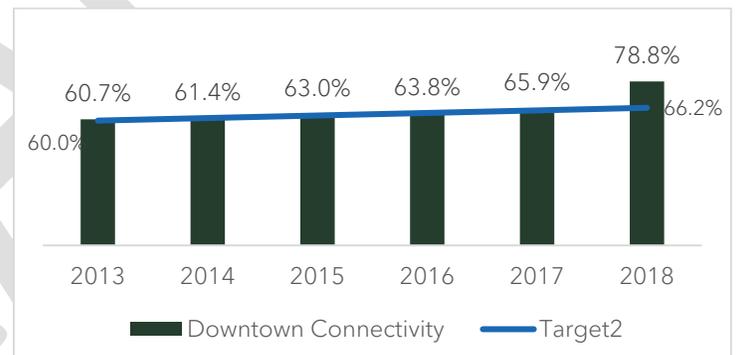
Connectivity

FIGURE 9 OVERLAKE CONNECTIVITY VS. TARGET<sup>1</sup>



(CITY OF REDMOND, 2020)

FIGURE 10 DOWNTOWN CONNECTIVITY VS. TARGET



(CITY OF REDMOND, 2020)

<sup>1</sup> The increase in 2018 resulted both from improved connectivity and data correction.

### Network Completion

FIGURE 11 NETWORK COMPLETION FOR DRIVERS



FIGURE 12 NETWORK COMPLETION FOR BICYCLISTS

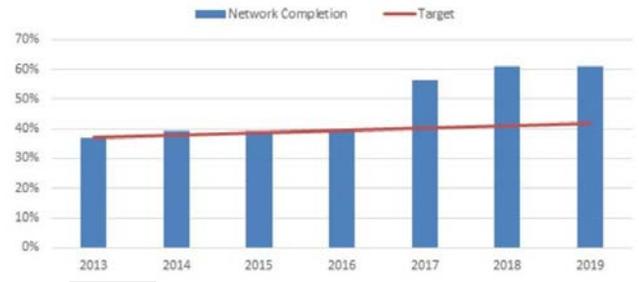


FIGURE 13 NETWORK COMPLETION FOR PEDESTRIANS IN PRIORITY ZONES

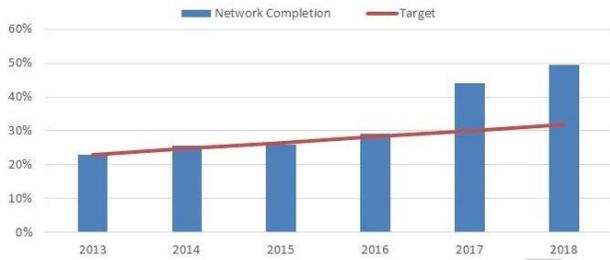


FIGURE 14 NETWORK COMPLETION FOR PEDESTRIANS IN NEIGHBORHOODS

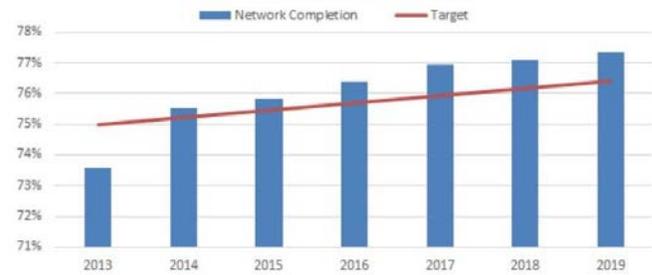


FIGURE 15 NETWORK COMPLETION FOR TRANSIT USERS

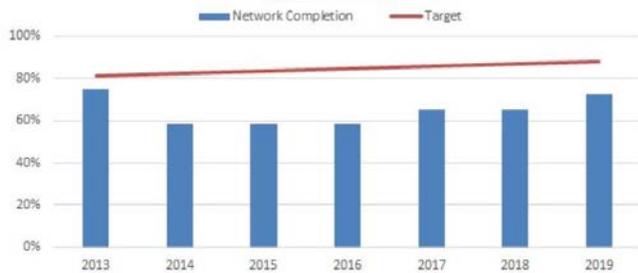
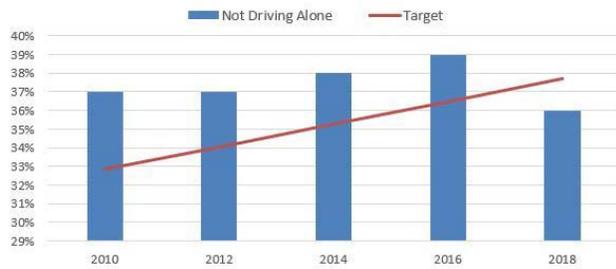


FIGURE 16 NETWORK COMPLETION FOR FREIGHT



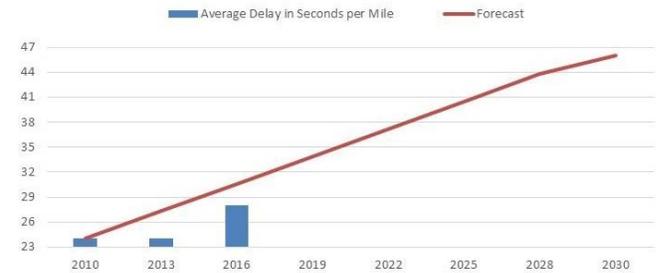
### Mode Share

FIGURE 17 MODE SHARE



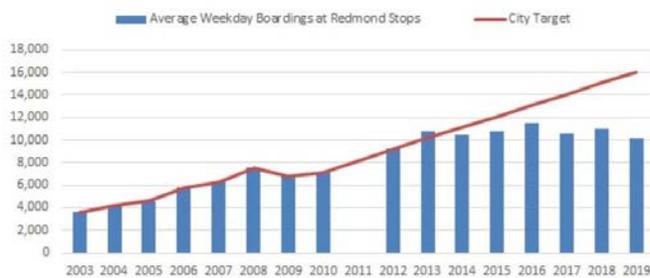
### Vehicular Congestion

FIGURE 18 TRAFFIC CONGESTION



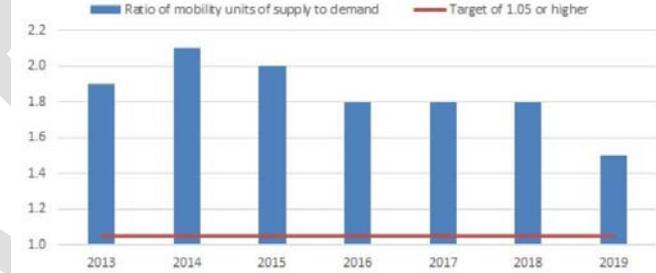
### Transit Ridership

FIGURE 19 TRANSIT RIDERSHIP



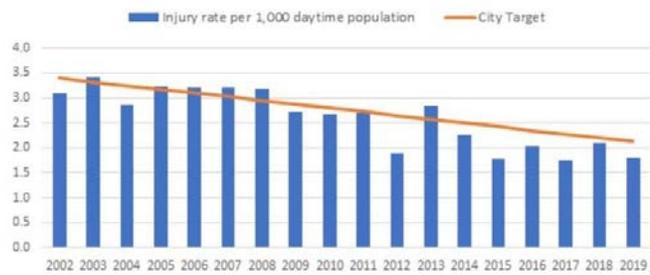
### Concurrency

FIGURE 20 CONCURRENCY



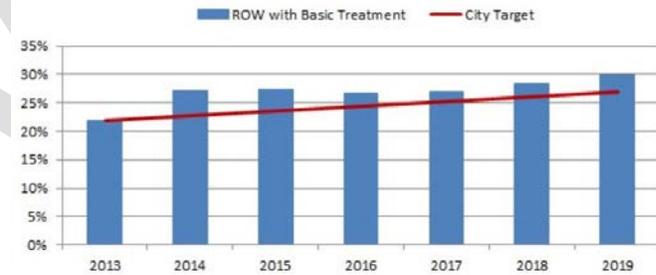
### Safety

FIGURE 21 TRAFFIC SAFETY



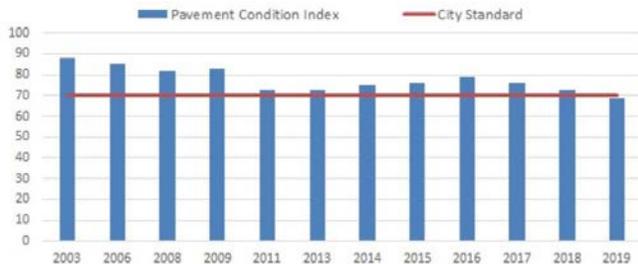
### Environment

FIGURE 22 WATER QUALITY



### Street Preservation

FIGURE 23 STREET PRESERVATION



## Trends Analysis

This section addresses trends in transportation that Redmond should consider in planning for the future.

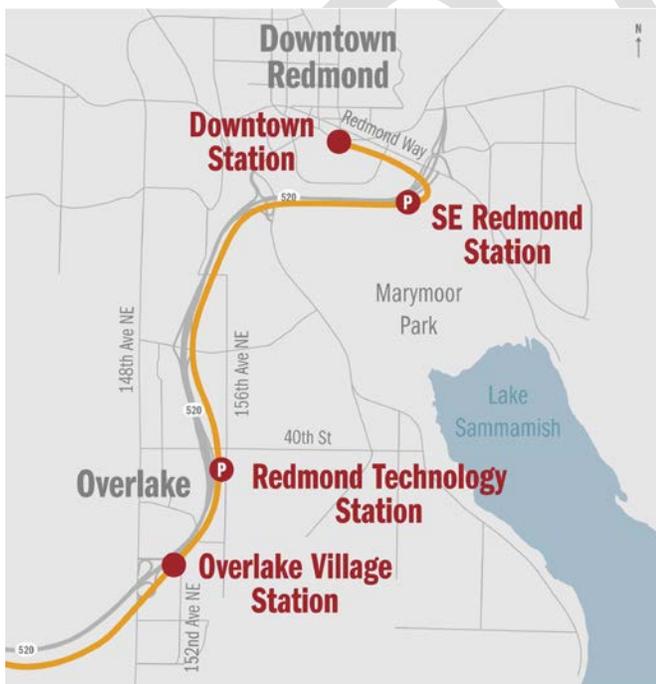
### Growth in Urban Centers

Redmond is expected to accommodate about 65 percent of its growth between now and 2050 in its urban centers and light rail station areas. These urban centers are already more transit-dependent than other parts of Redmond and will become more so as growth occurs faster there than in other parts of Redmond. This will increase the need and demand for transit and other non-single-occupancy-vehicle travel options.

### Arrival of Light Rail

Light rail service will begin in Overlake in 2023 and in Southeast Redmond and Downtown in 2024. The advent of light rail to Redmond will reshape Redmond's public transit network as bus service is redeployed to connect more people to more places. The planning work to redeploy service is expected to occur in 2021-22 for implementation in 2023 and 2024. Moreover, fast, frequent, and reliable transit service will make it possible for more households to own fewer vehicles or no vehicles. This will have an impact on street use, including pedestrian and bicycle facilities, and the overall need for off-street parking.

FIGURE 24 LIGHT RAIL IN REDMOND



## Shared Mobility

Recent years have seen the introduction of shared mobility, also called mobility as a service. The fundamental idea behind shared mobility is that a person can be mobile without needing to own an expensive device like a car. Shared mobility is not new – taxis have been around for many decades – but it has expanded to other forms of mobility like bicycles and scooters. Modern shared mobility is often built on technology platforms that match users with a mobility device. Sometimes the mobility devices are owned by the creator of the technology platform (e.g., Lime scooters in Redmond), and sometimes they are owned by a third party (e.g., drivers for Uber or Lyft).

As driverless vehicle technology advances, there may be many more people who opt out of vehicle ownership in favor of hailing a driverless fleet vehicle. Or, people may choose to own a driverless car and rent it out while not using it themselves.

Shared mobility is one of the potential solutions to the “first mile-last mile” problem, that is, the problem of getting from the nearest fixed-route public transit stop to one’s destination.

## Delivery of Freight

E-commerce continues to grow rapidly, most recently because of the COVID-19 pandemic. How personal shopping behaviors change after the pandemic is difficult to forecast, but it will be important to monitor the impact of both long-haul and local delivery trucks on the local transportation system. Part of the impact of increased local deliveries is on the demand for loading zones along streets, especially in the urban centers.

This trend is also intertwined with advances in technology as robotic and aerial delivery vehicles are being tested that would in part replace traditional vehicles with drivers.

## Long-Term Commute Pattern Changes

The pandemic has scrambled commuting patterns and it will be important to monitor how changes wrought by the pandemic “stick” after the pandemic wanes. Will many people opt for part- or full-time telecommuting? Will employers adopt more flexible work location and hours policies? How will that affect how communities and transit agencies make transportation investment decisions? The answers are as yet unknown, but, given the magnitude of the possible effects, it will be important to be adaptive going forward.

## Transportation Technology

Driverless vehicles, automated and connected vehicles, drones, high-speed rail, and technologies not yet discovered: any or all of these could have significant impacts on how, when, and where people travel. Will driverless vehicles mean that more parking is needed, or less? Will drone deliveries supplant local truck deliveries or just dramatically expand the market?

Changes in how people travel may also be driven by advances in non-transportation technology. Videoconferencing has advanced to the point that many millions of people have not set foot in their workplace for months. What other technology advances will make travel unnecessary?

As above, the magnitude of possible impacts calls for adaptiveness; it also calls for focusing on the future community vision, which transcends these questions.

## Policy Considerations

This section identifies transportation policy considerations for meeting regional or regulatory imperatives and community priorities. Transportation policy considerations are organized by draft Transportation Master Plan strategies, subject to refinement throughout the planning process. Each policy consideration has a relationship to one or more of the Redmond 2050 themes of sustainability, equity and inclusion, technology forward, resiliency, and – specific to transportation – safety.

### Orient around Light Rail

Deploy transit service to connect people to light rail. When light rail service begins in 2023 (Overlake) and 2024 (Downtown and Southeast Redmond), it will be the spine of Redmond's public transportation system. Concurrent with the Redmond 2050 effort, City staff will be working with Metro, Sound Transit, and the community to develop changes to bus transit to best serve the Redmond community going forward.

Prioritize investments that improve access to light rail. To best leverage the region's investment in high capacity transit, Redmond should consider prioritizing mobility investments that improve access to light rail and the mobility it affords.

These two policy considerations support sustainability by encouraging transit use; they support equity by making more opportunities available to more people; they support resiliency by increasing the number of ways that people can get around Redmond; they support safety by encouraging use of modes other than driving.

Encourage transit-oriented development in light rail station areas. To achieve the community's vision for focusing growth in urban centers, and to best leverage the region's investment in high-capacity transit, Redmond should consider encouraging transit-oriented development in light rail station areas. This policy consideration supports sustainability by encouraging lower carbon footprint lifestyles; it supports equity and inclusion by making more housing available closer to public transit and the mobility it affords.

Reform parking regulations around light rail stations to maximize desired uses like housing and employment. The combination of new light rail service and redeployed bus service will enable more households to choose to own fewer vehicles or no vehicles. The desire to accommodate most of Redmond's growth in urban centers also argues for balancing the need for parking with the need to accommodate housing and jobs. Therefore, Redmond should consider reforming parking regulations around light rail stations to maximize desired uses like housing and employment. This policy consideration supports sustainability by encouraging use of travel modes other than driving; it supports equity and inclusion by increasing the affordability of housing near transit; it can be supported by a technology forward approach, which can help people find available parking faster.

### Maintain Transportation Infrastructure

Maximize the cost-effectiveness of transportation system maintenance expenditures. Maintaining the existing system will become an increasing financial challenge as Redmond's infrastructure ages. Part of meeting that challenge will be investing wisely in system maintenance. This policy aligns with the

principle of technology forward, to the degree that technology can be harnessed to make strategic investments, as well as safety, as maintenance investments are often safety investments.

Design and build infrastructure that is resilient and can be efficiently maintained. Resiliency and the ability to efficiently maintain a system are the result of thoughtful planning and design. Redmond should plan for, design, and build transportation infrastructure considering resiliency and efficient maintenance from the beginning. This policy consideration closely aligns with the principle of sustainability.

Identify level-of-service requirements and funding for long-term maintenance and operations of infrastructure. Redmond should consider formalizing a system for identifying and budgeting for the long-term maintenance and operations of transportation infrastructure. Like the above policy consideration, this closely aligns with the principle of sustainability; it also promotes safety.

### Improve Travel Choices and Mobility

Complete modal networks. Redmond has adopted vehicle, bicycle, freight, and transit modal networks. Continuing this policy to complete the modal networks supports equity and inclusion by making more mobility choices to more people; it supports resiliency by diversifying the transportation system; it supports sustainability by making mobility less reliant on fossil fuels; it supports safety by eliminating network gaps.

Two policy considerations are elements of completing modal networks and support the same principles described above:

- Improve pedestrian and bicycling connections within and between neighborhoods
- Invest in bus transit speed, access, and reliability

Maximize the use of transportation infrastructure through transportation demand management programs. Making the most of the existing transportation systems maximizes the value of past capital investments while making more mobility choices available to travelers. This policy consideration supports the principles of technology forward, as data is harnessed to improve the efficient use of infrastructure; and sustainability, as travelers make choices that have less negative environmental impacts.

Manage limited right-of-way and curb space to achieve community goals. Improving travel choices and mobility will require Redmond to make considered decisions in how limited right-of-way is allocated to various uses. These decisions should be guided by community goals for land use, economic vitality, mobility, and more, and should align with the principles of sustainability, equity and inclusion, technology forward, resiliency, and safety.

### Enhance Freight and Service Mobility

Complete the freight modal network. The freight modal network provides for the movement of goods and services to and through Redmond. This policy consideration aligns especially with the principle of resiliency, as the network is critical to economic well-being.

Monitor freight and service delivery patterns and adjust transportation system operations if warranted. This policy consideration calls for continued monitoring of travel patterns in an era of change in how goods and services are delivered. This consideration supports the principles of technology forward - using information and technology to inform decisions, and resiliency insofar as Redmond makes adjustments that make the system more resilient.

- **Sustainability:** Investments to encourage a shift from driving alone by providing convenient, safe and accessible options are critical to achieving climate action goals.
- **Equity & Inclusion:** Policies that supports mobility and connectivity, prioritize affordable and effective public transportation network that connects communities with access to employment, education, and health and social services are important to creating an equitable and inclusive transportation system.
- **Tech Forward:** Technological innovations are evolving quickly and may potentially transform our transportation systems. Planning with flexibility in mind will support resiliency efforts and allow for technological innovations ranging from shared and on-demand mobility, improvements in traveler information, and a reduced reliance on personal vehicles. Technology may also impact how our freight and delivery systems work, fleet management and the ways in which we use publicly managed curb lanes.
- **Resiliency:** Transportation is a backbone of our economy, connecting people, freight, jobs, and services. Planning for a resilient, multimodal system allows for a smooth transition to alternatives should there be unexpected events that impact one or more travel modes. Revenue should come from multiple streams and mechanisms, including user-based fees, to manage and improve the transportation system even during times of economic uncertainty or shifts in development trends.

## Existing Conditions

# Economic Vitality

### Introduction

Redmond's strong economic performance has made the city a magnet for growth. The strength of the economy relies heavily on the technology sector but does not end with Redmond having Microsoft's international headquarters. Stryker, Genie Terex, and Nintendo also host headquarters in Redmond. SpaceX, Facebook, Amazon, and Google all have a presence in the city, diversifying the technology-based jobs in our community. Numerous locally owned businesses add to Redmond's strong base of 5,900 employers.

A vibrant community anticipates and plans for the future, is adaptable to change and fosters a positive economic climate that supports the evolving needs of the community. When strategic plans, regulations and programs align with the community's vision, both public and private development decisions are more effective in advancing that vision.

### State & Regional Planning Context

#### State Context

In 2019, Washington ranked fourth among the 50 states in economic growth and competitiveness, up from fifth in 2018 (Economic and Revenue Forecast Council, 2019). Washington has consistently ranked in the top states in exports during the last decade, and in 2019 ranked 5th in total value of exports behind Texas, California, New York and Louisiana. (Office of Financial Management, 2019)

The Washington State Department of Commerce focuses on the aerospace, agriculture/food manufacturing, clean technology, information and communication technology, forest products, life science/global health, maritime, and military/defense sectors. They do so by working closely with the governor, industry and government leaders to forge and promote public-private partnerships, enhance the workforce for the 21st century in targeted, high-growth industries, and advance broad-stroke strategies that support small business growth and expansion statewide.

