

RPem → Am #1
Adopted

18427

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11/22/16

Omnibus KCCP Ordinance
Changes

cmj

Sponsor: Dembowski

Proposed No.: 2016-0155

1 **AMENDMENT TO PROPOSED ORDINANCE 2016-0155, VERSION 2**

2 On page 14, line 300, strike "except as permitted in subsection B.5, 10. and 12. of this
3 section", and insert "except as permitted in subsection B.~~((5, 10.))~~ 9. and ~~((12.))~~ 11. of
4 this section"

5

6 On page 17, line 368, after "before", delete "to", and insert "~~((to))~~"

7

8 On page 17, line 373, delete "RP-307", and insert "~~((RP-307))~~ I-207"

9

10 On page 17, after line 377, insert:

11 "SECTION 8. Ordinance 4461, Section 10, amended, and K.C.C. 20.22.150 are
12 hereby amended to read as follows:

13 When the examiner issues a recommendation regarding an application for a zone
14 reclassification of property, the recommendation shall include findings on whether the
15 application meets both of the following:

16 A. The proposed rezone is consistent with the King County Comprehensive Plan;

17 and

18 B.1. The property is potentially zoned for the reclassification being requested;

51

19 2. An adopted subarea plan, subarea study or area zoning specifies that the
20 property shall be subsequently considered through an individual reclassification
21 application; or

22 3. The requested reclassification is based on changed conditions."
23

24 Beginning on page 17, line 378, strike everything through page 19, line 402,
25 Renumber the remaining sections consecutively and correct any internal references
26 accordingly.
27

28 In Attachment A, King County Comprehensive Plan - 2016 Update, dated September 20,
29 2016, engross the changes from any adopted amendments, correct any scrivener's errors,
30 update the table of contents as necessary and delete the line numbers.
31

32 In Attachment B, Appendix - Land Use and Zoning Amendments, dated September 1,
33 2016, engross the changes from any adopted amendments and correct any scrivener's
34 errors.
35

36 Delete Attachment C, Technical Appendix A – Capital Facilities, dated September 1,
37 2016, and insert Attachment C, Technical Appendix A – Capital Facilities, dated
38 November 21, 2016, engross the changes from any adopted amendments, update the table
39 of contents as necessary and correct any scrivener's errors.
40

41 Delete Attachment D, Technical Appendix B - Housing, dated September 1, 2016, and
42 insert Attachment D, Technical Appendix B - Housing, dated November 21, 2016,

43 engross the changes from any adopted amendments, update the table of contents as
44 necessary, and correct any scrivener's errors.

45

46 Delete Attachment E, Technical Appendix C - Transportation, dated September 1, 2016,
47 and insert Attachment E, Technical Appendix C - Transportation, dated November 21,
48 2016, engross the changes from any adopted amendments, update the table of contents as
49 necessary and correct any scrivener's errors.

50

51 Delete Attachment F, Technical Appendix C1 – 2016 Transportation Needs Report, dated
52 September 1, 2016, and insert Attachment F, Technical Appendix C1 – 2016
53 Transportation Needs Report, dated November 21, 2016, engross the changes from any
54 adopted amendments, update the table of contents as necessary and correct any
55 scrivener's errors.

56

57 Delete Attachment G, Technical Appendix C2 – Regional Trail Needs Report, dated
58 September 1, 2016, and insert Attachment G, Technical Appendix C2 – Regional Trail
59 Needs Report, dated November 21, 2016, engross the changes from any adopted
60 amendments, update the table of contents as necessary and correct any scrivener's errors.

61

62 Delete Attachment H, Technical Appendix D – Growth Targets and the Urban Growth
63 Area, dated September 1, 2016, and insert Attachment H, Technical Appendix D –
64 Growth Targets and the Urban Growth Area, dated November 21, 2016, engross the

65 changes from any adopted amendments, update the table of contents as necessary and
66 correct any scrivener's errors.

67

68 Delete Attachment I, Technical Appendix R – Public Outreach for the Development of
69 the 2016 Comprehensive Plan, dated September 1, 2016, and insert Technical Appendix
70 R – Public Outreach for the Development of the 2016 Comprehensive Plan, dated
71 November 21, 2016, engross the changes from any adopted amendments and correct any
72 scrivener's errors.