### Fast Facts

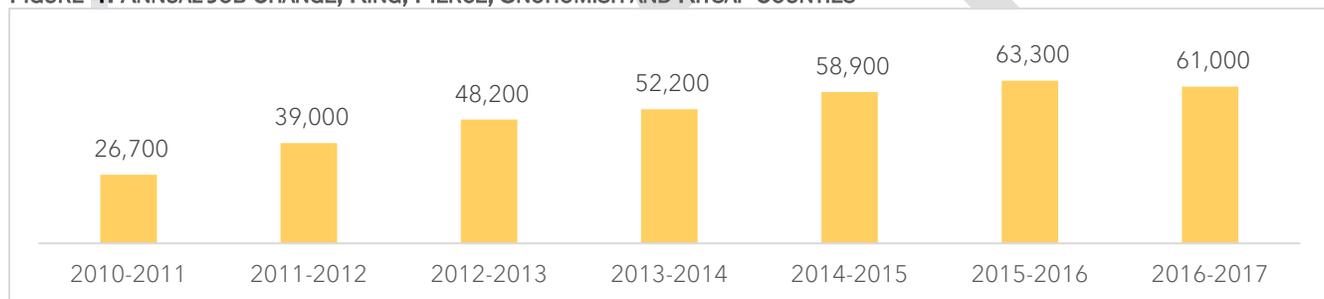
- Approximately 95,000 jobs are in Redmond, with an anticipated 119,000 jobs by 2030.
- 75% of jobs are in services sector
- Manufacturing accounts for 8% of jobs in Redmond
- Digital gaming, aerospace, and software development are key industry clusters
- Redmond's median household income is \$123,449
- 5.7% of households live in poverty
- 70% of jobs are in the Overlake Urban Center
- The number of jobs in Redmond exceeds available housing, resulting in a large daytime population.

## Puget Sound Region

Between 2010 and 2017, the Puget Sound region has seen robust economic growth with 349,000 jobs added in the four-county region of King, Snohomish, Pierce and Kitsap Counties. While Washington added 52,500 jobs between October 2018 and October 2019, 79% of those jobs (or 41,600) were in the Seattle metropolitan area. Jobs across the four-county region of King, Pierce, Snohomish and Kitsap Counties have grown annually by an average of 2.7% per year, with a one year high of 3.2% in 2015/2016 (Figure 4).

The top economic sectors in the region are the services sector (46%), government & education (15%), retail (11%), and manufacturing (10%). This job share is a close match with that of the nation, with manufacturing and services sector being 1% higher than the national average. The services sector is further broken down into healthcare (27%), food services (19%), professional/scientific/technical (16%), and information (12%). The two subsectors of information and professional, scientific and technical services together surpass the share of health care jobs (PSRC, 2017).

**FIGURE 4: ANNUAL JOB CHANGE, KING, PIERCE, SNOHOMISH AND KITSAP COUNTIES**



(ESD, 2018)

## King County

King County is the largest labor market in the state with nearly 42 percent of all nonfarm jobs in Washington state located here. King County job growth was largest in the technology sector with the addition of 52,000 jobs. Conversely, manufacturing saw the greatest decline with a loss of 34,500 jobs over the same time period between 2010 and 2016.

Before COVID-19, unemployment in King County had a long-term average of 4.9 percent. Unemployment rates reached a peak of 14.9 percent in April 2020 and dropped again to 7.2 percent in August 2020 (Statistics, 2020). The long-term economic impacts from COVID-19 remain unknown but will be monitored and addressed as part of the resiliency theme in the Comprehensive Plan.

The overarching goal of King County Countywide Planning Policies (CPPs) for economic vitality is for all people in King County to have opportunities to prosper and enjoy a high quality of life through economic growth and job creation.

Business creation, retention, expansion, and recruitment are the foundations of a strong economy. Local communities play a significant role through local government actions, such as developing and operating high-quality basic services like water, sewer, transportation, public health, and public safety; developing and implementing a land use plan that accommodates economic growth;

implementing a fair and predictable regulatory framework; engaging in public-private partnerships; and by nurturing a business-supportive culture, particularly for Black, Indigenous and people of color (BIPOC)- and women-owned businesses.

The following subset of CPPs related to economic vitality warrant special attention as they relate to Redmond's circumstances as a core city include the following (a full list of the economic vitality countywide planning policies can be found online):

- Coordinate local and countywide economic policies and strategies with VISION 2050 and the Regional Economic Strategy.
- Support economic growth that accommodates employment growth targets and prioritizes a diversity of living-wage jobs, through local land use plans, infrastructure development, and implementation of economic development strategies. Prevent the loss of middle-wage, middle skill jobs from the region.
- Help businesses thrive through:
  - Transparency, efficiency, and predictability of local regulations and policies;
  - Communication and partnerships between businesses, government, schools, and research institutions; and
  - Government contracts with local businesses.
- Support advanced manufacturing, aerospace, and technology industry clusters and related sub clusters within King County as integral components of the Regional Economic Strategy or given their significance to King County's economy.
- Foster a broad range of public-private partnerships to implement economic development policies, programs and projects
- Encourage commercial and mixed-use development that provide a range of job opportunities throughout the region to create a much closer balance and match between jobs and housing.
- Prevent economic displacement of small, culturally relevant businesses during periods of growth and redevelopment through targeted resource provision.

## **Local Planning & Regulatory Context**

### **Redmond Regulations**

The community vision expressed in the Comprehensive Plan is the foundational framework for guiding City activities. With respect to economic development, the 2030 Future Vision states in part that:

The Comprehensive Plan contains the following policy direction for economic vitality.

- Focus major employment and a variety of businesses, including retail, office, services and entertainment uses that are compatible with a mixed-use urban environment, in the Downtown and Overlake Urban Centers and the Marymoor Local Center;
- Focus additional employment in the Willows/Rose Hill and SE Redmond Neighborhoods.;
- Maintain properties currently developed with manufacturing uses for manufacturing and other uses permitted within the zone, recognizing that the types of manufacturing uses and needs change over time;

- Concentrate businesses where uses are complementary and can make efficient use of the existing infrastructure; and,
- Identify, construct and maintain infrastructure and utility systems and facilities that support economic vitality.
- The City's policies for capital facilities generally state that growth should pay for growth.

**Redmond has acted to maintain a strong economy and a diverse job base. The City is the home to many small, medium-size and locally owned businesses and services, as well as nationally and internationally recognized corporations.**

## Current Conditions

### Inventory of Existing Conditions

In Redmond, there are over 5,900 businesses with more than 95,000 jobs<sup>1</sup>. Seventy-five percent of these jobs are in the services sector which encompasses information; professional, scientific, and technical services; educational services (private sector); health care and social assistance; arts, entertainment and recreation; and other services.

The number of jobs in Redmond grew by 50 percent between 1995 and 2019. The greatest growth came in the services industry, with 66 percent growth, or 47,514 jobs added. Manufacturing jobs declined the most, at 16 percent (1,273 jobs) over the same time period.

TABLE 1 REDMOND JOBS BY SECTOR

Jobs By Sector	1995 Jobs	2019 Jobs	% of total jobs (2019)	Change in Jobs	% Change over time
Government	886	1,045	1.1%	159	15%
Education	767	1,368	1.4%	601	44%
Finance, Insurance, Real Estate	2,380	1,991	2.1%	(389)	-20%
Construction & Resources	3,063	3,272	3.4%	209	6%
Wholesale Trade, Transportation & Utilities	3,261	3,899	4.1%	638	16%
Retail	3,303	3,942	4.1%	639	16%
Manufacturing	9,226	7,953	8.3%	(1,273)	-16%
Services	24,517	72,031	75.4%	47,514	66%
TOTAL	47,405	95,501	100%	48,096	15%

<sup>1</sup> The unit of measurement for this table and discussion is jobs, rather than working persons or proportional full-time employment (FTE) equivalents. Part-time and temporary positions are included.

(PSRC)

In addition to the robust job market, workers receive competitive compensation. Redmond residents have a median household income of \$123,449, higher than the average for King County and for Washington state. Within Redmond, 5.7 percent of the population is living in poverty, compared to 9.2 percent in King County and 9.8 percent in Washington state. Redmond also has a high median home price of \$823,300, which results in part from the high demand for housing in Redmond relative to supply (see Housing Existing Conditions Report for more).

**FIGURE 1 MEDIAN HOUSEHOLD INCOME BY AREA**



(United States Census Bureau, 2018)

### **Business Clusters**

The *OneRedmond Business Plan, 2012*, included a strengths, weaknesses, opportunities and threats (SWOT) analysis that identifies opportunities and challenges facing Redmond based on the community's resources and location<sup>2</sup>. The analysis indicated that:

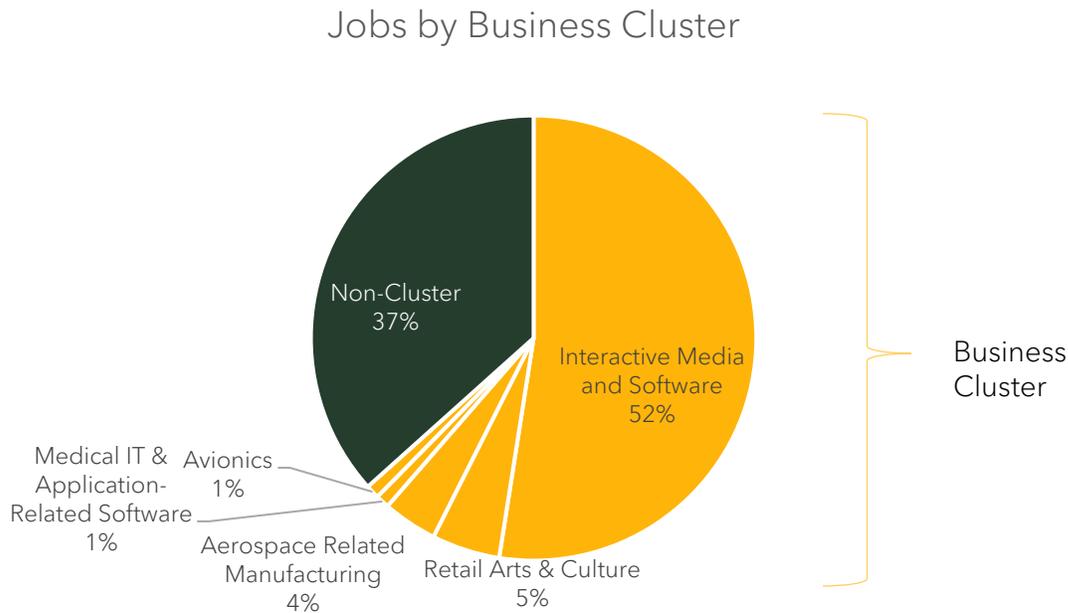
- The best opportunities for economic development are by targeting specific industries;
- Targeting business sectors helps to diversify Redmond's economy by using existing assets in the near-term, and sustaining economic growth in the long-term; and
- Activities should center on business startups, retention, attraction and expansion, particularly in targeted industries.

Both City of Redmond and private sector economic development activities therefore focus on retaining and attracting businesses in the following targeted areas, known as business clusters:

- Aerospace-related advanced manufacturing
- Avionics
- Interactive media and software
- Medical information technology and application-related software
- Retail, arts and culture

Cluster employment from the time of this study is shown in Figure 2, with data indicating that approximately 63 percent of all jobs (53,210 jobs) were in these clusters, and 37 percent (31,250 jobs) were in non-cluster industries.

FIGURE 2 NUMBER OF JOBS IN REDMOND'S BUSINESS CLUSTERS (2014)



**Employment Centers**

Redmond has two urban centers that act as major employment centers: Downtown and Overlake. Employment centers are also found along Willows Road, in Southeast Redmond, and in Marymoor Village (see Land Use Chapter for reference maps). The Willows Road corridor has a diverse range of business including light manufacturing, digital gaming development, aerospace, and regional headquarters. The Southeast Redmond Business Corridor is home to manufacturing, research and development, light industry, wholesale, assembly, and distribution businesses. The Marymoor Village area adjacent to the Southeast Redmond Business Corridor is planned to accommodate an additional 12,000 jobs by 2030.

TABLE 2 LOCATION OF REDMOND EMPLOYMENT

Employment Center Location	Approximate FTEs	Percent of Jobs in Employment Centers
Overlake	48,000	70%
Downtown	10,000	15%
Marymoor Village/SE Redmond	5,100 <sup>3</sup>	7.5%
Willows Road Business Corridor	5,200	7.5%

(CITY OF REDMOND, 2020)

<sup>3</sup> Marymoor Village and SE Redmond jobs numbers are an estimate based on employers with more than 100 employees from the Commute Trip Reduction survey. This neighborhood is projected to house 12,000 jobs by 2030.

## Major Redmond Employers

Redmond's top 20 businesses by number of employees represented less than 1 percent of all licensed businesses, but 51 percent of jobs in Redmond (**City of Redmond, 2016**). Redmond hosts the headquarters of several corporations including Aerojet Rocketdyne, Genie/Terex, Microsoft, Nintendo of America, and Oculus. Microsoft is the largest employer in Redmond, representing approximately 40 percent of employees in Redmond. Eurest Dining Services, which supports the Microsoft campus, is also in the top 5 employers in the city.

TABLE 3 TOP 20 REDMOND EMPLOYERS, 2019

Rank	Company	Full Time Equivalent (FTE) Jobs	Percent of 95,501 Total FTEs
1	Microsoft Corporation	36,087	38%
2	Terex Washington & USA	2,044	2.1%
3	Eurest Dining Services	1,352	1.4%
4	Lake Washington School District	1,294	1.4%
5	Nintendo of America	972	1.0%
6	Honeywell International Inc.	923	1.0%
7	City of Redmond	792	0.8%
8	United Parcel Service	755	0.8%
9	Stryker Corporation	694	0.7%
10	Facebook Technologies LLC	590	0.6%
11	CBRE, Inc.	553	0.6%
12	AT&T Mobility	434	0.5%
13	Aerojet	432	0.5%
14	Accenture	380	0.4%
15	MV Public Transportation Inc.	352	0.4%
16	Pactera Technologies Inc.	324	0.3%
17	Costco	279	0.3%
18	Wyndham Vacation Ownership Inc.	275	0.3%
19	Puget Sound Energy	263	0.3%
20	Novitex Enterprise Solutions Inc.	261	0.3%

(CITY OF REDMOND, 2019)

## Redmond Workforce

Redmond has a highly educated workforce with 70 percent of the population over the age of 25 having at least a bachelor's degree, compared to the 35 percent for Washington state and 51 percent for King County. Residents over 25 who are a high school graduate or higher is 97 percent (United States Census Bureau, 2018). Additional information on Redmond's demographics can be found in the Introduction section.

## Inventory of Actions and Programs

Past studies completed by the City of Redmond stated that economic development cannot be successfully achieved acting alone; successful outcomes depend on the City engaging in a variety of

partnerships. The following are a list of partnerships the City maintains as they relate to Economic Vitality.

### **Experience Redmond Tourism**

The Experience Redmond Tourism organization collects and shares information to promote tourism in Redmond. The organization maximizes outreach through social media to serve as a virtual tour guide.

### **One Redmond**

OneRedmond is a public-private partnership that supports and advocates for local businesses, non-profits, and community. OneRedmond is an alliance of various business, government, education, and community entities to promote economic vitality in Redmond.

### **Go Redmond**

Go Redmond is a partnership between the City of Redmond, Greater Redmond Transportation Management Association, and King County Metro. The program aids commuters and employers to improve access to local businesses and help get 95,000 employees in Redmond to work.

### **Local Schools**

Successful programs & companies return benefits directly and indirectly to the community. A prime example of this is the support that residents and the business community have given to the school system that has resulted in a high-quality educational system that serves the needs of people of all ages, from K-12 public education by the Lake Washington School District to technical training at Digipen Institute of Technology.

### **Washington Interactive Network**

Washington Interactive Network is a nonprofit organization with the mission to promote, nurture, and grow the Interactive Media industry cluster in Washington state.

### **Innovation Triangle**

The Innovation Triangle is a partnership between the cities of Bellevue, Kirkland, and Redmond—as well as the Port of Seattle—dedicated to building and maintaining the world's foremost innovation and technology center.

### **Pacific Northwest Aerospace Alliance**

Pacific Northwest Aerospace Alliance is a non-profit organization made up of a coalition of aerospace companies that serve North America's largest commercial aerospace manufacturing hub. With members and affiliates around the world, PNAA strengthens the manufacturing supply chain through dynamic events designed to inform aerospace leaders, connect aerospace interests, and inspire industry collaboration and innovation.

### **StartUp 425**

Startup 425 is a collaborative effort to expand entrepreneurship opportunities across Eastside communities by helping you turn that idea into reality.

## Level of Service

Five percent (\$27,888,978) of the 2019-2020 budget supported the Vibrant Economy budget priority. This included projects and staffing that support the goal of growing a diverse and vibrant range of businesses and services in Redmond.

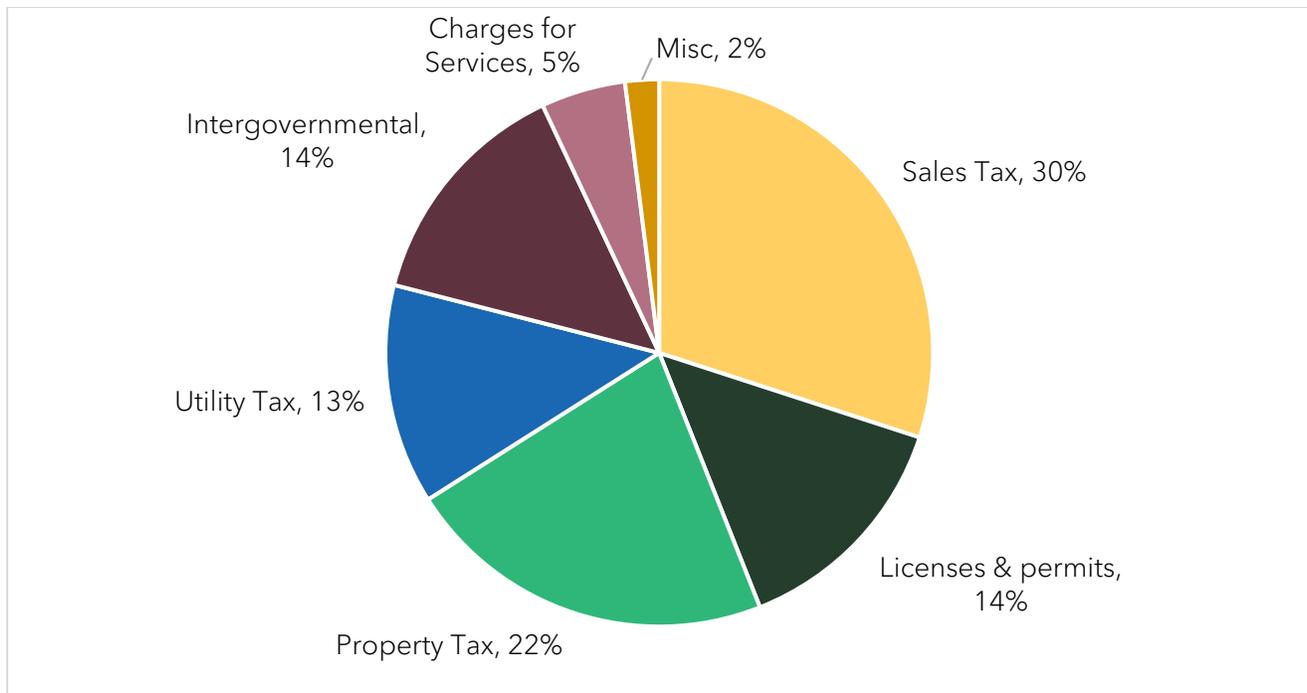
As part of the budget planning process, Redmond uses several metrics to track progress on Economic Vitality. The number of businesses that have been in Redmond for more than seven years measures Redmond’s ability to attract and retain a vibrant business community and a diversity of established businesses creates local choices and opportunities. Redmond’s residents indicated that convenient access to the types of services and business amenities was important and is measured by community satisfaction with the local services.

**TABLE 4 VIBRANT ECONOMY BUDGET OFFER METRICS**

<b>Performance Measure Actual Target</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Jobs to Housing Ratio	2.35	2.31	TBD
Percentage of Redmond residents either very satisfied or satisfied with the type and variety of employers, restaurants, retail shops and services in Redmond	87%	86%	86%
The number of active businesses in Redmond that have held a business licensed for seven years or more (City of Redmond, 2018) (City of Redmond, 2018)	1,472	1,501	1,283

Strong economic performance supports the work of the City by helping to fund local government. For example, one-third of general fund revenues comes from sales taxes paid at local businesses (Figure 4).

**FIGURE 3 GENERAL FUND BUDGET SOURCES (CITY OF REDMOND, 2020)**



## Trends Analysis

### Technology-Based Jobs

Redmond continues to be a magnet for high tech employers with Microsoft, Facebook Oculus, Google and Amazon all having a presence in Redmond. Overreliance on one sector may reduce Redmond's resilience to changes in any industry-specific or economic downturn.

### Teleworking/Commuting:

Before COVID-19, there was 159 percent increase telework between 2005 and 2017, with 3.4 percent of the population working remotely. Knowledge sector employees are prevalent in Redmond and these types of jobs lend themselves to teleworking. If employees no longer need a physical presence in the office, there are positive repercussions for the environment, but potentially negative impacts on the local economy that supports these employees. Redmond should consider enhancing educational, environmental, cultural and social qualities to attract a future workforce who may be able to live anywhere but chooses Redmond. Telework may also provide an opportunity expand business diversity beyond current employment clusters.

### Traffic Congestion

OneRedmond has flagged that traffic congestion in certain corridors in Redmond may have negative impacts on economic growth, impacting the delivery of freight and the talent that works in Redmond. Traffic congestion is a factor firms consider when locating or expanding in Redmond. Mitigation strategies should be considered in the Transportation Master Plan & Transportation Element update.

### Recovery Efforts

The full extent and scale of disruption from COVID-19 is still unknown. However, we are seeing trends that indicate negative impacts on businesses could result in a higher number of business closures and the ripple effects of staff layoffs and impacts to the broader economy that may need to be addressed.

## Policy Considerations

- **Equity**
  - Identify strategies to retain and support existing, local businesses and help them succeed
  - Maintain manufacturing land uses
  - Ensure all businesses have access to recovery resources through clear and supportive processes
  - Focus retention and recruitment efforts on businesses that provide living wage jobs, women- and minority-owned small businesses and start-up companies
- **Resiliency**
  - Diversify and expand the job sector and business clusters to enhance economic resiliency
  - Review policies for “Artisan and Craft” businesses that blend light manufacturing and retail zones
  - Enhance local cultural and social qualities to attract workforce
  - Evaluate the City’s policies for capital facilities that generally state that growth should pay for growth
- **Sustainability & Technology Forward**

Focus retention and recruitment efforts on established and emerging industries, technologies, and services, that promote environmental sustainability, especially those addressing climate change and resilience

## Existing Conditions

# Capital Facilities Element and Public Safety

## Introduction

The Capital Facilities Element of the Redmond Comprehensive Plan provides information on topics related to capital facilities planning including:

- An inventory of existing facilities;
- Financial planning; and
- Identifying lands useful for public purposes.

In addition, the element adopts through reference many functional plans.

Capital facilities plans guide the investment and development of the physical structures that help our community efficiently maximize limited funding. Capital facilities planning allows the City of Redmond to determine the needs and priorities for capital facilities, and how capital facilities projects can be coordinated and successfully financed to meet those needs and priorities.

Information about capital facilities for utilities is contained in the Utilities chapter of this report.

## State & Regional Planning Context

### State Laws and Regulations

#### Washington State Growth Management Act (GMA)

The GMA requires jurisdictions that fully plan under the GMA, including Redmond, to include a capital facilities plan element in their comprehensive plans ([RCW 36.70A.070\(3\)](#)). The capital facilities element is required before a jurisdiction can implement GMA impact fees. In addition, because Redmond has a population greater than 5,000 and fully plans under the GMA, a capital facilities plan is required before the City can impose certain taxes such as the real estate excise tax. In addition, a capital facilities plan is required before the City can qualify for certain state funding opportunities.

The capital facilities plan implements the land use element of the comprehensive plan, and these two elements, including the financing plan within the capital facilities element, must be coordinated and be consistent.

## Fast Facts

As reported by the 2019 City of Redmond Facilities Strategic Management Plan:

- Approximately 500,000 gross square feet of city-owned facilities.
- 27 Buildings
- 13 Sites
- Most of the City's facilities were constructed between 1952 and 2005.
- 73% of facilities require investment by 2030 to address functional or building condition issues

## Washington Administrative Code (WAC)

[WAC 365-196-415](#) requires that the capital facilities element of a comprehensive plan must contain:

- An inventory of capital facilities owned by public entities (aka “public facilities”), including the location and capacities of the facilities;
- A forecast of future needs for such capital facilities based on the land use element;
- Proposed locations and capacities of expanded or new capital facilities;
- A (minimum) six-year financing plan for capital facilities; and
- A reassessment of the land use element if expected funding falls short of meeting existing needs.

## Puget Sound Regional Council

In the four-county central Puget Sound region, local governments have collaborated through the Puget Sound Regional Council (PSRC) to establish a regional growth strategy, contained in VISION 2050. Puget Sound Regional Council’s VISION 2050 addresses a spectrum of capital facilities planning issues, which aims to create planning consistency across design, land use, transportation, and other considerations.

Growing public services to accommodate development can create challenges in how and where to locate new facilities. While capital facilities are essential to communities, they often impact the environment and adjacent jurisdictions. Infrastructure such as sewage treatment plants and power substations become hard to site and must be designed and operated with minimal negative impacts to communities.

PSRC emphasizes that communities must carefully consider equity when planning capital facilities. The historic provision of public services often systematically and disproportionately created worse conditions for people of color and people with low incomes. This in turn caused less access to economic opportunity and a lower quality of life. Redmond’s capital facility planning will need to incorporate equity to be consistent with PSRC guidance and the Redmond 2050 theme of equity and inclusion,

Vision 2050 contains the following key capital facilities development requirements. A full list can be found at the PSRC website ([Vision 2050](#)):

- **MPP-T-3** Reduce the need for new capital improvements through investments in operations, pricing programs, demand management strategies, and system management activities that improve the efficiency of the current system.
- **MPP-PS-1** Protect and enhance the environment and public health and safety when providing services and facilities.
- **MPP-PS-2** Promote affordability and equitable access of public services to all communities, especially the historically underserved. Prioritize investments to address disparities.
- **MPP-PS-3** Time and phase services and facilities to guide growth and development in a manner that supports the Regional Growth Strategy.
- **MPP-PS-29** Site or expand regional capital facilities in a manner that (1) reduces adverse social, environmental, and economic impacts on the host community, especially on historically

marginalized communities, (2) equitably balances the location of new facilities away from disproportionately burdened communities, and (3) addresses regional planning objectives.

- **MPP-PS-30** Do not locate regional capital facilities outside the urban growth area unless it is demonstrated that a non-urban site is the most appropriate location for such a facility.
- **PS-Action-2** Facilities Siting and Design: PSRC will facilitate cooperative efforts with special purpose districts and local jurisdictions to site and design facilities that enhance local communities in accordance with growth management goals and VISION 2050

## Countywide Planning Policies

The 2012 King County Countywide Planning Policies (CPPs) were prepared to address changes to the Growth Management Act. For the purposes of this report, the 2012 CPPs, as amended in 2016, will be referenced because proposed amendments to the CPPs will not be adopted until 2021. The primary focus of this chapter will be applicable policies that are firmly grounded in GMA requirements and are consistent with regional objectives.

Redmond's capital facilities policies must be consistent with King County CPPs. The following provides a high-level, non-comprehensive, summary of key CPP policy directives.

- **DP-3** Efficiently develop and use residential, commercial, and manufacturing land in the Urban Growth Area to create healthy and vibrant urban communities with a full range of urban services, and to protect the long-term viability of the Rural Area and Resource Lands. Promote the efficient use of land within the Urban Growth Area by using methods such as;
  - Directing concentrations of housing and employment growth to designated centers;
  - Encouraging compact development with a mix of compatible residential, commercial, and community activities;
  - Maximizing the use of the existing capacity for housing and employment; and
  - Coordinating plans for land use, transportation, capital facilities and services.
- **PF-20** Site or expand public capital facilities of regional or statewide importance within the county in a way that equitably disperses impacts and benefits and supports the Countywide Planning Policies.
- **T-7** Ensure state capital improvement policies and actions are consistent with the Regional Growth Strategy and support VISION 2040 and the Countywide Planning Policies.

## Local Planning & Regulatory Context

The Capital Facilities Element establishes policies to direct the development of the City's capital investment program in support of the community's vision for the future.

Broadly, capital facilities policy guidance in Redmond's Comprehensive Plan can be summed up by policies CF-1 and CF-6.

**CF-1** Develop and regularly update functional plans that assess capital facility needs and strategies for addressing such needs. Provide opportunities for public involvement appropriate to the nature of the update. Use functional plans to guide the development of capital priorities and investment decisions within each of the following functional areas:

- Fire protection and response, including the city and Fire District #34
- Police protection

- Stormwater and surface water management
- Water and sewer systems
- Parks, arts, recreation, culture and conservation
- Transportation
- Emergency preparedness and management
- General government facilities
- Other functional areas as identified

**CF-6 Establish capital facility service standards that help determine long-term capital facility and funding requirements.**

- Water system
  - A flow volume that meets instantaneous demand together with projected fire flows.
- Sewer system
  - A level that allows collection of peak wastewater discharge plus infiltration and inflow.
- Transportation facilities
  - Transportation service standards help identify the need for growth-related transportation services, programs and projects, as well as those that serve people already living and working in Redmond. Redmond has adopted a type of standard based on person mobility, which encompasses all modes of travel including trips by vehicles, walking, biking and transit. Redmond adopts standards based on personal mobility, which encompasses all modes of travel including trips by vehicles, walking, biking and transit.
  - Mobility-based standards support transportation concurrency, meaning the transportation system is continually balanced as programs and projects are implemented proportionally with the level of growth and implement the City's land use vision. Refer to the Transportation Master Plan and policies TR 26-28 for further information on mobility.
  - The target threshold for Redmond's mobility-based transportation service standard strives for a condition where enhancement of the transportation system occurs concurrently, proportionately, in parallel with City growth, and in a manner consistent with the Comprehensive Plan and the State Growth Management Act.
  - In addition, the mobility-based service standard is designed to have the effect of prioritizing future improvements and expanding travel choices to achieve a multimodal travel environment. Programs, projects and services in response to existing and growth-related travel include those that improve access and connections, including motor vehicle operations, public transit service levels, the walking and bicycling environment, and transportation demand management.
- Parks and recreational facilities
  - Children's Play Areas & Outdoor Sports & Fitness Facilities Service Areas: All residents should have convenient access (within one mile) to these facilities, which is calculated as within one mile depending on the quantity and quality of facilities.
  - Outdoor Sports Fields Usage Rates: Sports fields should operate at 80% capacity or less. If used at a higher rate, triggers the need to plan for additional capacity.

- Urban Parks Criteria: Both of Redmond's urban centers, Downtown and Overlake, should contain enough urban park acreage to meet all urban park service criteria:
  - Serve the daily recreational needs of neighboring residents, and at the same time, are destination gathering places,
  - Approximately two acres in size or larger,
  - Urban parks within an urban center combined or individually can accommodate crowds of up to 10,000 people for community events,
  - Enough infrastructure to support community events, and
  - Designed and constructed with quality amenities and materials.
- Trails: The target population has convenient access to public trails from home or office. This is calculated as a quarter mile from trail access points. The target population is 100% of residents and 25% of workers in Redmond.
- Recreation: Achieve or exceed projected number of registrations per year by program area (exercise, recreation, special events, and arts).

## Redmond Plans, Policies, Regulations, and Programs

The City of Redmond has a wide range of plans, policies, regulations, and programs related to capital facilities and public safety. Redmond's functional plans are major components of the City's overall capital facilities program. The functional plans may be consulted for more detailed information regarding existing and planned facilities, service standards and facility development:

A selection of these adopted plans is listed below:

- Transportation Master Plan, 2013-2030. Update anticipated in 2022.
- Lake Washington School District (LWSD), Six-Year Capital Facility Plan, updated and adopted annually by LWSD staff.

In addition, a non-motorized trails plan is proposed to be developed. Utility-related plans are addressed in the Utilities chapter of this report.

More detailed descriptions of plans, policies, regulations, programs, and partnerships for the following topics are located within their individual sections of this report.

- City Hall
- Parks and Recreation
- Maintenance and Operations Campus
- Fire and Emergency Management Services
- Police Service

## Current Conditions

This section will address current conditions for City services that require capital facilities. However, not all Redmond services require a capital facility and, therefore, maintenance and replacement costs will not apply to those services. The following city services do not have city-owned facilities and services are contracted by outside providers:

- Solid waste: Services are provided through a City contract with Waste Management for the collection of garbage, recycling, yard debris, and food scraps.
- Sewer treatment: Services are provided by King County and depending on where a property is in Redmond, there is one of two facilities that will treat its sewage – either the Brightwater Treatment Plant north of Woodinville or the South Treatment Plant in Renton.
- Telephone and Cable: Telephone service for Redmond is provided by Frontier and Comcast Communications and wireless phone service is provided by various providers. Cable services are provided by Comcast. These services are provided by negotiated mutually beneficial franchise contract agreements.

## City Hall

City Hall is the core facility for City administration, housing most City department offices, City Council spaces, conference rooms and a customer service center for the public to access City services such as permitting, business licensing, bill payments and issue reporting. City Hall is a LEED Silver certified building and opened in December 2005 as part of the Municipal Campus. The large expanse of lawn adjacent to City Hall is the site of the former Redmond City Hall, demolished in early 2005. The current four-story, 113,068 square-foot building showcases a two-story lobby with 25-foot windows, a prominent staircase to the second-floor lobby or “bridge” and exterior decks.

In 2017, the City moved the customer service desk to a newly designed customer service counter on the ground floor of City Hall. The Customer Service Center provides a single and centralized location for Redmond residents, businesses, and visitors to access City services. At the same time the City added seven new conference rooms on the first floor of City Hall, increasing the amount of meeting room space and its accessibility.

Parking for employees and guests is provided by an above-ground parking garage, as well as limited on-site parking directly east of City Hall. In recent years, electric vehicle charging stations have been installed at the City Hall parking lot, which provide electricity to electric vehicles at no cost to the user.

## Plans, Policies, Regulations, and Programs

Some key observations identified in the *2019 Facilities Strategic Management Plan*:

- Some spaces in City Hall are at capacity, while others are underutilized or vacant.
- Department locations within the building do not necessarily reflect ideal adjacencies to support collaborative relationships. (Since the report, office space in some departments have been reconfigured and, in some cases, staff have been relocated near other groups to foster synergy between working groups.)
- The City has recorded an increase in security incidents at City Hall. In response, access control measures have been implemented in the building.

## Partnerships

The facility is maintained by Wright Runstad property management, with its own on-site staff.

## Maintenance and Operations Campus

Park Operations and Public Works perform maintenance on City facilities and infrastructure. They are based at the 8.63-acre Maintenance and Operations Campus (MOC) in southeast Redmond. The City of Redmond reviewed existing conditions and capital facilities for the MOC as part of the 2019 City of Redmond Facilities Strategic Management Plan.

The MOC has twelve primary buildings, including administrative offices, core crew support facilities, shops, a decant facility, a fuel station used by all City departments, and multiple structures used to store vehicles and materials. The MOC facilities do not support their function; their condition, size, and layout limit workforce efficiency, collaboration opportunities, emergency response, inventory security and management, and workplace quality. These deficiencies were compounded by the Fall 2016 relocation of staff from the Sammamish River Business Park to the MOC.

### Plans, Policies, Regulations, and Programs

Key considerations identified in the *2019 Facilities Strategic Management Plan*:

- Inadequate reporting, dispatch, and meeting areas.
- Undersized and poorly equipped office space with respect to A/V support and pinup or whiteboard space.
- Undersized crew locker rooms, restrooms, and storage.
- Undersized fleets shop.
- Inadequate or nonexistent gear drying, decontamination, and laundry facilities
- Inefficient and poorly defined site circulation, creating operational challenges and potential safety risks.
- Unavailable heated parking required for certain vehicles
- Undersized, inefficient, and outdated warehousing, inventory control, and storage of materials and equipment

Remediating all these conditions will require capital expenditures funded through the budget process.

## Parks and Recreation

Redmond's park system consists of 1,351 acres of land and is comprised of 36 developed parks, six undeveloped parks, and five partially developed parks. The Redmond Watershed Preserve, a Resource Park east of the main city limits, represents more than half of the total acres. The parks are classified by the following categories:

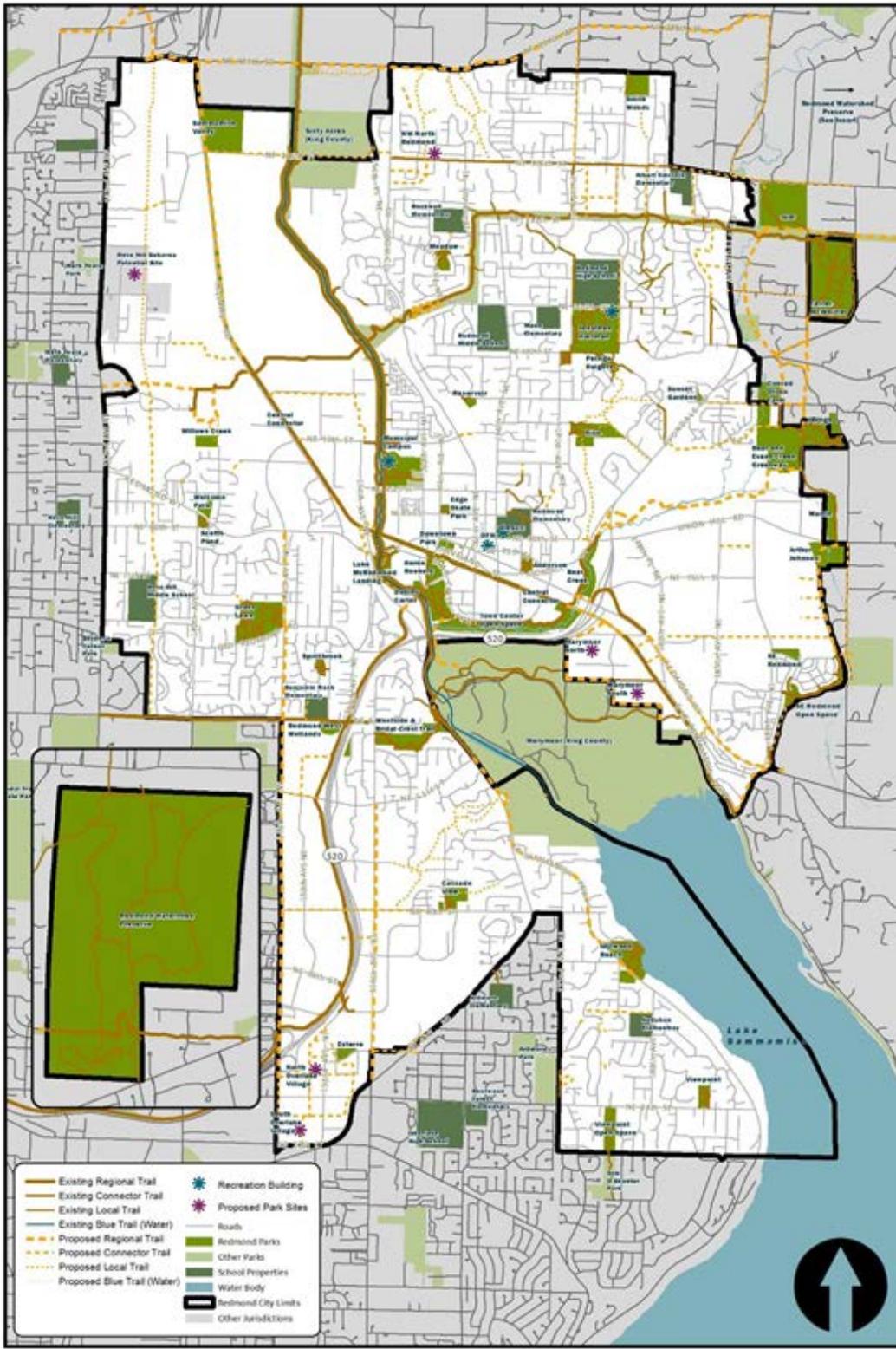
- Community Parks provide opportunities for active and passive recreation to the region.
- Neighborhood Parks are small and typically accessed by foot or by bicycle.
- Resource Parks are natural areas that the City intends to preserve.
- Urban Parks are located primarily in Redmond's urban center and function as spaces to host community events and provide recreation opportunities.
- Trail Corridors are park spaces that prioritize public trails.
- Community Center Properties support community centers and other recreation facilities and do not provide any opportunities for outdoor recreation.
- Private Parks are created to comply with zoning regulations to serve developments.