73

74 Delete Attachment J, Skyway-West Hill Action Plan, dated March 1, 2016.

75

76 **EFFECT: This amendment:**

- 77
- **Makes technical corrections to K.C.C. 20.18.030.**

78

 - **Adds a reference to subarea studies in K.C.C. 20.22.150, consistent with**

79

 - **related changes in the 2016 Comprehensive Plan.**

80

 - **Removes the decodification and repeal of K.C.C. 20.54.**

81

 - **Makes technical corrections to the technical appendices.**

82

 - **Removes Skyway-West Hill Action Plan (SWAP).**

**Attachment C to Proposed Ordinance 2016-0155
Technical Appendix A to 2016 Comprehensive Plan**



King County

2016

King County Comprehensive Plan Update

TECHNICAL APPENDIX A

CAPITAL FACILITIES

((September 1)) November 22, 2016

Technical Appendix A

Capital Facilities

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I. Introduction

The capital facilities element of the King County Comprehensive Plan is comprised of two parts-
-the Facilities and Services section contained in Chapter ~~((8) of the Plan))~~ 9: Services, Facilities and Utilities and Technical Appendix A.

Chapter 9: Services, Facilities and Utilities~~((The Facilities and Services section of the plan))~~ identifies the key issues regarding planning for and financing of capital facilities to serve the needs of existing and new residents. Included are discussions and specific policies directing how King County should meet its capital facilities responsibilities.

This Technical Appendix to Chapter 9: Services, Facilities and Utilities~~((the Facilities and Services section))~~ consists of a review of the current status of planning and financing in King County for a broad range of facilities and services. This~~((e range of facilities and services))~~ includes the “full range” identified in the state Growth Management Act. The facilities are organized into two sections, those owned by King County and those owned by other entities.

II. State Requirements

The development of this Technical Appendix was guided by an integrated set of state and local policies and plans. Chapter 9: Services, Facilities and Utilities ~~((The Facilities and Services section of the Comprehensive Plan, which includes))~~ and this Technical Appendix ~~((,))~~ implement ~~((s))~~ the requirements of the directives listed below. These requirements are met in the documents referenced in Section III.

A. Growth Management Act Goals and Requirements

The Growth Management Act ~~((f))~~(GMA)(RCW 36.70A.020)~~((j))~~, states as a goal: "Ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards."

The GMA requires that comprehensive plans include a capital facilities plan element consisting of:

- An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities;
- A forecast of the future needs for such capital facilities;
- The proposed locations and capacities of expanded or new capital facilities;
- At least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes; and
- A requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element are coordinated and consistent.

B. GMA Definitions

The GMA provides the following definitions to be considered in the capital facilities element of comprehensive plans:

- Public Facilities, including streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems,

solid waste transfer and disposal facilities, parks and recreational facilities, and schools.

- Public Services, including fire protection and suppression, law enforcement, public health, education, recreation, environmental protection, and other governmental services.
- Urban Governmental Services, including those governmental services historically and typically delivered by cities, which include storm and sanitary sewer systems, domestic water systems, street cleaning services, fire and police protection services, public transit services, and other public utilities associated with urban areas and normally not associated with non-urban areas.

C. State Department of ((Community Development)) Commerce **Procedural Criteria**

The Procedural Criteria for Adopting Comprehensive Plans and Development Regulations, 1992, clarify the above-described requirements by saying that the capital facilities element should serve as a check on the practicality of achieving other elements of the plan. The following steps are recommended in preparing the capital facilities element:

- Inventory of existing capital facilities showing locations and capacities, including an inventory of the extent to which existing facilities possess presently unused capacity. Capital facilities involved should include water systems, sanitary systems, storm-water facilities, solid waste transfer and disposal facilities, schools, parks and recreational facilities, police and fire protection facilities.
- The selection of levels of service or planning assumptions for the various facilities to apply during the planning period (twenty years or more) and which reflect community goals.
- A forecast of the future needs for such capital facilities based on the levels of service or planning assumptions selected and consistent with the growth, densities and distribution of growth anticipated in the land use element.
- The creation of a six-year capital facilities plan for financing capital facilities needed within that time frame. Projected funding capacities are to be evaluated, followed by the identification of sources of public or private funds for which there is reasonable assurance of availability. The six-year plan should be updated at least biennially so that financial planning remains sufficiently ahead of the present for concurrency to be evaluated.

D. King County Countywide Planning Policies

The GMA (RCW 36.70A.210) requires counties and the cities to coordinate developing and adopting a set of mutually agreed upon planning policies to guide the development of local comprehensive plans. In response to this requirement, elected officials representing the county and the cities and towns of King County joined together to cooperatively develop and adopt the King County Countywide Planning Policies.

The Countywide Planning Policies provide a framework for developing the comprehensive plans in King County. The framework provides a mechanism for achieving consistency among comprehensive plans. Jurisdictions must develop comprehensive plans according to policies addressing capital facilities issues, including siting of facilities and the timing and phasing of land development in concert with facilities and services.