Capital projects in the 2017-30 PARCC Plan were prioritized using rating criteria. Each of the categories (e.g. parks and recreation, trails, and maintenance and operations projects) had a separate set of rating criteria. The criteria addressed the following:

- Safety Hazard
- Preserve/Replace Asset
- Geographic Equity
- Walkability/ Connectivity
- Community Demand
- Service Delivery
- Unique Benefits
- Customer Service

Chapter 10 of the 2017-30 PARCC Plan includes a complete list of capital projects prioritized by existing and projected needs. The adopted 2021-22 Budget lists the funded Parks Department capital projects. The budget also includes a list of priority projects that could be funded in 2023-26 if funding becomes available.

FIGURE 1 - EXISTING AND PROPOSED PARK SYSTEM MAP<sup>1</sup>



<sup>1</sup> City of Redmond Parks Department 2017

## Capital Facilities

The Parks Department operates all park facilities, the Old Fire House Teen Center, the Redmond Pool and the Redmond Community Center at Marymoor Village, a 20,000 square-foot leased building offering activities and room rentals seven days a week.

Key considerations that may impact future policies and funding decisions:

- Old Fire House Teen Center
  - Although the Teen Center is well-liked by users, it is not purpose-built; its configuration does not adequately support its program and impedes supervision (*2019 Facilities Strategic Management Plan*)
  - The facility's live music programming may not be compatible with future development in the surrounding area. (*2019 Facilities Strategic Management Plan*)
- Senior Center
  - The Redmond Senior Center closed in September 2019 after it was discovered that the structural integrity of the building was compromised and could not be occupied until structural repairs were made. City Hall was used to partially fill the programmatic role of Senior Center before the COVID pandemic.
  - A structural review of the Center showed the building needed to be renovated or demolished and rebuilt. The Center was demolished in November 2020.
  - In October 2020, Council unanimously authorized the Mayor to repurpose \$15 million allocated for a Redmond Senior and Community Center in the 2019-2020 budget. The budget will fund additional community involvement and the design of a new facility to be located on the site of the former Redmond Senior Center.
- Redmond Pool
  - The pool was closed in 2019 for substantial rehabilitation work and is expected to be completed in the 1Q 2021.
  - Currently, the City is investigating the viability of partnering with neighboring jurisdictions on a joint regional aquatic center.
- Other Community Spaces
  - The PARCC Plan calls for parks and public gathering spaces especially in Downtown and Overlake where population densities are highest, including indoor recreation space.
  - The City leases space for the Redmond Community Center at Marymoor Village and will need to determine how that space factors into long-term plans, especially considering its location in an area of Redmond that is expected to redevelop with additional density.

## **Plans, Policies, Regulations, and Programs**

The Parks, Arts & Culture, Recreation, and Conservation Plan (PARCC Plan), adopted in 2017, serves as the strategic document for the Parks and Recreation Department from 2017-2030. This plan was an update to the 2010 PARCC Plan, as required by the Washington State Growth Management

Act<sup>2</sup>. Also, the Washington Recreation and Conservation Office (RCO) requires that the PARCC Plan be updated every six years as a condition for grant funding. This guiding document provides a priority list for capital project implementation, as well as a strategic direction to further policies and priorities outlined in the City's Comprehensive plan. An update to this plan is anticipated by early 2023.

## **Partnerships**

There are several entities that own and operate public lands or facilities that are available to Redmond residents and visitors including King County, City of Bellevue, Lake Washington School District, Puget Sound Energy, and other private entities. There are about 1,800 acres of park land owned by others and located within one-quarter mile of Redmond.

King County Parks & Recreation Division is responsible for the most popular King County park operating adjacent to Redmond city limits: Marymoor<sup>3</sup>, a 640-acre park with recreational activities, rare amenities such as a bird watching sanctuary, P-patch, velodrome; event venues and an off-leash dog area.

## **Fire and Emergency Management Services**

The Mission of the Redmond Fire Department is to continuously protect and preserve life and property through quality education, prevention, disaster preparedness, and rapid emergency response within their 45 square mile service area which includes the City of Redmond and the surrounding area of unincorporated King County within King County Fire District 34.

The King County Fire District 34 was created in 1948 to provide fire protection services for the unincorporated areas surrounding Redmond. The Fire District provided services to the City of Redmond during the early years of the District. However, the current partnership is for the City of Redmond to provide services to the Fire District through a contract that is set to expire in 2022. The District is approximately 28 square miles and has an estimated population of 23,000 residents. Fire protection services are provided from three fire stations located in the District. The District is governed by a three-member Board of Commissioners that are elected to a six-year term.

The fire department has four divisions to provide services to the City and surrounding areas: fire suppression, emergency medical services, emergency management and preparedness, and fire prevention. Additional support services are also provided to include apparatus maintenance and purchasing.

### Capital Facilities

The Fire Department's nine facilities include seven fire stations, a fleet maintenance building, and a storage building for the Community Emergency Response Team. The fleet (engines, medic,

<sup>2</sup> City of Redmond PARCC Plan, 2017.

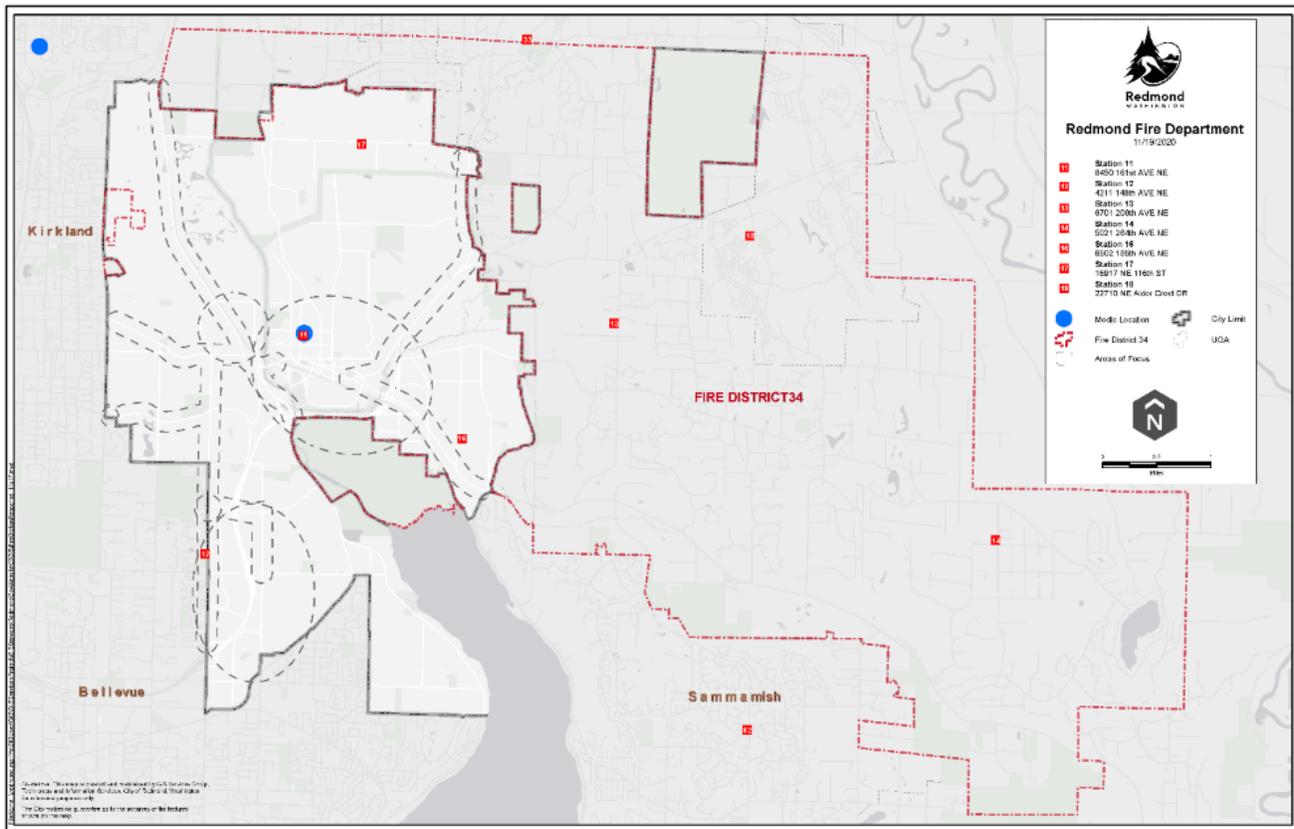
<sup>3</sup> King County, Marymoor Webpage, 2020.

command vehicles, etc.) contains 30 vehicles, including six fire engines, two ladder vehicles, and six medic units.

Station 11 in Downtown Redmond serves as the headquarters for fire services.

TABLE 1 - FIRE STATION NEIGHBORHOOD ASSIGNMENTS

<b>Neighborhood</b>	<b>Stations</b>
Bear Creek	11
Downtown	11
Grass Lawn	11/12
Willow/Rose Hill	11
Idylwood	12
Overlake	12
SE Redmond	16
Education Hill	17
North Redmond	17
Sammamish Valley	11/17

FIGURE 2 -FIRE SERVICE AREA<sup>4</sup>

Fire stations, along with hospitals and police stations, are designated as essential facilities by building code. Fire station seismic upgrades are crucial to ensure safe and uninterrupted operation of regional critical facilities after an earthquake. Seismic upgrades for essential facilities must go beyond “life safety” standards to a higher level of protection. This is to minimize damage so that these facilities have an improved capability to respond to emergencies after an earthquake.

To address this concern, seismic upgrades are underway at fire stations: 14, 16 (along with its adjacent fleet shop), and 18. Upgrades at fire stations 14 and 18 are funded by Fire District 34’s 2019 budget.

Three fire stations located outside of city limits are owned by Fire District 34 but operated by Redmond through a use agreement. The quantity and locations of existing fire stations are generally adequate, but facility condition and size challenges remain.

The Training Division uses three different facilities:

1. The Captain and Lieutenant are located at Station 17
2. The Battalion Chief and administrative support are located at Station 11
3. The Fire Department has limited access to the training tower and associated training facilities at Bellevue Fire Department.

<sup>4</sup> City of Redmond GIS Services, 2020

There is no fire training ground that meets the Washington Surveying and Rating Bureau (WSRB) requirements for a facility dedicated to the full range of required training. Not having one impacts the WSRB rating. The City of Redmond does have some towers which can be used for hose stretching exercises, where firefighters can charge the hose line up the tower and spray the water outside. However, because firefighters are unable to perform any smoke training at those towers, the WRSB does not consider these sites to be full training towers.

### **Plans, Policies, Regulations, and Programs**

At the time of this existing conditions report (January 2021), the City of Redmond is drafting an updated Redmond Fire Strategic Plan. The plan is expected to be completed and adopted in 2021. The scope of the plan will include the following assessments of the Fire Department:

- Operations
- Response capabilities
- Staffing
- Facility Conditions
- Facility Renovation/Replacement Recommendations
- Financing
- Community Risk Factors
- Demand Projections
- Other resources necessary for the delivery of services to the community.

Other plans, regulations, policies, and programs that are relevant to Fire service include:

- RCW 19.27 and WAC 51-54A-0404 Fire safety and evacuation plans.
- The City of Redmond has adopted the International Fire Code (IFC) applicable to new construction.
- The City of Redmond established Fire regulatory authority is contained within [2.52 RMC](#). This chapter creates the Fire Department, defines its composition, and provides authority for right of entry.
- The City has adopted impact fees for fire-related capital improvements to meet City fire levels of service. The rate schedule applies to residential and non-residential uses. The Fire impact fees will be recalibrated in 2021 with the adoption of the Fire Functional Plan update.
- There is a firefighter/paramedic assigned to the Training Division. This position is a liaison to the Medic One program. Through this connection, emergency medical services training is conducted for the Fire Department. The Medic One system provides support to Redmond and other departments to provide basic EMT classes for new recruits.
- Redmond Comprehensive Emergency Management Plan (CEMP), 2015. The CEMP specifies the authorities, functions, and responsibilities that pertain to establishing collaborative action plans between City departments, local, state, federal, volunteer, public, non-profit and private sector organizations. It also contains detailed information on participant Emergency Support Functions (ESFs). By coordinating all phases of emergency management, the CEMP helps minimize the impacts of incidents in the City of Redmond.
- King County Regional Hazard Mitigation Plan (KCRHMP), 2020 and associated Redmond Specific Annex, 2015 and Redmond Pandemic Plan Annex 2020. The plan addresses Redmond's risk of vulnerability and impact of hazards such as: avalanche, earthquake, flood,

landslide, severe weather, tsunami/seiche, volcano, wildfire urban interface, civil disturbance, cyber-attack, dam failure, hazardous materials incidents, public health emergency, structure fire, terrorism. The plan enumerates mitigation strategies and describes how they are managed by a city interdepartmental collaborative process with monitoring by King County.

## Partnerships

The Emergency Management Division (EMD) currently coordinates volunteers in the following programs under the umbrella organization Redmond Citizen Corps Council (RCCC): Amateur Radio Emergency Services (ARES) Community Emergency Response Team (CERT), Medical Reserve Corps (MRC). Use of an umbrella organization permits the growth of services that are tailored to the needs of the City and community. It provides for expansion or contracting based on resource gaps, current technology, and available resources.

Chapter V, Section C.5 of the City's Comprehensive Emergency Management Plan (CEMP) states "mutual aid agreements (MAAs) should be implemented to assure support from alternate sources" for when the City's resources have been depleted. The City has two mutual aid agreements (MAAs) with WSDOT that allow the City to request and receive requests for assistance in responding to emergencies. In this way, MAAs increase Redmond's emergency response capabilities. The Agreements do not obligate any agency to provide resources to others but will serve as an additional tool available for emergency response. Many of Redmond's neighboring cities and agencies are currently signatories to these agreements, including: King County, Bellevue, Kirkland, Sammamish, Issaquah, and Seattle Department of Transportation.

## Police Service

The Police Department is based out of the Public Safety Building (PSB) on the Municipal Campus. The PSB contains a variety of specialized functions in addition to department offices, including the City's 911 dispatch center and data center. The PSB recently underwent a phased renovation. The initial phase addressed water intrusion and seismic deficiencies. The 2019-20 budget allocated funds for Phase II to resolve deficiencies that would extend the service life of the building and improve energy efficiency including upgrades to the electrical, fire, and mechanical systems. So far, PSB capital improvement work has included:

1. Roof replacement
2. Roof and wall insulation
3. Installation of energy-efficient windows
4. New metal siding
5. Addition of steel structural bracing for seismic purposes
6. Replacement of all lockers in the men's and women's locker rooms
7. Modification of the fire suppression system
8. Replacement of several heat pumps

Key challenges identified in the *2019 Facilities Strategic Management Plan*:

- Reconfigured spaces at the Public Safety Building created through incremental renovations over time are not well served by the building's HVAC systems.
- Electrical and mechanical systems are poorly documented and coordinated and reaching the end of their useful lives.

- PSB parking is inadequate for the personal and fleet vehicles required to support 24/7 operations.

### **Plans, Policies, Regulations, and Programs**

Peace officer power and duties are defined by state statute in RCW 43.34 and RCW 10.93 and adopted by the Redmond Municipal Code. The guiding document for police service is the 2014 Police Functional Plan. An update to this functional plan is anticipated for adoption in 2Q 2021.

Programmatic components in the Police Department include:

- Contracted services with IKRON Greater Seattle to provide grant-funded Mental Health Professionals to co-respond with police to people in crisis and provide follow-up services and training. The grant is funded by WASPC - Washington Association of Sheriffs & Police Chiefs.
- Community Court: The establishment of a community court as an alternative problem-solving court. It differs from a traditional court in that it seeks to identify and address the underlying challenges of court participants that may contribute to further criminal activity. Its goal is to build stronger and safer neighborhoods and reduce recidivism. Seattle and Burien have both adopted this Redmond model.
- Partnering with Redmond's Homeless Outreach Coordinator by the police Mental Health Professional, Police Bike Unit, and Patrol Officers to assist with court diversion.

### **Partnerships**

The Redmond City Police Department collaborates with numerous entities to facilitate programmatic training, create financial efficiencies, and optimize services. A brief summary of partnerships is listed below.

- King County Regional Force Investigation Team (to independently investigate critical incidents, such as officer-involved use of deadly force)
- FEMA grant-funded Tri-County Regional Complex Coordinated Terrorist Attack (CCTA) program (King, Peirce, Snohomish Counties) to provide training, preparation, and coordination of fire and the police response to mass casualty incidents
- Redmond police participate cooperatively with federal task forces, such as ICAC - Internet Crimes Against Children Task Force, FBI Safe Streets Task Force, JTTF Joint Terrorism Task Force, USSS (Secret Service) Electronic Crimes Task Force
- Board Membership and dedicated Crime Analyst grant-funded Financial Fraud and Identity Theft Task Force through WA State Commerce Dept
- Marine Patrol for Lake Sammamish is provided via contract with KCSO. Animal Control Services are provided via contract with
- Jail services are provided via contract with South Correctional Entity & King County.
- For scenes requiring major investigations, Redmond's Criminal Investigation Division partners with the WSP Crime Scene Response and Crime Lab.
- Redmond City Police partner with King County Regional Automated Fingerprint Identification System (AFIS) to provide mobile and field fingerprint capabilities.

## Trends Analysis

The City continues to direct its limited resources, as well as federal and state funding, to those areas which are key to its future. The main trends or guiding principles for capital facilities include:

- Preserving and maintaining existing facilities,
- Resolving existing deficiencies,
- Planning for new facilities to accommodate growth consistent with current levels of service,
- Enhancing community character with projects that enable community building and support economic vitality, and
- Creating a financing plan to fund capital improvement projects at city facilities.

The City of Redmond strives to conduct effective asset management, by meeting a required level of service in the most cost-effective way through the planning, acquisition, operation, maintenance, rehabilitation and disposal of assets to provide for present and future customers.

## Policy Considerations

The Redmond 2050 comprehensive plan update will include review of the policies in the Capital Facilities Element (last updated partially in 2018), with a focus on addressing the considerations raised by each section in this report. The overall goal of policy revisions is to address major facility needs and the framework used to fund and build capital projects that align with the comprehensive plan vision and the Redmond 2050 themes of equity and inclusion, sustainability, resilience, and being a technology forward community.

Below is a discussion on broad framing tools that guide policy review for the various capital facility topics. After the topics are discussed, this report provides a preliminary collection of policies that have been identified for review based on the four themes of the comprehensive plan update.

### City Hall

Policy review would include focus on the following considerations:

- Redefining level of service expectations with the community through outreach
- Identifying possible synergies through co-location and partnership opportunities
- Resolving facility issues
- Maintaining facility conditions

### Parks and Recreation

Policy review would include focus on the following considerations:

- About half of the City's resident population has access to children's play, whereas the City's goal is 100%.
- About 54% of the target population can access outdoor sports and fitness facilities. The City's goal is 100% of residents and 25% of employees.
- Currently, the trail system provides access to trails for 34% of the target population; up to 66% are within one-quarter mile of a trail access point. The City's LOS is to achieve access by 100% residents and 25% employees.

- While there are parks in the Downtown Urban Center, none exist in the Overlake Urban Center though one is planned to open in 2022.

In addition, the PARCC Plan contains policies that have been impacted by recent budget constraints due to the COVID pandemic, such as policy PR-3 Provide opportunities to improve personal health and community connections by providing a variety of parks and recreation facilities and programs.

## Fire and Emergency Management Services

Policy review focuses on the considerations listed below:

- Population growth for the City of Redmond (and across the region) is expected to continue increasing. To accommodate the Puget Sound Regional Council growth target allocations, it is likely that Redmond will see an increase in low-rise, mid-rise and high-rise structures. These types of structures require a much different approach than a residential structure in terms of firefighting strategies and tactics.
- Comprehensive Plan policies that involve services for the urban centers will be most relevant to Fire service due to concentrated populations and taller structures. This includes policies centered around infrastructure, levels of service, and growth allocations.

## Police Service

Policy review focuses on the considerations listed below:

- Though the Public Safety Building has been seismically upgraded, it is in a liquefaction zone, where an earthquake may render access to the area impassible. This could impact the capabilities of the 911 Dispatch Center and Emergency Coordination Center.
- It is best practice to provide secure parking for personal and patrol vehicles due to safety and vandalism concerns. The existing secure parking at the PSB is inadequate for the number of vehicles required to support 24/7 operations with overlapping shifts. The Mobile Command post is an oversized vehicle without adequate secure parking.
- Regional efforts, including Redmond joining a regional SWAT team and a potential shared dispatch center, have unknown implications for Police's facilities needs but may require construction or modification of Police facilities in the future.
- Growth in Overlake and light rail expansion will likely impact policing needs and may require additional Police presence in the area. As congestion increases, satellite storage for emergency response equipment, e.g. barricades, may be needed.

## Policy Review – Four Themes

Broadly, the policy review for Comprehensive Plan elements are framed within four themes:

1. Resiliency & Economic Recovery
2. Equity & Inclusion
3. Technology Forward (“Smart City”)
4. Sustainability

Specific policies for review are discussed below, organized by the four themes

## **Resiliency & Economic Recovery**

**CF-2.5 Ensure that functional and strategic plans address emergency preparedness needs as applicable including:**

- Seismic retrofits;
- Infrastructure resiliency (“Safe-to-fail”) mechanisms including backup power generation, resilient network infrastructure, and communications; and
- Methods and facilities (“Alternative Service Centers”) to provide essential services including shelter, food and water, medical care, cleanup, and restoration. Local alternative Service Centers in areas of the City less susceptible to hazards liquefaction, landslides, and floods.

This policy will be reviewed in the context of the global COVID-19 pandemic to determine if other types of emergency preparedness should be included.

**CF-12 Use capital facilities to attract growth to centers by:**

- Giving priority to funding for public facilities and services within the Downtown and Overlake Urban Centers,
- Creating a mechanism to provide ongoing capital funds for Redmond’s Urban Centers, and
- Prioritizing projects outside these Urban Centers that will increase mobility to and from the centers.

This policy bolsters growth in urban centers by prioritizing urban centers. As part of the Redmond 2050 update, future considerations for urban centers include up-zoning to accommodate allocated growth targets. Redmond’s urban centers will also contain multiple light rail stations. This policy will be reviewed to determine if any additional clauses or considerations should be added to further resiliency and economic recovery.

## **Equity & Inclusion**

**CF-5.5 Engage the community during the capital planning and implementation process to seek input, inform direction and provide updates.**

This policy will be reviewed to determine if any additional clauses or considerations should be added to strengthen engagement in order to find opportunities for increased effectiveness in actualizing equity and inclusion throughout the capital facility planning process. The focus should be on process equity to ensure inclusive, open and fair access for all stakeholders to decision processes that impact community and operational outcomes.

## **Technology Forward (“Smart City”)**

Multiple policies will be reviewed to determine how technology and “smart city” principles could be included. Further review will be conducted to determine appropriate levels of specificity for technology language in policies. The Focus should be on utilizing technology to respond more rapidly and effectively to incidents and service interruption.

## **Sustainability**

**CF-5 Require that properties, when they develop or redevelop, construct or contribute to improvements as identified in adopted plans.**

Redmond is undergoing significant population growth, and environmental sustainability considerations may warrant adding provisions to this policy to meet community goals.

DRAFT

## Existing Conditions

# Utilities

## Introduction

The Utilities Element of the Redmond Comprehensive Plan provides policy direction for planning for and placing utilities in Redmond to support the community's vision for planned growth, contribute to a high quality of life for Redmond residents and businesses, and protect Redmond's natural environment and resources.

The City operates four utilities: water, wastewater, solid waste/recycling and stormwater, which fall under the management and oversight of staff in the Public Works, Planning, Technology and Information Services, and Finance Departments. In addition, the Utilities Element contains policies related to energy, telecommunications, and hazardous liquid pipelines. City staff engage in a variety of daily tasks - from cleaning sewer lines, inspecting hydrants and wells, reviewing utility plans for construction sites, to restoring salmon habitat. This work ensures that City utilities function in a safe, cost-effective, and efficient manner.

## Federal, State, and Regional Planning Context

### Federal Context

Among federal laws and regulations that affect local utility planning, the 1972 Clean Water Act and federal telecommunications regulations merit a brief discussion.

The 1972 Clean Water Act (CWA) is the primary federal regulation for stormwater management. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

Under the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The Washington State Department of Ecology administers the

## Fast Facts

### In 2019..

- Redmond's wells pumped over one billion gallons of water.
- Redmond supplied water to more than 19,500 businesses, houses, and multifamily units.
- Redmond delivered 35-40% of drinking water from groundwater.
- Redmond operated and maintained 333 miles of water main and 12,650 water main valves
- Construction Site inspectors logged more than 5,100 utility inspections at new and redeveloped sites
- Redmond's Private Drainage Inspection Program visited 265 sites including more than 100 stormwater vaults.
- Redmond's Business Inspectors offered direct stormwater pollution prevention support to 150 businesses.
- Under the City's Solid Waste Program, 643 tons of organics (including food waste) were collected from businesses, multifamily residences and schools and converted to compost at an industrial composting facility.
- 1,360 gallons of hazardous materials were removed and properly disposed of by Redmond businesses.
- Wastewater Utility crews "de-ragged" 38 wastewater pumps or valves to clear blockages.
- Development Services engineers and planners reviewed plans for more than 90 development projects in 2019.
- Construction inspectors logged more than 5,100 utility inspections at new and redeveloped sites.

NPDES program in Washington state. The program requires the implementation of local stormwater management programs. Phase I of the NPDES stormwater permit program applied to only six local governments. Phase II of the NPDES rules extended coverage to operators of regulated small municipal separate storm sewer systems (MS4s), including Redmond, serving less than 100,000 people.

In recent years the Federal Communications Commission (FCC) updated 47 CFR Part 1 regarding telecommunication equipment deployment which prompted municipalities, including Redmond, to revise local codes for compliance. The FCC regulates health concerns of RF frequencies and restricts local jurisdictions from setting additional regulations on frequencies. As the telecommunication regulations and technology progress in the upcoming years, the City of Redmond anticipates that further updates will be needed.

## State Context

Utility planning in Washington is guided by the Growth Management Act (GMA), adopted in 1990 in response to rapid population growth and concerns with suburban sprawl, environmental protection, quality of life and related issues. The GMA requires the establishment and maintenance of the Urban Growth Areas (UGAs). The land within UGAs is designated for urban uses; the land outside UGAs is set aside for rural uses. This division makes the provision of public facilities and services more efficient by providing for contiguous and compact urban lands, while protecting rural resources, such as farming, logging, and fish and wildlife habitats. The GMA requires jurisdictions that fully plan under the GMA, like Redmond, to include a utilities element in their comprehensive plans ([RCW 36.70A.070\(3\)](#)).

Utility planning and operations are also governed by various state laws and regulations. Among these are:

- [WAC 365-196-420](#), which requires that the utilities element of a comprehensive plan contain the general location, proposed location, and capacity of all existing and proposed utilities, including, but not limited to, electrical lines, telecommunication lines, and natural gas lines.
- [WAC 173-240-050](#) sets minimum requirements for general sewer plans adopted by local governments.
- [Chapter 90.48 RCW](#) addresses water pollution control. RCW 90.47.035 provides the Washington State Department of Ecology rule-making authority to regulate water quality standards; implemented by WAC 173-240-010.
- [Chapter 35.99 RCW](#) addresses Telecommunications and Cable service permitting in right-of ways.
- [Chapter 70A.205 RCW](#) requires that each county, in cooperation with the cities located in the county, prepare a coordinated, comprehensive solid waste management plan. Redmond approved the King County Solid Waste Management Plan on July 2, 2019.

## Regional Planning Context

Redmond participation in regional issues simultaneously advances the interests of the Redmond community and works toward regional goals. Some of these collaborative efforts are with:

- Puget Sound Regional Council, the metropolitan planning organization that develops overarching multicounty planning policies for the four-count Seattle metropolitan area. A deeper analysis of specific multicounty planning policies is discussed later in this report.
- Cascade Water Alliance (CWA), a regional water supplier. Redmond's drinking water aquifer provides roughly 40% of Redmond's drinking water needs; the remaining 60% comes from the CWA.
- American Public Works Association Stormwater Managers
- Puget Sound Partnership, a state agency leading the region's collective effort to restore and protect Puget Sound. The Partnership created and now manages the infrastructure needed to enable and encourage partners to come together to develop and implement priority actions needed to accelerate ecosystem recovery.

## Puget Sound Regional Council

The Puget Sound Regional Council (PSRC) develops policies and makes decisions about transportation planning, economic development, and growth management throughout the four-county Seattle metropolitan area surrounding Puget Sound.

Puget Sound Regional Council's VISION 2050 establishes the following goal for public services, including the provision of utilities: "The region supports development with adequate public facilities and services in a timely, coordinated, efficient, and cost-effective manner that supports local and regional growth planning objectives" (PSRC, 2020). Relevant policies from the VISION 2050 Public Services chapter include:

- **PS-2:** Promote affordability and equitable access of public services to all communities, especially the historically underserved. Prioritize investments to address disparities
- **PS-3:** Time and phase services and facilities to guide growth and development in a manner that supports the Regional Growth Strategy.
- **PS-8:** Develop conservation measures to reduce solid waste and increase recycling.
- **PS-9:** Promote improved conservation and more efficient use of water, as well as the increased use of reclaimed water, to reduce wastewater generation and ensure water availability.
- **PS-13:** Promote the use of renewable energy resources to meet the region's energy needs.
- **PS-16:** Plan for the provision of telecommunication infrastructure to provide access to residents and businesses in all communities, especially underserved areas.
- **PS-22:** Provide residents of the region with access to high quality drinking water that meets or is better than federal and state requirements.

## Countywide Planning Policies

King County has created countywide planning policies (CPPs) that provide a framework for utility planning across local jurisdictions. King County and all cities and towns of King County are responsible for ensuring that their respective comprehensive plans are consistent with and implement the CPPs. Utilities include services and infrastructure that provide water supply, sewage

treatment and disposal, solid waste disposal, energy, and telecommunications. Providing these utilities in a cost-effective way is crucial to upholding the health and safety of King County residents and to implementing the Regional Growth Strategy.

Redmond's utility policies must be consistent with King County CPPs. The following provides a high-level, non-comprehensive, summary of key CPP policy directives.

- **PF-4:** Develop plans for long-term water provision to support growth and to address the potential impacts of climate change on regional water resources.
- **PF-6:** Coordinate water supply among local jurisdictions, tribal governments, and water purveyors to provide reliable and cost-effective sources of water for all users, including residents, businesses, fire districts, and aquatic species.
- **PF-11:** Require all development in the Urban Growth Area to be served by a public sewer system except:
  - a. single-family residences on existing individual lots that have no feasible access to sewers may utilize individual septic systems on an interim basis; or
  - b. development served by alternative technology other than septic systems that:
    - Provide equivalent performance to sewers;
    - Provide the capacity to achieve planned densities; and
    - will not create a barrier to the extension of sewer service within the Urban Growth Area.
- **PF-13:** Reduce the solid waste stream and encourage reuse and recycling.
- **PF-15:** Promote the use of renewable and alternative energy resources to help meet the county's long-term energy needs, reduce environmental impacts associated with traditional energy supplies, and increase community sustainability.
- **PF-16:** Plan for the provision of telecommunication infrastructure to serve growth and development in a manner consistent with the regional and countywide vision.

In addition to the countywide planning policies, King County has its own comprehensive plan. The King County Comprehensive Plan is particularly relevant to utility planning because the plan presents other agencies, such as cities and special purpose districts, with King County's position on large-scale matters such as annexation, urban growth areas, environmental protection and others. For instance, Chapter 9 of the King County Comprehensive Plan addresses services, facilities, and utilities, and includes public sewer systems in urban and rural areas. The provisions and policies generally reflect the premise of countywide planning policies that sewer systems will serve urban areas and, in general, that they are not appropriate to serve rural areas.

Utility planning and operations is also guided by the following King County planning documents:

- 2019 King County Hazard Mitigation Plan - Annex. This plan assesses natural and human-caused hazards that can impact our region and develops strategies to reduce risk and build resilience. Nearly 60 planning partners (including school districts, water districts, and cities) participated in the process and developed annexes to this plan. Redmond City Council approved the City's annex to this plan in 2019. The annex includes a hazard risk summary for sixteen hazards, addresses vulnerable populations, and outlines goals and strategies.
- 2019 King County Solid Waste Plan. Redmond participates in a coordinated solid waste management plan with other King County cities. This plan establishes policy guidance for the

King County solid waste system, which includes six urban transfer stations and four rural transfer facilities, the Cedar Hills landfill, and waste prevention and recycling programs

- Snoqualmie Valley/NE King Community Service Area. This subarea plan is currently underway with anticipated adoption in mid-2023. The plan will establish a vision, goals, and policies to guide development decisions and address future King County services, programs, facilities, and capital improvements. This plan will replace the outdated East King County Community Plan.
- Title 13 of the King County Code sets requirements for water and sewer systems, including a requirement that sewer and water comprehensive plans consider opportunities for reclaimed water. Although Redmond does not operate a wastewater treatment plant, reclaimed water is available to the City from the Brightwater Treatment Plant located in Woodinville.

## Local Planning & Regulatory Context

The Utilities Element of the Redmond Comprehensive Plan guides the planning and operation of utilities in Redmond. The general policy direction of the Comprehensive Plan is that infrastructure and services should meet the needs of a growing population and promote a safe and healthy community. Private utilities, such as solid waste removal and recycling, gas, electric, telecommunications and cable services are provided under franchise or other agreements. For these utilities, the City ensures that sufficient area is available to locate such facilities and provides a reasonable regulatory climate.

Key Utilities Element policies include:

- **UT-27** Ensure that the City of Redmond is the primary provider of wastewater service within the city limits.
- **UT-28** Require connection to the City wastewater system for all new development and for existing uses when development, such as a short plat, subdivision or other significant land use action, occurs to that property. Extend a waiver in limited circumstances where the economic impact of connection is high and there is no public safety concern.
- **UT-31** Support a regional approach to wastewater treatment by contracting with King County for transmission and treatment of Redmond's wastewater.
- **UT-75** Promote decreased energy consumption and enhanced energy efficiency throughout the City's building stock
- **UT-83** Promote a wide range of telecommunications options. This can include:
  - Making City facilities available for placement of antennas,
  - Treating attached cellular base antennas as other building or rooftop appurtenances, and
  - Support website communication between the City and its residents and customers.
- **UT-88** Maintain Redmond's competitiveness in support of businesses, residents and visitors by promoting access to advanced and affordable communications technology citywide.

Other local planning documents that guide the provision of utilities include:

- Stormwater Comprehensive Plan. This is the City's long-range Stormwater and Natural Resources planning document. The plan provides goals and guidance for managing all

aspects of stormwater management and basin planning within Redmond. The plan update is anticipated in 2023.

- The Stormwater Technical Notebook locally adopts and modifies the Washington State Department of Ecology Stormwater Management Manual for Western Washington, as amended, and contains requirements and design standards for stormwater management systems.
- The Watershed Plan will support and reside in the Stormwater Master Plan. This work is anticipated to begin in 2021. Water System Plan, 2011-2017. Some foundational work was completed in 2020 in preparation for the anticipated in 2023 update. This 2011 Water System Plan (Plan) describes the City's water production and distribution facilities, operations, and compliance with State and federal drinking water regulations. This Plan also identifies capital improvements needed to resolve deficiencies, to support continued system maintenance, and to supply future growth within the water service area.
- 2014 General Sewer Plan. The General Sewer Plan is currently being updated with adoption anticipated in late 2021. The Plan will be consistent with the strategy and policies presented in the 2018 King County Comprehensive Plan and will comply with the adopted Countywide Planning Policies, including separate sections addressing the various required planning elements mandated by the GMA. The current plan includes an evaluation of the existing sewer system and identification of additional facilities needed to accommodate the planned growth to comply with state regulations.

## Redmond Regulations

Utility regulations protect Redmond's natural environment and resources. Conservation and protection of existing resources ensures a continued supply of clean water and energy. For example, the City protects the natural environment by developing stormwater systems to prevent or reduce excess stormwater runoff, by designing and upgrading systems and plans to prevent damage to the environment, by fostering conservation operationally and by implementing low-impact development practices. Specific regulations are discussed in the relevant current condition section for each utility.

## Redmond Partnerships

Some issues cross jurisdictional boundaries and so require coordination with federal, state, and local governments, non-governmental organizations, business associations, and other potential partners to ensure that Redmond's interests are fully represented in regional, state and national dialogues. Specific partnerships are detailed in each current condition section. Rather than list every partnership for each utility here, relevant partnerships are described under each utility below.

## Current Conditions

### Water and Stormwater

Utility Infrastructure that keep our water safe, clean and flowing represent a complex mix of pipes, valves, pumps, reservoirs and tanks. Approximately 40% of the City's water supply is provided by groundwater, with the remainder supplied from the Cascade Water Alliance (Cascade). Redmond's Water utility supplies water to more than 19,500 businesses, houses, and multifamily units. City staff operate and maintain:

- 333 miles of water main and 12,650 water main valves (also called isolation valves)

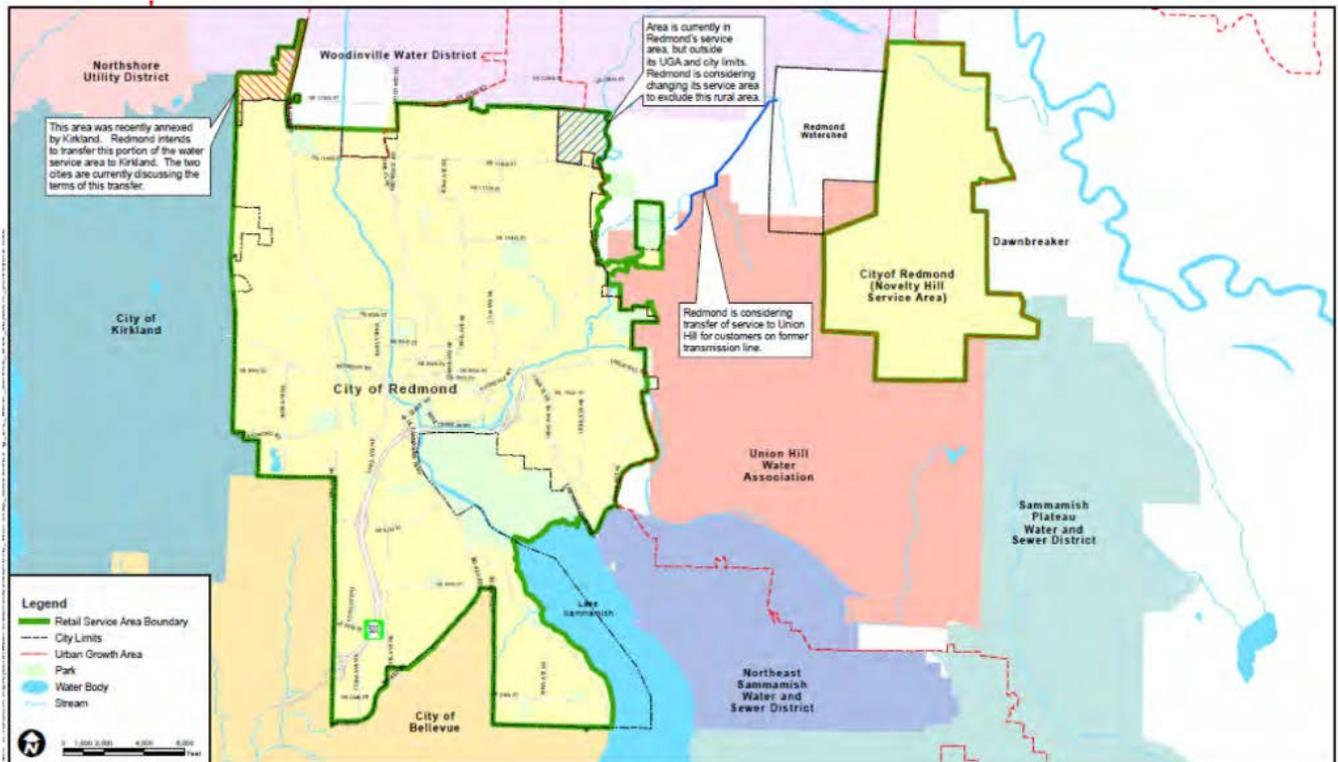
- A groundwater monitoring network of 96 wells throughout the City
- 4,150 hydrants
- Three City-owned pump stations and three pump stations jointly owned with neighboring cities
- Seven City-owned reservoirs three reservoirs jointly owned with neighboring cities.
- Four water service areas: Well Service, Rose Hill, Overlake/Viewpoint, and Novelty Hill, in total containing 22 pressure zones.
- Compliance for 7,395 backflow assemblies to help protect the City's potable water supply (drinking water) from contamination as part of the Cross Connection Control Program.