The Countywide Planning Policies adopted by the King County Council and ratified by the cities call for jurisdictions to define the full range of urban services and how they plan to provide them (PF-1). Jurisdictions must identify the services needed to achieve adopted service levels.

Timeliness for constructing needed services shall be identified. The countywide development pattern must include sufficient supply of quality places for housing, employment, education, recreation, ~~and~~ open space and the provision of community and social services ~~(FW-2)~~.

III. Range of Facilities and Services

A. Facilities & Services Provided by King County

1. General Government

The Capital Improvement Budget is divided into three strategic plan goal categories.

- The Economic Growth and Built Environment category includes CIP projects for the King County International Airport, road services, transit, park facilities and housing programs.
- The Environmental Sustainability category includes CIP projects for wastewater treatment, solid waste, flood and surface water, and open space land acquisition.
- The General Government category includes capital improvements for the King County Courthouse and Administration Building complex and for all other county facilities, technology, Harborview Medical Center and facility leases.

For more information please see the current adopted version of King County's Real Property Asset Management Plan (~~((RPAM))~~) RAMP. The ~~((RPAM))~~ RAMP contains a thorough inventory of existing general government facilities and the conditions of the buildings owned by King County.

2. Parks, Recreation & Open Space

A current inventory of King County Park Sites and Facilities is on file in the Department of Natural Resources and Parks. For more information please see the current adopted King County ~~((Park, Recreation and))~~ Open Space Plan and the Six Year Parks Capital Improvement Program found in the King County Budget. ~~((Other initiatives related to Open Space and natural resources include the Strategic Climate Action Plan and the Local Food Initiative.))~~

3. Surface Water Management

The inventory of existing facilities is on file at the King County Department of Natural Resources and Park's Water and Land Resources (WLR) Division. For additional ~~((--))~~ information on future planned facilities and improvements to existing facilities, please see the current adopted version

of the Capital Improvement Budget.

In addition the WLR Division has adopted the following functional plans and regulations: Stormwater Management Program (SWMP) Plan, the Coal Creek Basin Plan, Soos Creek Basin Plan, Covington Master Drainage Plan, Bear Creek Basin Plan, Lower Cedar River Basin and Nonpoint Pollution Action Plan, Issaquah Creek Basin and Nonpoint Pollution Action Plan, May Creek Basin and Nonpoint Pollution Action Plan, Surface Water Design Manual, East Lake Sammamish Basin and Non-point Action Plan, Hylebos Creek and Lower Puget Sound Basin Plan, and the Water Quality Ordinance.

4. Solid Waste

The Solid Waste Division of the Department of Natural Resources and Parks manages all county-owned solid waste handling facilities, including recycling and transfer facilities and the Cedar Hill Regional Landfill. An inventory of facilities is available at the Solid Waste Division.

For additional information please see the current adopted version of the King County Comprehensive Solid Waste Management Plan and the Solid Waste Transfer and Waste Management Plan.

5. Sanitary Sewer Collection & Treatment

The Wastewater Treatment Division of the Department of Natural Resources and Parks ((-)) operates the regional wastewater treatment system for most of ((w))West King County, including the City of Seattle and portions of Snohomish County and Pierce County. The regional wastewater system consists of regional and local treatment plants and associated facilities including, conveyance pipelines, reclaimed water pipelines, outfalls, pump stations, regulator stations, and combined sewer overflow treatment plants. More information on the system's facilities is available in the King County Regional Wastewater Services Plan and capital project implementation plans.

Other operational plans for the Wastewater Treatment Division are the Combined Sewer Overflow Long Term Control Plan, Conveyance System Improvement Plan, King County Biosolids Plan, and the Strategic Asset Management Plan.

The Wastewater Treatment Division finances its capital program through the issuance of sewer revenue bonds, with the proceeds of federal and state grants and loans, and with revenues from the monthly sewer rate and the capacity charge.

6. Flood Warning and Flood Hazard Management

The River and Floodplain Management Program within the Water and Land Resources Division

of the Department of Natural Resources and Parks currently provides regional flood warning along the Snoqualmie, Tolt, Cedar, Green and White ((-)) Rivers and Issaquah Creek and flood hazard management services countywide. The King County Flood Hazard Management Plan is adopted to provide regional flood hazard management and identify capital needs and includes:

- A Risk Assessment to identify flood and erosion hazards, determine the impact and analyze the vulnerability of those hazards;
- Accomplishments since 1993;
- An inventory of existing flood protection facilities owned or managed by King County, showing their locations by river mile;
- A ten-year action plan that identifies the projects that will be completed and the projected cost over the ten-year time frame; and
- Flood hazard management risk areas and the proposed projects to address those risk areas.