Customers on the west side of Lake Sammamish and the Sammamish River, as well as those who live in Redmond Ridge and Trilogy Urban Planned Developments, are served with water that comes from the Tolt Watershed in the Cascade Mountains. Customers east of Lake Sammamish and the Sammamish River are served by well water from Redmond's aquifer. During the summer, water from the Tolt is blended with the groundwater to help meet peak summer demand. Water delivered to Redmond's customers is produced from a combination of sources, including five wells owned and operated by the City, as well as regional water supply produced from Seattle Public Utilities' (SPU's) Tolt River source. This regional supply is provided through Redmond's membership in the Cascade Water Alliance (Cascade).

A total of nine reservoirs, one shared with the City of Bellevue and two shared with the City of Kirkland, provide storage capacity to meet routine system operational needs, as well as to support fire suppression and emergency standby requirements. Over 320 miles of piping delivers water throughout the City's distribution system.

See Figure 1 for a map of the service area. The 19,500 customers include a residential population of approximately 70,000 that swells to approximately 115,000 during business hours. Major employers receiving water from the Redmond system include the Microsoft and Nintendo headquarters. The 2016 water demand forecast was 8.2 million gallons per day<sup>1</sup>.

<sup>1</sup> City of Redmond Water System Plan, 2011.

FIGURE 1 - WATER SERVICE AREA<sup>2</sup>

The City of Redmond uses a combination of traditional onsite stormwater management facilities, low-impact development techniques and regional stormwater management facilities. Such facilities may include vaults, ponds, and swales for each development where the developer finances the design and construction of these controls. In commercial sites, property owners are responsible for maintaining the facilities. In residential neighborhoods, these may be turned over to the City to maintain.

Stormwater utility staff:

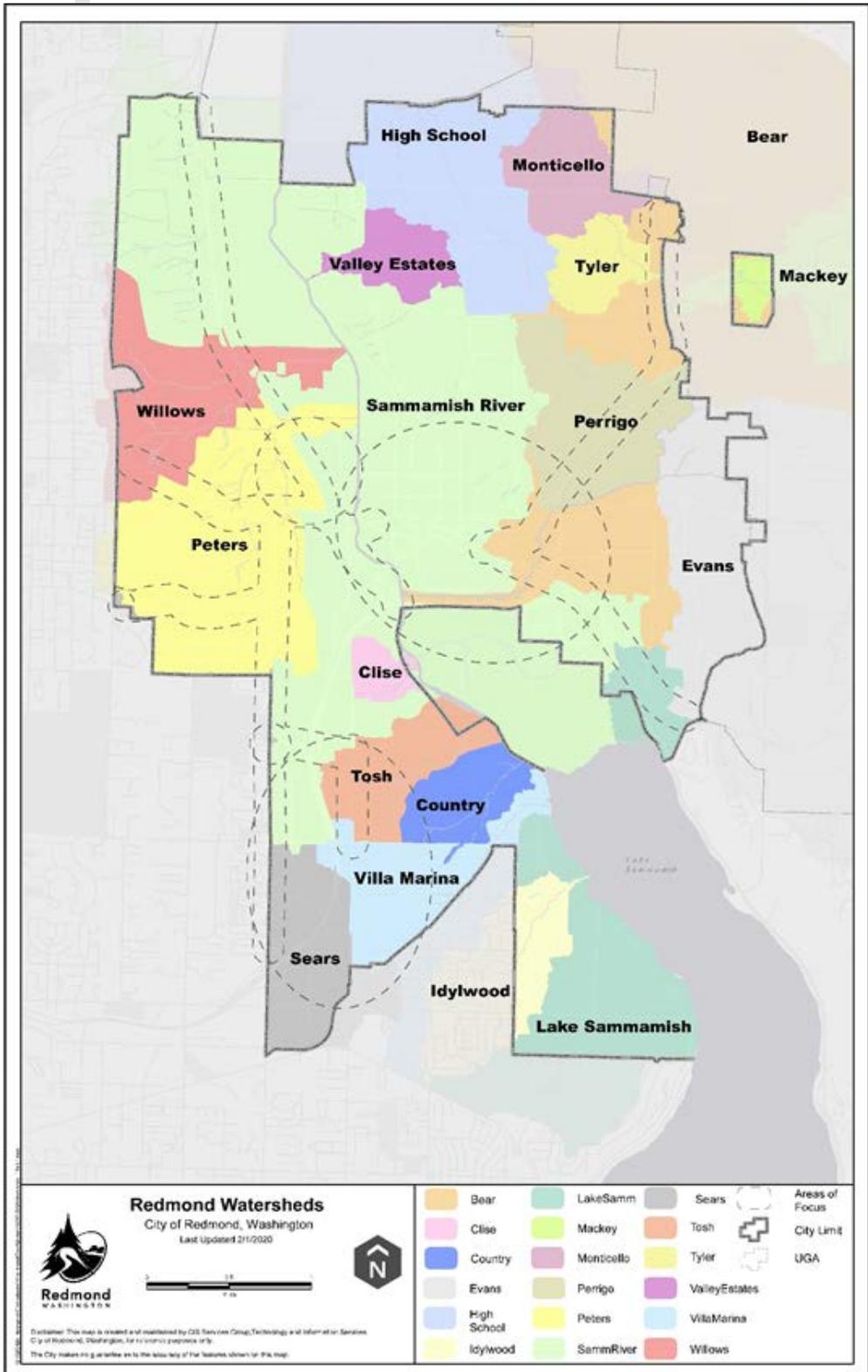
- Ensure that public and private stormwater systems are planned, developed, and maintained to prevent flooding, protect water quality, and preserve natural stormwater systems,
- Monitor water quality and provide leadership and focus for community efforts working toward improved stormwater management,
- Identify needs for capital improvement of the stormwater systems including streams and habitat, and prioritize, select, and construct those improvements,
- Ensure that City construction and maintenance projects are planned and implemented to cause as little, short- and long-term harm as possible to the environment, and
- Are responsible for ensuring proper maintenance and operation of all public and private stormwater systems within the City limits under the City's NPDES permit.

<sup>2</sup> City of Redmond Water System Plan, 2011

A quick “by the number” overview of the stormwater utility reveals:

- More than 323 miles of City-owned pipes, over 11,000 catch basins, and more than 400 stormwater ponds, vaults, and other stormwater management facilities.
- 11 billion gallons of rain that falls on Redmond in an average year to prevent flooding and protect local streams. (Estimate based on the average of 40 inches of rain per year and the 16-square-mile area encompassed by Redmond.)
- Redmond is home to more than 50 miles of streams, in addition to two major creeks (Bear and Evans), the Sammamish River, and Lake Sammamish. Chinook, sockeye, Coho salmon, and other native fish and wildlife call Redmond home.
- Redmond’s Illicit Discharge Detection and Elimination Program investigates all reports of illegal discharges or connections to the City’s stormwater or receiving water networks. City staff respond to 200+ reports annually.
- There are approximately 19 watersheds that lie at least partially within the city limits.
- City stormwater crews inspected 100% of the 2,733 City-owned catch basins and cleaned 1,423 of those that required cleaning.

FIGURE 2 - WATERSHEDS<sup>3</sup>



<sup>3</sup> Source: City of Redmond GIS Services, 2020.

## Regulations and Programs

Water resources are important City assets that require significant management, capital investment and maintenance. The local regulatory framework that guide the management of these resources includes the following:

- RMC 15.24 contains stormwater management regulations for development and redevelopment; it codifies the Stormwater Technical Notebook as a supplement to the code.
- RMC 13.06 authorizes the Illicit Discharge Detection and Elimination (IDDE) program designed to prevent contamination of groundwater and surface water by monitoring, tracking, and removing non-stormwater discharges into the stormwater drainage system.
- RMC 13.29 requires that the Mayor shall approve a Water Shortage Response Plan that establishes actions and procedures for managing water supply and demand during anticipated or actual water shortages.
- RZC 21.17.010 sets standards for low-impact development, a stormwater management technique that helps preserve the quality of Redmond's groundwater.

Redmond's stormwater management programs focus on stormwater runoff, groundwater recharge, surface waters, and riparian (water-related) habitat. Programs address basic conveyance of runoff, food hazard reduction, water quality issues, riparian habitat protection, and protection of groundwater quality. It is especially important that new development or significant redevelopment effectively manages stormwater with appropriate facilities to ensure the public's protection.

## Partnerships

The Cascade Water Alliance (Cascade) is a municipal corporation comprised of five member cities (Bellevue, Issaquah, Kirkland, Redmond, and Tukwila) and two water and sewer districts (Sammamish Plateau Water and Sewer District, and Skyway Water and Sewer District). These cities and districts approach water management collaboratively to provide a safe, clean, and reliable water supply.

Kirkland-Redmond-Bellevue Interlocal Agreements address how portions of a water system are owned and operated. These interlocal agreements describe how several water facilities are shared and operated, including;

- Two water tanks with Bellevue and Kirkland
- One reservoir with Kirkland
- Three pump stations with Bellevue and Kirkland

**FIGURE 3 LEASED TELECOM EQUIPMENT MOUNTED ON TOP OF THE ROSE HILL WATER TANK**



To effectively perform their work, stormwater staff collaborate with several organizations including:

- American Public Works Association (APWA) Stormwater Managers Group, an interjurisdictional association of regional stormwater practitioners which share regulatory, technical, product and project information to develop and grow effective stormwater programs.
- STORM (Stormwater Outreach for Regional Municipalities), the focus of which is to design and implement regional public awareness and behavior change programs focused on reducing stormwater pollution impacts.
- NPDES Eastside Coordinators Group, an informal consortium of local governments that work together to understand and implement municipal stormwater permit requirements.

## Wastewater and Solid Waste

Redmond's wastewater system consists of a network of mains, trunks, force mains, and pump stations that transport the collected sewage to King County Water Treatment Division interceptors. The City does not operate a wastewater treatment plant. Most of Redmond's sewage is ultimately transported to the County's Brightwater Treatment Plant. The exception is sewage collected from the Overlake area, which flows to Bellevue and ultimately to the King County Water Treatment Division Renton Treatment Plant.

- Redmond's Wastewater Utility has more than 16,000 sanitary sewer connections.
- The Wastewater Utility actively inspects and cleans more than 233 miles of pipes every seven years.
- The Wastewater Utility routinely inspects and cleans 7,336 manholes.
- Redmond's Wastewater Utility operates 22 wastewater lift stations. City personnel clean these lift stations on a monthly schedule.
- The wastewater system serves a residential population of 69,900 in 9,600 acres (2020) within the City limits and 3,500 residential households in 2,000 acres in the Novelty Hill area.

Aside from serving the area within the city limits, Redmond also provides water and sewer services to Redmond Ridge and Trilogy Urban Planned Developments within the Novelty Hill area located east of Redmond in unincorporated King County. Novelty Hill has been designated as urban and Redmond has agreed to be the service provider for sewer but for pipes only, not treatment. The City will continue to provide service to new growth within the urban growth area that is consistent with City and County planning and service policies.

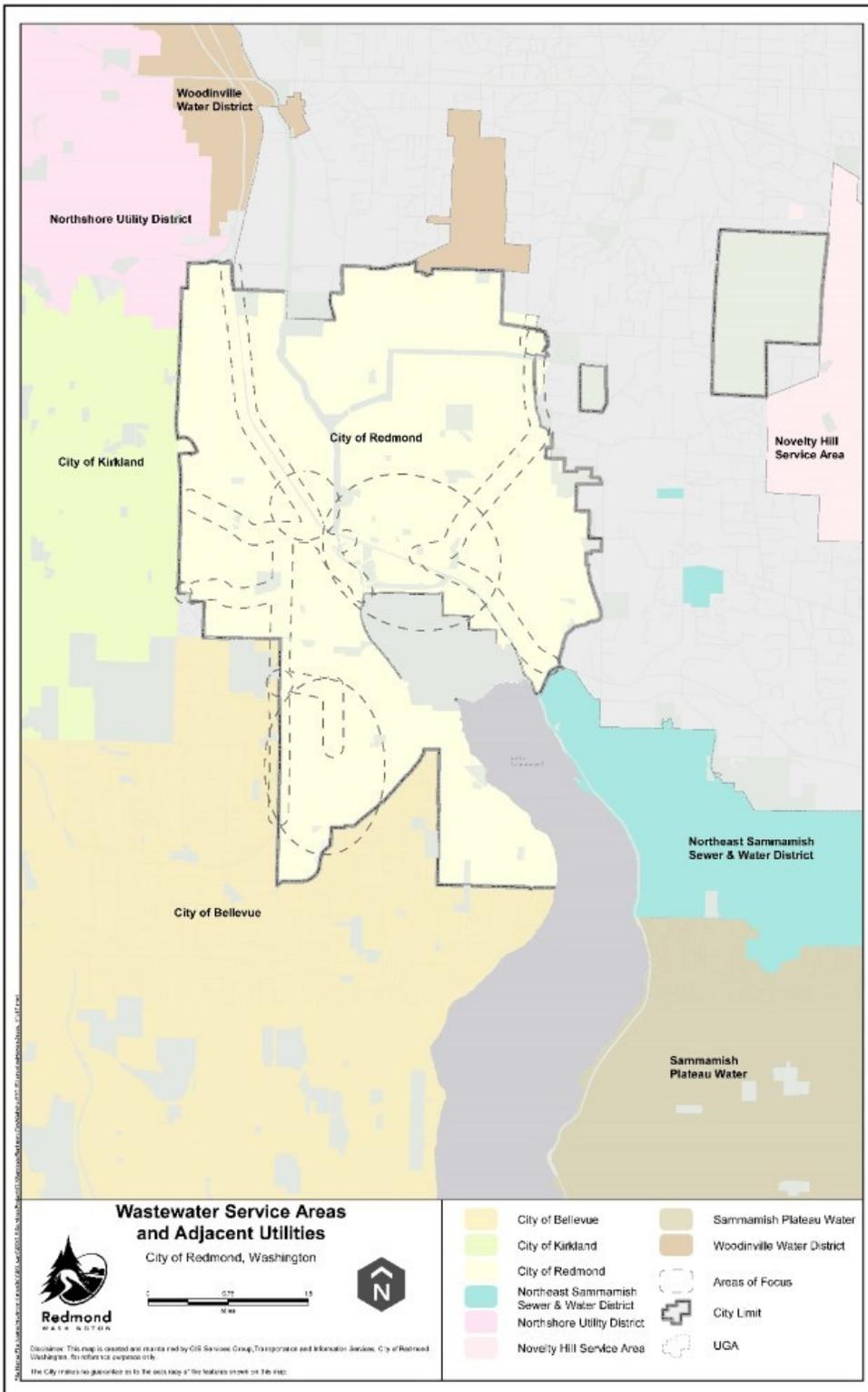
A portion of this area is located north of the Redmond/Woodinville Water District interlocal line. An interlocal agreement with the District allows Redmond to serve Novelty Hill which is now almost completely developed. The single family and multi-family areas have been built out, two schools have been constructed, and only a few undeveloped parcels remain in the business park area, some of which are currently under construction.

While most of Redmond's residents are served by the wastewater utility, some areas still use onsite sewage (OSS) disposal systems. This term typically refers to a system using a septic tank in combination with a drainfield, such as a leachfield or mound. When operating properly, onsite sewage disposal systems are an acceptable means of treating and disposing of sewage on

a small scale. If onsite systems are improperly maintained or constructed in soils with poor percolation rates, OSS disposal systems can fail. Poorly treated septic waste can surface or pond on the site or percolate into the groundwater. Approximately 500 parcels within City of Redmond boundaries are estimated to be on OSS systems.

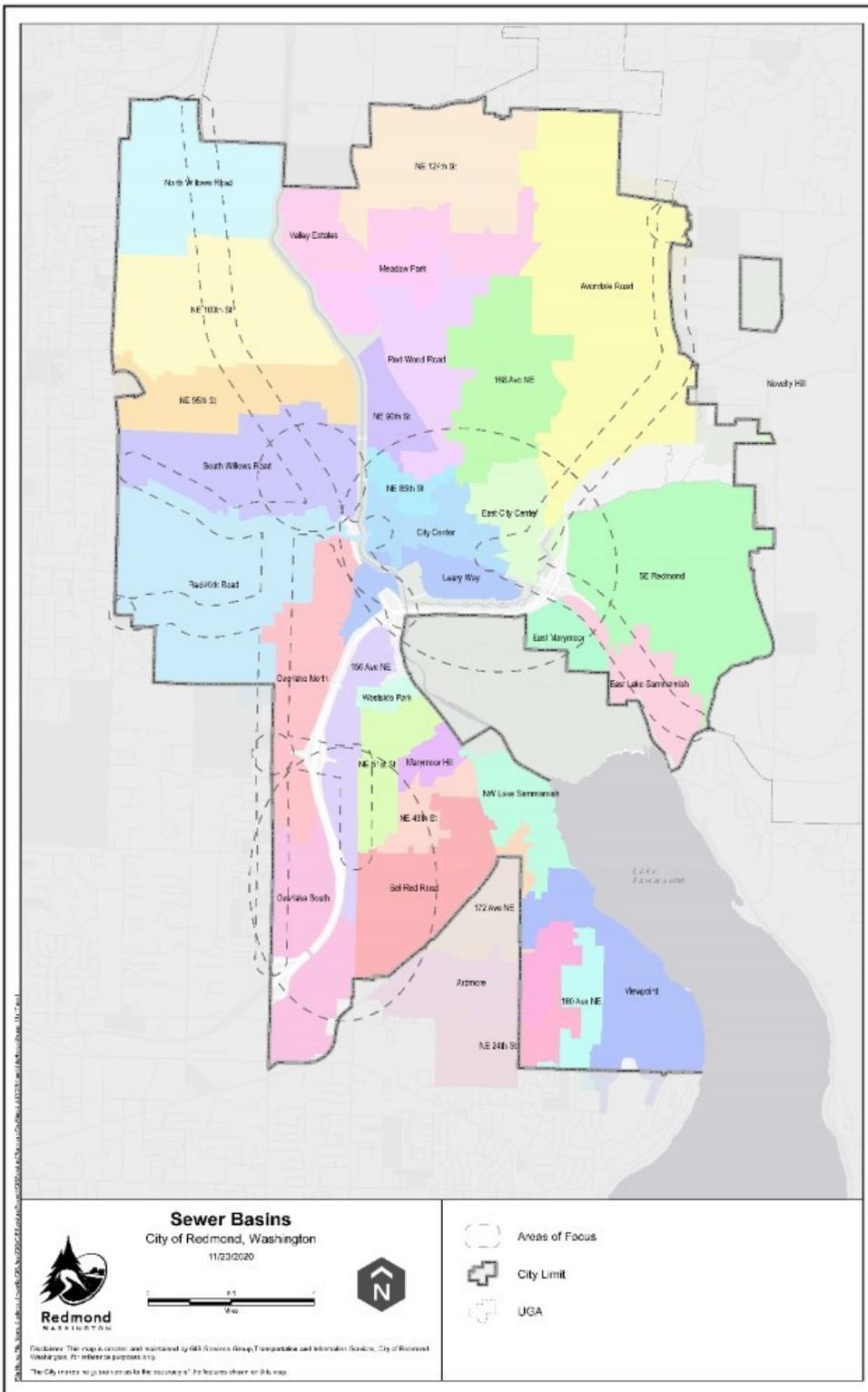
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FIGURE 4 - WASTEWATER SERVICE AREA<sup>4</sup>



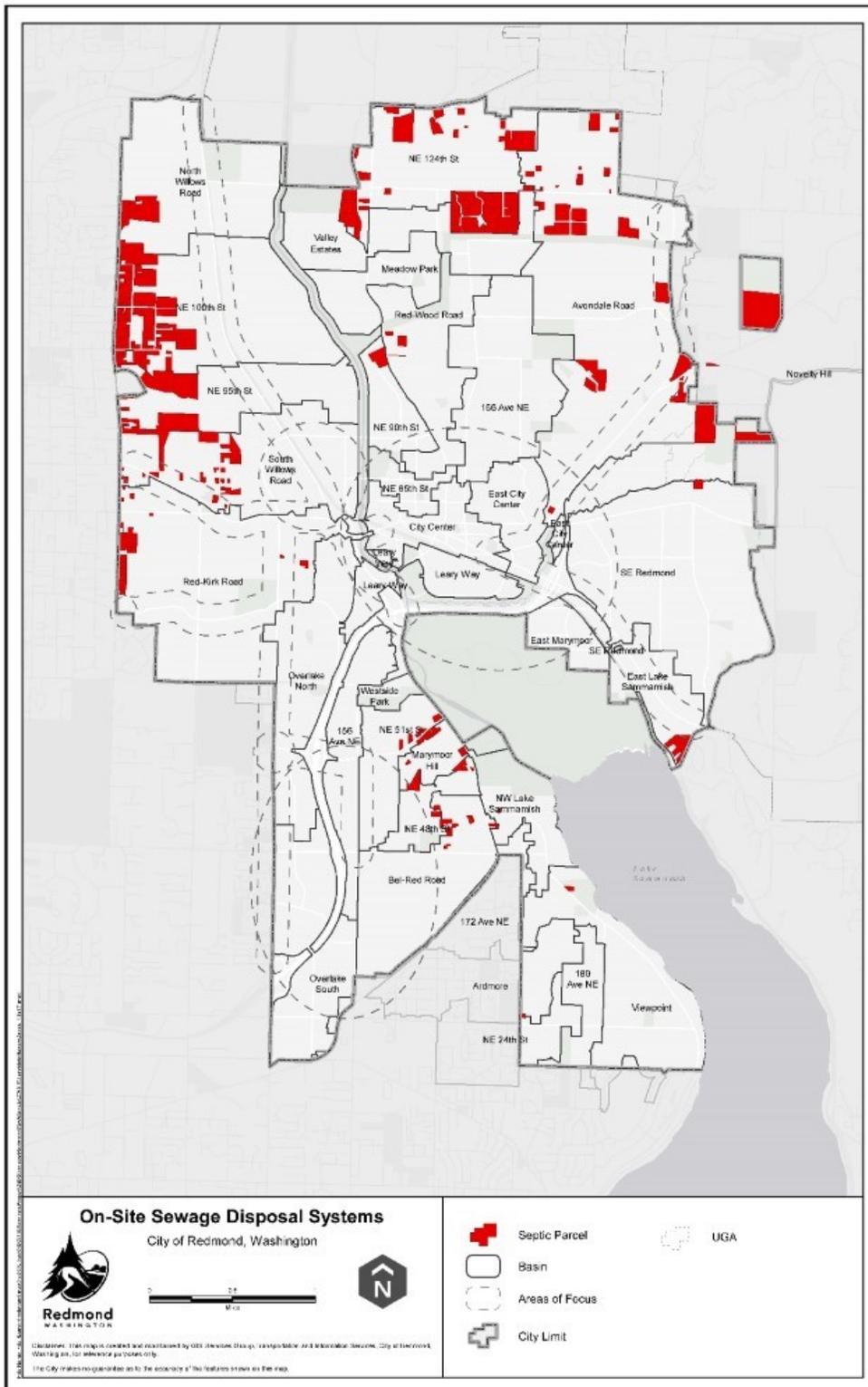
<sup>4</sup> City of Redmond General Sewer Plan Update, 2019.

FIGURE 5 - SEWER BASINS<sup>5</sup>



<sup>5</sup> City of Redmond General Sewer Plan Update, 2019

FIGURE 6 - ON-SITE SEWAGE DISPOSAL SYSTEMS<sup>6</sup>



<sup>6</sup> City of Redmond General Sewer Plan Update, 2019

## Regulations and Programs

Current discharge regulations contained in RMC [13.04](#) provide the basis and support for elements of a Source Control Program such as inspections and education. The primary purpose of Redmond's Source Control Program is to limit what materials enter the water supply through wastewater and solid waste pathways.

## Partnerships

King County Wastewater Treatment Division (WTD) operates and maintains several interceptors and trunks within Redmond's service area. City of Redmond wastewater facilities include joint-use pipes, which are owned with the City of Bellevue or Northeast Lake Sammamish Sewer and Water District.

King County Department of Health provides standards for the environmentally safe operation of septic systems. In addition, Redmond's sewer treatment services are provided by King County and depending on where a property is in Redmond, there is one of two facilities that will treat its sewage - either the Brightwater Treatment Plant which opened in 2011 or the South Treatment Plant in Renton. King County published a Comprehensive Solid Waste Management Plan in 2019, which guides aspects of regional solid waste management.

The Northeast Lake Sammamish Sewer and Water District is located at the southeastern corner of Redmond and primarily serves the northern portion of the Sammamish Plateau. Redmond and the Northeast Sammamish Sewer and Water District share pipeline facilities to convey the wastewater to King County WTD's system.

Redmond also partners with other partners via interlocal agreements (ILA) to provide utility sewer service.

- The City has partnered with the Woodinville Water District to provide water and sewer service to a portion of the City (ILA Contract 5359).
- The City has previously partnered with the City of Kirkland with two different ILAs to provide various utilities (ILA Contracts 8679 and 6465)

## Energy

Electricity and natural gas is provided in Redmond by Puget Sound Energy (PSE). PSE is regulated under various federal and state statutes. PSE operates in Redmond under a franchise agreement with the City that addresses the operation of PSE facilities in public right-of-way, among other topics.

## Partnerships

The City is represented on Puget Sound Energy (PSE) advisory groups for new utility line siting, such as the Stakeholder Advisory Group (SAG) for the proposed Sammamish-Juanita line. In the recent past the City developed a good working partnership with PSE with respect to green power and energy efficiency. The City has hosted multiple events at City Hall where PSE offered energy efficient lighting at deep discounts to Redmond citizens. In addition, the City coordinated with PSE to arrange small business energy retrofits in the Downtown and to hold a campaign for the residential Green Power Program. Also, the City executed an agreement with PSE for their Green Direct Program. Lastly, PSE continues to offer many rebates for energy efficiency programs. The City has

qualified for multiple PSE rebates over the years for our Energy Services Company (ESCO) projects with the State Department of Enterprise Services.

## Telecommunications

Telecommunication facilities can be located on private land, city land or in the public right-of-way. Examples of city-owned locations are city parks, on top of city water tanks. All requests for telecommunication facilities are reviewed by city plan reviewers as well as staff from relevant departments, such as Parks staff for facilities located at parks or, Public Works staff for facilities located on water tanks, reservoirs, or light poles in the right-of way. Redmond's three major cellular providers are AT&T, T-Mobile and Verizon.

## Regulations and Programs

To be compliant with FCC rule updates, in 2018 Redmond substantially revised RMC 1.214, RZC 21.56 (siting and design) and RZC 21.76 (review process) to accommodate small cell technology, enable their deployment within the city, and to address permit review timelines or "shot clocks", minor aesthetic standards, and clarify definitions. Then in 2019, Redmond amended local regulations again to comply with updated FCC rulings which imposed limitations on local municipalities regarding processing and review of all permits associated with the deployment of Fourth Generation (4G) and Fifth Generation (5G) mobile communication system infrastructure. 5G deployments are typically deployed as small cell wireless facilities that feature equipment which is smaller and more densely sited than past generations of equipment. Staff developed a streamlined review process to efficiently administer the review of telecommunication permit applications including additions of new design guidance.

## Partnerships

The Federal Communications Commission (FCC) develops and executes policies and procedures for the licensing of wireless services. This ranges from amateur radio to mobile broadband services.

A local telecommunication stakeholder group meets regularly to discuss how neighboring municipalities would change their codes to accommodate the recent FCC rulings.

## Trends Analysis

Keeping pace with land use changes is one of the salient trends facing utilities planning. Utility system planning has been particularly important in recent decades to prepare for the City's higher growth areas in the Downtown and Overlake neighborhoods, and will be important going forward in those areas and Marymoor Village, which will transform over time into a small urban village. At the same time, maintaining and replacing infrastructure will be an important trend over the life of the Comprehensive Plan as infrastructure ages. Investing in system replacement is exemplified in the City's capital investment strategy (CIS) approach, which includes on-going investment to replace or upgrade system components when routine maintenance is no longer prudent or when the integration of new technology provides more reliability, allows the City to achieve sustainability goals by becoming more green and efficient.

Since the last Comprehensive Plan update, several land use changes and improvements have occurred within the City's utility service areas, including:

- The North Redmond and North Rose Hill neighborhoods have experienced hundreds of new homes and more construction planned.
- The SE Redmond area has seen significant commercial growth with Costco, Fed Ex, and MV Transportation developing along 188th Ave. NE, and some multi-family growth along East Lake Sammamish Parkway.
- Redmond's downtown and Overlake areas have several mixed-use developments, including the hundreds of units built in Overlake Village, and many others such as Seritage, Esterra Park, Modera Overlake, and Capstone Avalon under construction.
- In late 2017 Microsoft began redeveloping its world headquarters which will add about 3 million additional square feet of office space. Relevant to utility planning, all new office buildings will reuse harvested rainwater in flush fixtures and low-flow systems, which is projected to save more than 5.8 million gallons annually.

## Policy Considerations

The following policy considerations are organized by four Redmond 2050 themes of equity and inclusion, sustainability, resilience, and being a technology forward community. They represent broad framing tools that can guide policy review for the various utility topics discussed above.

### Sustainability

- Climate change will affect how the City delivers utility services. We expect drier summers and more intense winter storms in the coming decades. These changes will directly impact regional drinking water supply and stormwater management practices. As stewards of the environment, the City also needs to be conscious of how the utilities' actions contribute to climate change.
- Growth allocations for the Redmond 2050 comprehensive plan update require the City to accommodate a significant increase in population and employment. Policies should address keeping pace with planned growth.
- Redmond strives to be a regional leader in all our endeavors and revising the language in UT-6, shown below, could focus City direction

**UT-6 Conduct City operations in a manner that leads by example through activities, such as recycling, water conservation, energy conservation and low-impact development processes whenever possible.**

### Technology Forward

- Technology is changing. The City's asset management program, use of real time systems management tools, adoption of in the field data capture and entry systems, and other innovative technologies offer us new ways to gather information and optimize management of utility systems. Advances in technology could also allow the utilities to use data to respond to

problems more quickly and effectively. UT-3 addresses the use of technology in utilities and is shown below.

**UT-3 Encourage the use of innovative technologies to:**

- Provide and maintain utility services;
- Reduce the negative impacts of additional utility service demands;
- Improve the existing service; and
- Reduce, where appropriate, the overall demand on utility systems.

## Resiliency

- The City is becoming denser and more urban. As Redmond continues to grow, the Utilities will need to adapt design standards and operations to land development patterns.
- The City's infrastructure is aging. Policies should address timely and systematic maintenance and replacement activities and financing across all utility systems.
- Education, employment, and emergency communications all continue to rely more and more upon telecommunications. Effective telecommunications reduce the transaction cost in different sectors of the economy and allow for independent economic agency. A resilient telecommunications network is essential to economic vitality and equitable access to information, goods and services, and opportunities for social connection. Policy UT-83 addresses this topic as shown below.

**UT-83 Promote a wide range of telecommunications options. This can include:**

- Making City facilities available for placement of antennas,
- Treating attached cellular base antennas as other building or rooftop appurtenances, and
- Support website communication between the City and its residents and customers.

## Equity and Inclusion

Policies UT-7 and UT-8 address how utilities are financed and thus have a strong nexus with the theme of equity and inclusion; they are shown below. As part of this update, the City should also be mindful of ensuring a fair distribution of utility service in the community.

**UT-7 Require development to pay for or construct the growth-related portion of infrastructure needs.**

**UT-8 Create equity in financing of capital facilities among city residents and those outside the city by reflecting the full cost of providing service outside city limits; for example, in the Novelty Hill service area.**

## Existing Conditions

# Natural Environment

## Introduction

The Redmond Comprehensive Plan's Natural Environment Element includes policies related to **sustainability and environmental stewardship, green infrastructure, critical areas<sup>1</sup>, tree preservation and landscape enhancement, climate change, air quality, noise, and light pollution**. These topics may be added to or supplemented by updated regulations and regional policies. The themes of the Redmond 2050 update are **resiliency, equity & inclusion, sustainability, and technology forward** ("smart city"); community discussions around themes will impact the contents of this chapter for the 2050 Plan.

## Federal, State, & Regional Planning Context

### Federal & State Regulations

Many environmental policies and regulations are set at the federal level, including but not limited to through the National Environmental Policy Act (NEPA), Clean Air Act, and Clean Water Act. For example, the City's National Pollutant Discharge Elimination System (NPDES) permit requires numerous actions to reduce the amount of polluted stormwater runoff flowing into our lake, river, groundwater, and streams (in compliance with the Clean Water Act).

At the State level, the Growth Management Act (GMA), the State Environmental Policy Act (SEPA), Shoreline Master Program, and many more regulations impact City programs, regulations, and project review processes. The GMA has requirements for environmental planning in relation to land use and comprehensive plans, including the classification and designation of natural resource lands and critical areas and the use of Best Available Science in decision-making processes.

## Fast Facts

- The City hosts Green Redmond Day, where 11,000+ volunteers have cumulatively contributed over 33,000 hours of service. This program has resulted in almost 12,00 trees and 23,550 shrubs and small plants planted.
- Between 2013 & 2018, volunteer hours for stewardship efforts increased 37%.
- Redmond met the 2020 Air Quality target of 20% below 2008 levels.
- Redmond has met 100% of water quality standards
- eCO<sub>2</sub> emissions have declined 49% since 2008.
- The City dedicates 7% of the budget on environmental programs.

<sup>1</sup> The Comprehensive Plan critical areas policies address geologically hazardous areas, Critical Aquifer Recharge Areas (CARAs), frequently flooded areas, wetlands, water quality and basin planning, and Fish and Wildlife Habitat Conservation Areas (FWHCAs).

Counties and cities must include the "best available science" when developing policies and development regulations to protect the functions and values of critical areas and must give "special consideration" to conservation or protection measures necessary to preserve or enhance anadromous fisheries. RCW 36.70A.172(1).<sup>2</sup>

SEPA requires that public agencies identify environmental impacts likely to result from plans and projects, and reviews are conducted at all levels, as appropriate for the project. An Environmental Impact Statement will be prepared for the Redmond 2050 project components.

## Puget Sound Regional Council – VISION 2050

The Puget Sound Regional Council (PSRC), the regional planning authority for our region, has adopted [VISION 2050](#) -- the long-range growth management, environmental, economic and transportation strategy for the central Puget Sound region. Vision 2050 includes both general environmental policies and a chapter with policies specific to climate change<sup>3</sup>.

***Goal:** The region cares for the natural environment by protecting and restoring natural systems, conserving habitat, improving water quality, and reducing air pollutants. The health of all residents and the economy is connected to the health of the environment. Planning at all levels considers the impacts of land use, development, and transportation on the ecosystem. (22 policies, 4 actions]*

**En-Action-4 | Local Open Space Planning:** In the next periodic update to the comprehensive plan, counties and cities will create goals and policies that address local open space conservation and access needs as identified in the Regional Open Space Conservation Plan, prioritizing areas with higher racial and social inequities and rural and resource land facing development pressure. Counties and cities should work together to develop a long-term funding strategy and action plan to accelerate open space protection and enhancement.

***Goal:** The region substantially reduces emissions of greenhouse gases that contribute to climate change in accordance with the goals of the Puget Sound Clean Air Agency (50% below 1990 levels by 2030 and 80% below 1990 levels by 2050) and prepares for climate change impacts. (12 policies, 4 actions)*

**CC-Action-3 | Policies and Actions to Address Climate Change:** Cities and counties will incorporate emissions reduction policies and actions that contribute meaningfully toward regional greenhouse gas emission goals, along with equitable climate resiliency measures, in their comprehensive planning. Strategies include land uses that reduce vehicle miles traveled and promote transit, biking, and walking consistent with the Regional Growth Strategy, developing and implementing climate friendly building codes, investments in multimodal transportation choices, and steps to encourage a transition to cleaner transportation and energy systems.

**CC-Action-4 | Resilience:** Cities and counties will update land use plans for climate adaptation and resilience. Critical areas will be updated based on climate impacts from sea level rise, flooding, wildfire hazards, urban heat, and other hazards. The comprehensive plans will identify mitigation measures addressing these hazards including multimodal emergency and evacuation routes and prioritizing mitigation of climate impacts on highly impacted communities and vulnerable populations.

<sup>2</sup> The inclusion of the best available science in the development of critical areas policies and regulations is especially important to salmon recovery efforts, and to other decision-making affecting threatened or endangered species. [WAC 365-195-900]

<sup>3</sup> PSRC published a white paper in 2019 on climate change that summarizes state, regional, and local climate change efforts and goals. <https://www.psrc.org/sites/default/files/vision2050climatepaper.pdf>

## Other Regional & Countywide Policies & Plans

- PSRC coordinates the creation of the multi-county planning policies, which King County uses to create countywide planning policies (CPPs) that all communities in King County, including Redmond, must comply with. [The current CPPs](#) include 21 policies for environmental sustainability, earth and habitat, flood hazards, water resources, air quality, and climate change. The CPPs are being updated to comply with Vision 2050.
- The Regional Open Space Conservation Plan was adopted in 2018. The Plan maps the regional open space network and identifies priority actions needed to increase access and sustain open spaces for the long term.
- Redmond is a founding member of the King County-Cities Climate Collaborative (K4C), a voluntary but formal partnership between cities and King County on climate change outreach, coordination, solutions, and funding.

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### CPP Overarching Goal for Environment:

The quality of the natural environment in King County is restored and protected for future generations

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## Local Planning & Regulatory Context

### Redmond Policies & Regulations

The City of Redmond has numerous environmental regulations, policies, and programs, as described in the Trends & Best Practices report prepared by BERK Consulting and the 2020 Environmental Sustainability Action Plan.

City of Redmond plans that incorporate goals, policies, and actions related to natural resource management and sustainability include:

- [Comprehensive Plan](#)
- [Community Strategic Plan](#)<sup>4</sup>
- [Climate Action Plan](#)
- [Comprehensive Emergency Management Plan](#)
- [Environmental Sustainability Action Plan](#)
- [Facilities Strategic Management Plan](#)
- [Flood Hazard Management Plan](#)
- Overlake Village Stormwater & Park Facilities Plan
- [PARRC Plan](#)
- [Regional Stormwater Facilities Plan](#)
- [Stormwater Management Program \(SWMP\) Plan](#)
- [Temporary Construction Dewatering Operating Policy](#)
- [Transportation Master Plan](#)
- [Tree Canopy Strategic Plan](#)
- Utilities Strategic Plan
- Watershed Management Plan

<sup>4</sup> The 2019 Community Strategic Plan included a number of objectives, strategies, measures, and actions related to environmental sustainability. The programmatic vision for this work is: *A Redmond that creates a healthy, sustainable environment for all generations and conserves our natural resources, affords a high quality of life, and draws from scientific evidence-based data.*

Regulations adopted in the Redmond Municipal Code (RMC) and Redmond Zoning Code (RZC)<sup>5</sup> include but are not limited to:

- [RZC 21.64 Critical Areas Regulations](#)
- [RZC Appendix 1 Critical Areas Reporting Requirements](#)
- [RZC 21.67 Green Building Incentive Program](#)
- [RZC 21.68 Shoreline Master Program](#)
- [RZC 21.72 Tree Protection](#)<sup>6</sup>
- [RMC 6.12 Noxious Weed Control & Tree Regulations](#)
- [RMC 6.36 Noise Standards](#)
- [RMC 13.07 Wellhead Protection](#)
- [RMC 13.25 Temporary Construction Dewatering](#)
- [RMC 15.04 Flood Control](#)
- [RMC 15.24 Clearing, Grading, and Stormwater Management](#)

The 2030 Redmond Comprehensive Plan adopted the following **sustainability principles**<sup>7</sup>:

- Having a shared community identity that is special and unique, based on Redmond's beautiful natural environment, its vibrant employment areas and diverse community of residents;
- Having equitable access to goods, services and employment;
- Having housing choices that are accessible to residents with various incomes, ages and abilities;
- Valuing environmental quality and supporting choices that minimize impacts to the environment;
- Recognizing the importance of community awareness, education and engagement; and
- Having a strong local economy.