7. Health & Human Services

Public Health

~~((The County Department of the Seattle-King County Public Health Department (SKCPHD)))~~
Public Health – Seattle & King County is charged with protecting the health and well-being of King County ~~((citizens))~~residents residing outside of the City of Seattle through prevention, intervention, education and regulation. Please see the Master Plan for Seattle-King County Public Health Facilities for an inventory of facilities, forecast of future needs and a finance plan.

Medical Examiner

The Medical Examiner Division of ~~((the Seattle-King County Health Department-))~~ Public Health – Seattle & King County investigates all sudden and unexpected, violent and suspicious deaths which occur in King County. For more information on the facility please see ~~((the King County Space Plan, Phase I: Operational Master Plan (OMP)))~~ the RAMP and the King County Public Health Operational Master Plan. A Facilities Master Plan for the Medical Examiner's Division evaluates requirements for future capital facility needs. Future finance plans will be developed to the extent major capital projects and recommended.

Emergency Medical Services

The King County Emergency Medical Services ((-)) Division is ((-)) responsible for coordinating all aspects of emergency medical services in King County and developing, implementing and administering a mobile intensive paramedic care services program in cooperation with King County fire districts, municipal fire departments, and hospital providers. The Emergency Medical Services are regional. For more information, please see the Emergency Medical

Services Master Plan.

Harborview Medical Center

Harborview Medical Center, the public health hospital for the region, operates trauma and burn centers; functions as the home base for Airlift Northwest; serves as the research and teaching facility for the University of Washington; manages the King County AIDS Clinic; and provides ambulatory and emergency room care. The services provided by the Harborview Medical Center are regional. For more information please see the Harborview Medical Center Long Range Capital Improvement Program Plan.

Human Services

The Department of Community and Human Services is responsible for planning, management, fiscal accountability and service delivery for programs of the ~~((Mental Health Chemical Abuse and Dependency Services Division))~~ Behavioral Health and Recovery Division, Community Services Division, and Developmental Disabilities Division~~((and the Office of Public Defense))~~. The Department does not own or operate capital facilities. Where applicable, King County distributes the federal and state funds to the various independently operated programs that are responsible for their own facilities. A list of programs that the Department of Community and Human Services supports is available at the King County Department of Human Services.

8. Law, Safety and Justice

The following sections address the Regional Justice Center and the Law, Safety and Justice Agencies which include the Corrections and Detention, Prosecuting Attorney Office, ~~((Office))~~Department of Public Defense, District Court,~~((Department of Public Safety,))~~ Sheriff's Office, Department of Judicial Administration, Youth Services Center and Superior Court~~((and Department of Youth Services))~~. The sections are further categorized by regional and local functions.

Regional Services

The Regional Justice Center

The agencies included in the ~~((Kent))~~King County Regional Justice Center are the Prosecuting Attorney, the Public Defense, Superior Court, Public Safety, District Court, Adult and Juvenile Detention and Judicial Administration. The complex houses detention beds, courtrooms and office space, and is located in the City of Kent in southeast King County.~~((The Phase II Regional Justice Center will be located in Northeast King County.))~~ For more information please see current adopted version of the Facilities Program Plan and the Facilities Master Plan for the King County Law, Safety and Justice.

Corrections and Detention

The King County Department of Adult Detention operates ~~((three-))~~ facilities for housing inmates at the King County Correctional Facility and the Work Release Facility in the Courthouse. ~~((The Health Department operates the North Rehabilitation Facility for inmates with less serious offenses-))~~ For more information please see the Facility Program Plan and the Regional Justice Center Facility Master Plan.

Prosecuting Attorney

For information on the Prosecuting Attorney's ~~((o))~~ Office please see the Law, Safety and Justice Facilities Map, the Facility Master Plan and the Facility Program Plan.

Judicial Administration

The Department of Judicial Administration serves as the Clerk's Office to the King County Superior Court and operates a full service branch office at the King County Regional Justice Center. The Department of Judicial Administration will increase office space in the Regional Justice Centers, the King County Courthouse and other locations throughout the County as outlined in the Facility Master Plan. Refer to the Facility Program Plan for the current space allocation and financing plans.

Superior Court

The Superior Court occupies space at the King County Courthouse, ~~((the Department of Youth Services))~~ King County Regional Justice Center, Youth Services Center and Harborview Medical Center. For more information please see the Facility Program Plan and the Facility Master Plan for the Regional Justice Center.