## 2030 Comprehensive Plan Environmental Framework Policies

- Protect, enhance and restore habitat and natural ecosystems to levels of function that provide resilience and adaptability, prevent natural hazards, and support biological imperatives for clean water and air.
- Protect and restore the natural resources and ecological functions of shorelines, maintain and enhance physical and visual public access, and give preference to uses that are unique or dependent on shoreline locations.
- Improve the response and resiliency of the City to climate change impacts in built, natural and social environments with an emphasis on public health.
- Support Redmond as an urban community that values clean air and water, views of stars at night, and quiet neighborhoods.
- Achieve reductions and mitigate impacts community-wide from greenhouse gas emissions and criteria air pollutants.
- Additionally, promote efficient energy performance and use of energy sources that move beyond fossil fuels.
- Emphasize Redmond's role as an environmental steward...

<sup>5</sup> Many of Redmond's environmental regulations are found in [Article IV of the Redmond Zoning Code](#).

<sup>6</sup> The City is currently drafting updates to the Tree Regulations.

<sup>7</sup> 2030 Redmond Comprehensive Plan, [Introduction](#); page 1-1.

The [Natural Environment Element](#) includes 142 policies for environmental stewardship, critical areas, tree preservation and landscape enhancement, climate change, air quality, noise and light pollution, with an additional 87 polices specifically related to [Shorelines](#).<sup>8</sup>

## Redmond Partnerships

In many areas the City has direct control of outcomes, but in environmental issues and natural resource management issues cross boundaries more often than not, so partnerships are critical to both setting and meeting natural resource related goals and targets. Some of Redmond's key partnerships include:

- [King County-City Climate Collaborative](#) (K4C)
- Metro Connects Plan
- Comprehensive Solid Waste Management Plan
- Cascade Water Alliance
- WRIA8 Chinook Conservation Plan

## Current Conditions

### Inventory of Existing Conditions, Actions, and Programs

BERK Consulting has prepared an [Environmental & Natural Resources Existing Conditions report](#) for environmental topics including earth, air, water, air quality / greenhouse gases. In addition, the [2020 Environmental Sustainability Action Plan](#) is also important and contains a significant amount of information, with an implementation matrix (Appendix A) and a sustainability inventory as Appendix B. Some of the highlights of those reports are included below, but a large amount of additional information is available on these topics and readers are encouraged to reference those documents.

### Level of Service Analysis: Targets & Attainment

For environmental topics, targets are established by federal, state, regional, and local regulations, standards, and policies. Redmond's environmental sustainability goals and targets (shown in Figure 1) were developed through an iterative process that included consideration of regional and peer city targets, existing City planning documents, community and City staff preferences and perceptions, and analysis of what is achievable through the identified strategies and actions of the plan.<sup>9</sup>

<sup>8</sup> Additional environmental and sustainability policies can be found in the Parks, Neighborhoods, Urban Centers, Capital Facilities, Utilities Elements, and Economic Vitality, for a total of over 300 environmental and/or sustainability related policies. One of the goals of the Redmond 2050 update is to consolidate, simplify, and remove duplication. The recent adoption of the Environmental Sustainability Action Plan will facilitate this goal by allowing us to keep items in the Comprehensive Plan at a high level and those items that are required to be there, with more detailed policies and actions will be in the Sustainability Action Plan and implementing regulations.

<sup>9</sup> For supporting source/rationale for targets, see the Environmental Sustainability Action Plan, page 28.

FOCUS AREA & GOAL	METRIC	TARGET
 <b>Transportation &amp; Land Use:</b> Reduce transportation emissions and enhance community mobility.	<b>Per-capita passenger vehicle miles traveled (VMT)</b>	30% reduction by 2035 50% reduction by 2050
	<b>Electric vehicle use (% of VMT by FVs)</b>	100% light duty by 2050 60% medium duty by 2050 40% heavy duty by 2050
 <b>Buildings &amp; Energy:</b> Increase sustainable buildings practices, renewable energy use, energy efficiency, and energy resiliency.	<b>Community energy consumption (MMBTU)</b>	25% reduction by 2030 45% reduction by 2050
	<b>Fossil fuel consumption (MMBTU)</b>	20% reduction by 2030 80% reduction by 2050
	<b>Electricity fuel mix</b>	100% renewable electricity by 2050
 <b>Materials Management &amp; Waste:</b> Move towards more sustainable consumption and zero waste.	<b>Community waste diversion rate (% total waste diverted from landfill)</b>	70% waste diversion rate by 2030 Zero waste of resources (80%) by 2050**
 <b>Natural Systems:</b> Enhance green space, tree canopy, habitat quality, and natural drainage systems.	<b>Tree canopy cover (%)</b>	40% by 2049
	<b>BIBI index of streams</b>	60 by 2060*
	<b>Surface water quality index (# out of 100)</b>	80 by 2060
	<b>Accessible habitat and wetlands (acres)</b>	2,600 by 2050
 <b>Water Management:</b> Protect and conserve water resources, including water quality and quantity.	<b>Potable water consumption (per capita gallons per day)</b>	TBD by Water Reduction Strategy
	<b>Sanitary sewer inflow/infiltration (gallons per acre per day)</b>	1,100 by 2050
	<b>Stormwater retrofits for flow (total acres)</b>	5,646 by 2050
	<b>Stormwater retrofit for quality (total acres)</b>	7,463 by 2050
 <b>Climate Change:</b> Reduce GHG emissions and enhance communitywide resilience to climate impacts.	<b>Community GHG emissions (MTCO<sub>2</sub>e)</b>	50% reduction by 2030 80% reduction by 2050*** <i>Carbon neutrality by 2050 (aspirational)</i>
	<b>Municipal GHG emissions (MTCO<sub>2</sub>e)</b>	50% reduction by 2030 Carbon neutral by 2050

FIGURE 1 - REDMOND ENVIRONMENTAL SUSTAINABILITY GOALS & TARGETS.

### Earth

Community planning and building codes exist for erosion hazard areas, landslide hazard areas, and seismic hazard areas, all of which exist in some format within Redmond but vary by location. Table 1 summarizes hazards by area of focus.

TABLE 1 - GEOLOGIC HAZARDS SUMMARY

Approximate Area	Erosion Hazards	Landslide Hazards	Seismic Hazards
Downtown	Minimal	Minimal	Significant
Overlake Village	Moderate	Moderate	Minimal
SE Redmond/Marymoor	Moderate	Moderate	Significant
Arterial Corridors	Minimal	Significant (varies by corridor)	Significant (varies by corridor)

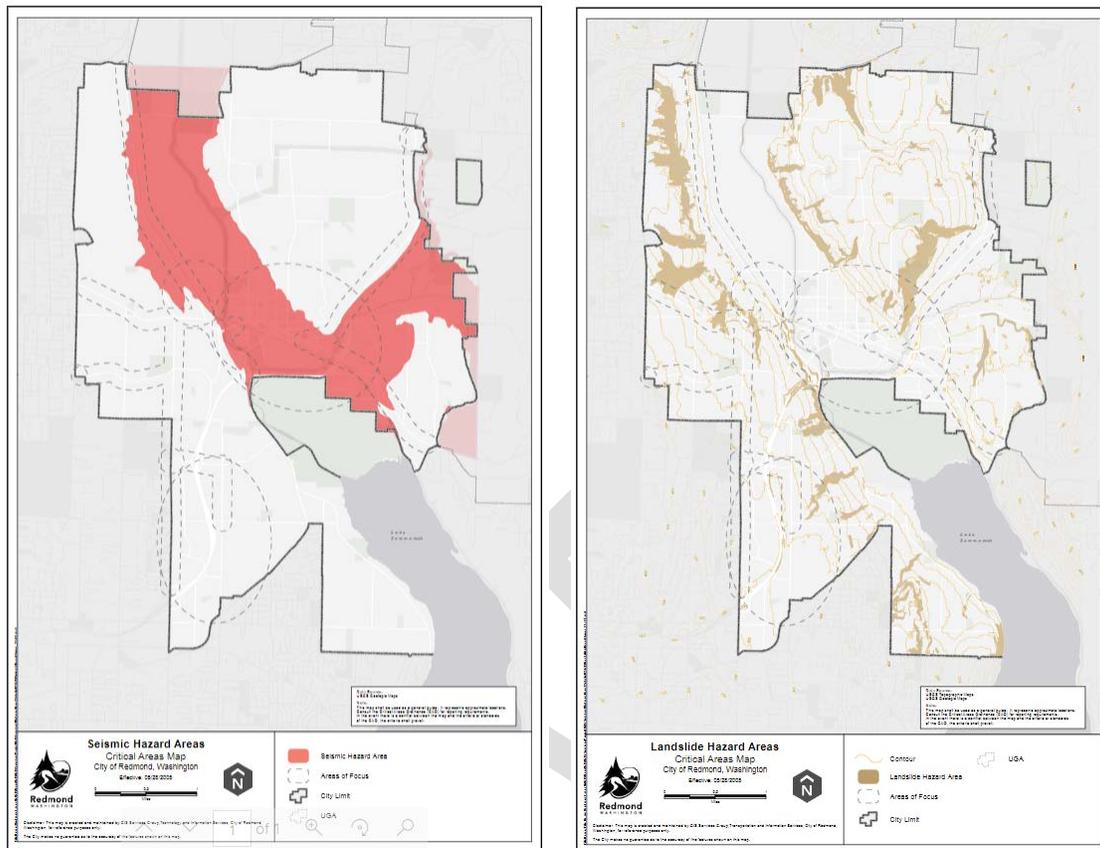


FIGURE 2 - REDMOND SEISMIC AND LANDSLIDE HAZARD AREA MAPS.

## Water

The City is focused on protecting and conserving water resources, including both water quality and quantity. Redmond has many valuable water resources that enhance and protect the City, including rivers, lakes, streams, and wetlands. Many are located in or near areas that are developed and growing.

- There are 19 watersheds that lie at least partially within the city limits.
- Wetland, stream, and buffer enhancement opportunities are present throughout Redmond.
- Downtown area and SE Redmond are located within a Critical Aquifer Recharge Area (CARA).
- A water table is close to the surface below Downtown and Marymoor Village, in several places only a few feet below ground. This limits the number of below-ground stories a building may have (and thus limits underground parking options).
- Redmond/Bellevue joint use waterlines along Bel-Red Road & 148th Ave NE need improvements to serve Overlake Village South area.
- Redmond utilizes a combination of traditional, low-impact development techniques, and regional stormwater management facilities.
- Regional stormwater facilities are in Downtown and Overlake; more are planned for Overlake.

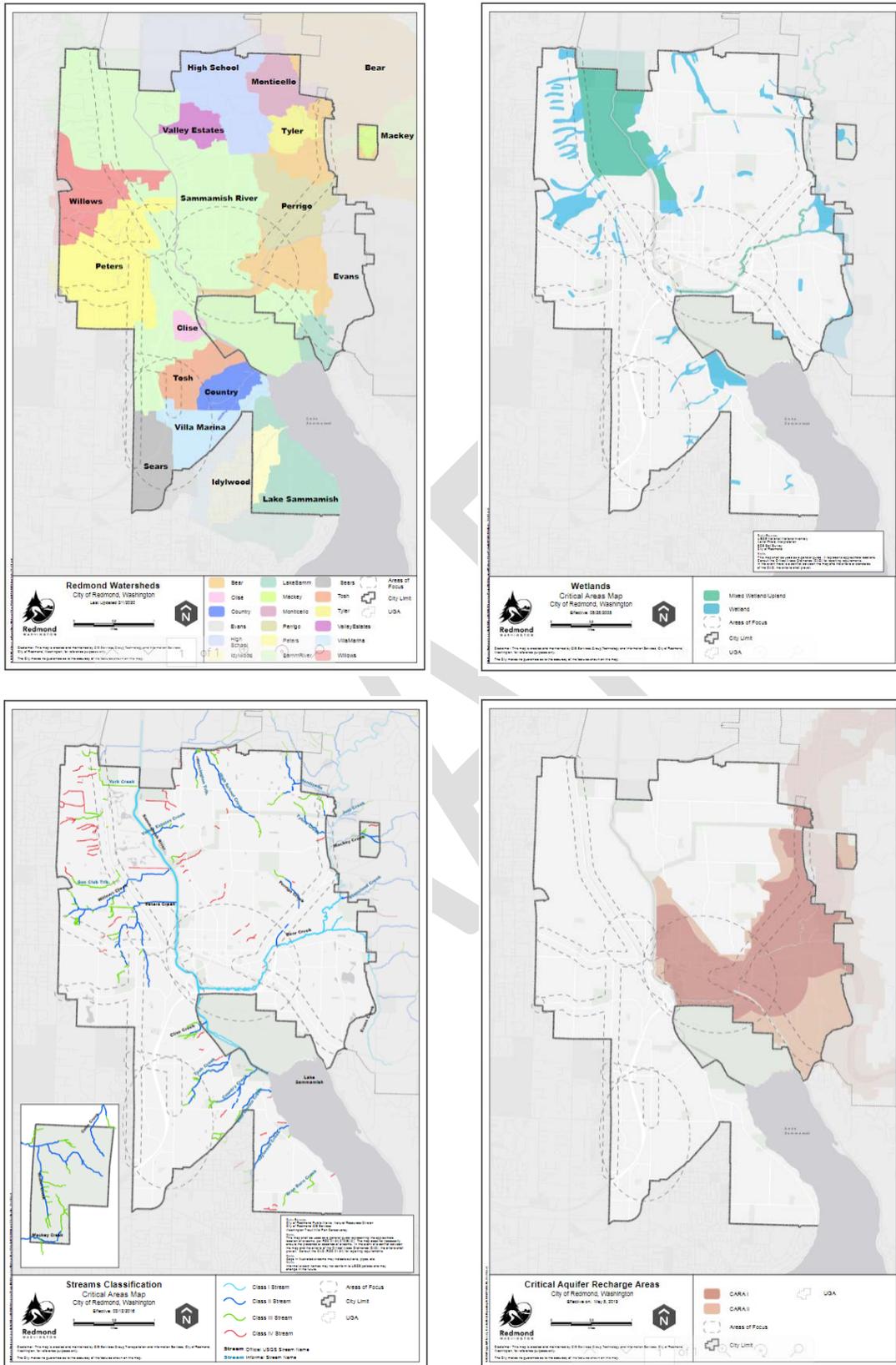


FIGURE 3 - REDMOND WATER RESOURCE MAPS.

## Air

The City air quality and greenhouse gas goals and targets were last updated in 2015<sup>10</sup>, with a goal of achieving 20% below 2008 levels by 2020 and 80% below 2008 levels by 2050.<sup>11</sup> The City is on target with those goals (Figure 2) and is below the Federal Air Quality standards for particulate pollution (Figure 3).

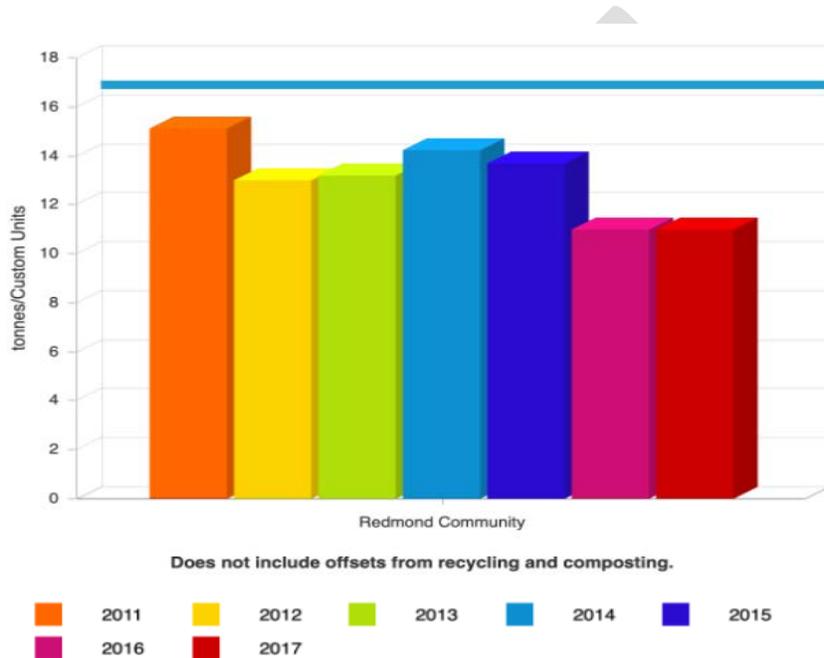


FIGURE 4 - REDMOND GREENHOUSE GAS EMISSIONS PER CAPITA.

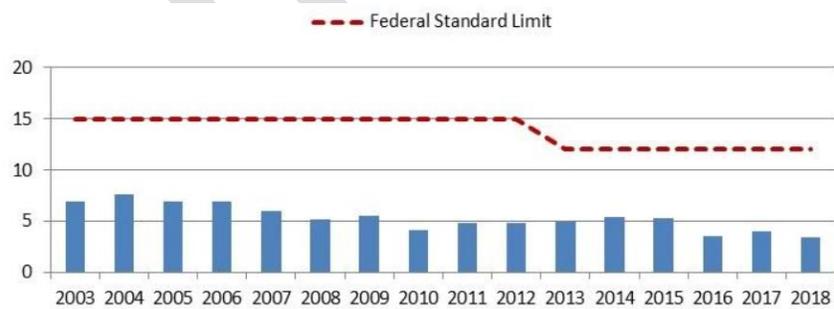


FIGURE 5 - REDMOND AIR QUALITY BY AVERAGE PARTICULATE POLLUTION CONCENTRATION.

<sup>10</sup> The Climate Action Implementation Plan was adopted in 2014, and included an initial greenhouse gas inventory to benchmark the City’s emissions with ongoing monitoring based on electricity and natural gas consumption for city buildings, facilities, water and sewer utilities, streetlights and traffic signals, vehicle fleet, and employee commuting travel. The Plan was followed by the adoption of Resolution 1436 in 2015 that set targets for emissions, relative to 2008 levels.

<sup>11</sup> The City relies on data from Puget Sound Energy, Cascade Water Alliance, Waste Management, WSDOT, and various City departments, among others.

## Trends Analysis

- BERK Consulting has prepared a [Trends & Best Practices report](#) that reviews the environmental topics that are anticipated to be included in the EIS (to be determined by scoping and agency comments). For each environmental topic anticipated, it provides:
  - performance metrics,
  - methods of measuring impacts,
  - linkages to Redmond priorities,
  - thresholds of significance to consider in EIS, and
  - best practices for alternatives and mitigation measures.
- The [BERK Environmental & Natural Resources Existing Conditions report](#) includes an extensive review of existing conditions and trends.
- The [2020 Environmental Sustainability Action Plan](#) includes an **extensive** review of trends and potential actions that can be taken.

## Policy Considerations

Redmond 2050 has four themes: sustainability, equity and inclusion, resiliency, and being a technology forward City (“smart city”). The policy considerations for the Natural Resources Element described below align most closely with the sustainability and resiliency themes of Redmond 2050.



**Effective stewardship of Redmond’s natural impacts the quality of life and community vitality of Redmond residents, employees, businesses and visitors. Fostering Redmond’s green, environmentally-conscious character increases the City’s desirability as a community.**

- BERK Consulting is preparing a Best Available Science review and report to outline recent changes to scientific best practices for managing natural resources and mitigation measures. The report may result in recommendations for policy and regulatory updates or new methods to be considered for avoiding or mitigating impacts of growth.
- Erosion and landslide hazards are likely to increase with climate change and subsequent effects on local soil moisture, runoff, and streamflow conditions. Mitigation of these hazards includes increased monitoring of streamflow patterns to identify specific areas of concern, restoration of natural storage functions in the watershed to reduce peak flows resulting from past construction and land use changes, and adaptation to changing plant communities by planting drought tolerant and warmer weather species.
- Wetland, stream, and buffer enhancement opportunities are present throughout the City of Redmond. The most valuable enhancement areas should be considered at a watershed-scale and include undeveloped areas adjacent to Bear Creek and Evans Creek. Restoration

activities, especially those within and adjacent to the Keller Farm Mitigation Bank, could mitigate for potential development impacts to critical areas.

- The City is currently on track with its greenhouse gas emissions and air quality targets for City operations. Additional strategies will need to be pursued, particularly related to transportation, to achieve the City's long-term aspirational 2050 target.
- [Vision 2050](#) incorporated new and updated polices related to equity, environmental stewardship, air quality, open space conservation, watershed planning, tree canopy, and Puget Sound recovery. It also created a separate chapter for a focus on climate change impacts. These updates will need to be reviewed to see how they will impact the Redmond Comprehensive Plan.

DRAFT