~~((Department of Youth Services~~

~~The Department of Youth Services operates a youth detention facility in the Seattle Central District. The Department of Youth Services also occupies non-detention space. The Department of Youth Services has no plans for any major capital projects and, therefore, does not have a financing plan.)~~

Local Law, Safety & Justice

District Courts

Currently, the King County District Court owns or leases eleven facilities. For more information please see Law, Safety and Justice Facilities Map. The forecast for staffing requirements is driven by expected workload. The staffing requirements are then translated into space needs. For more information please see the Facility Master Plan, the Facility Program Plan and the Regional Justice Center financing plan.

Public Safety

The King County ~~((Department of Public Safety))~~ Sheriff's Office is primarily responsible for the public safety of unincorporated King County and also provides regional services. The Facility Master Plan forecasts staffing for the department and relates staff to the expected staffing increases. Please refer to the Facility Program Plan for the staffing and space allocation. The amount of space at the precincts will depend on the size of the service area and changing operational requirements.

Please refer to the section entitled Regional Justice Center ~~((part))~~ for relevant financing details concerning the ~~((Department of Public Safety))~~ King County Sheriff's Office space in the Regional Justice Center. The Facility Program Plan for the King County Regional Justice Center contains details concerning the cost of space for ~~((Department of Public Safety))~~ the King County Sheriff's Office. Space needs for the ~~((Department of Public Safety))~~ King County Sheriff's Office outside of those included in the Regional Justice Center will be funded through the ~~((annual))~~ County's biennial budget process to prioritize and fund capital improvement projects.

9. Transportation

Please refer to the current adopted version of the King County Transportation Needs Report, the King County Six-Year Transit Plan and the Transportation Inventory ~~((on file at the Transportation Planning Division))~~ and Technical Appendix C: Transportation to the King County Comprehensive Plan.

B. Facilities and services provided by other entities:

King County has some existing processes for collecting the information required by the GMA for facilities and services. There are many special districts in King County that provide services for either water, sewer, schools, or fire. King County Code ~~((13.24))~~ requires certain water and sewer utilities to complete a comprehensive plan. The comprehensive plan requirements for each type of facility differ ~~((somewhat))~~. In general, they must all inventory facilities, projected needs, determine capacity, and provide capital improvement programs. King County has a Utilities Technical Review Committee (UTRC) that reviews and makes a recommendation to the King County Council to approve water and sewer plans and the School Technical Review Committee (STRC) that reviews and approves school plans. There are no such requirements for fire districts or libraries.

1. Drinking Water Supply

County ~~((citizens))~~ residents receive potable water from a variety of sources. These sources are classified ~~(())~~ as either private or public water systems. Private water systems serve only a

single connection and usually consist of a well (∴) used for a single home. There are an estimated 12,000 private water systems in King County.

Public water systems contain more than one connection. These systems are managed by:

- homeowners;
- private, non-profit organizations and corporations such as homeowners' associations;
- private, for-profit companies; and
- municipal governments and water/sewer districts.

Public water systems are further classified by size. A public water system is classified as a *Group B* system if, in general, it serves from 2 to 14 connections. About 1600 *Group B* public water systems currently operate in King County. In general, a *Group A* system serves 15 or more connections. There are 214 *Group A* public water systems in the county.

Most ((Citizens)) Residents Served by Seattle Public Utilities

The City of Seattle, through the Seattle Public Utilities, provides potable water for approximately 1,189,000 people, either through direct service or the sale of water to 18 other water utilities. The Cascade Water Alliance provides water to approximately 340,000 people. The remaining King County population, about 500,000 people, obtain((s)) their potable water from approximately 14,000 other public and private systems. The reason for the tremendous number of water systems with small numbers of connections is largely historical. At the time when many of these systems were developed there were no other viable options for water service. Over time, a regional network of inter-connected systems has been developed in some parts of the county. Although the regional network is not complete, many areas of the county can now be served without the need to form new water systems.

King County Regulatory Role in Water Supply

King County is not a water utility and does not supply potable water to ((citizens)) residents. Instead, King County has certain regulatory authority for Group A and Group B water systems that operate in unincorporated King County.

Several state agencies also have a role in regulating water utilities. The Washington State Department of Ecology issues water rights, which allow waters of the state (surface and ground water) to be appropriated for public benefit. A water right is required for any water utility using more than 5000 gallons of water per day or with 7 or more connections. The Washington State Department of Health regulates drinking water quality for Group A systems and Group B systems.

Group A systems that are expanding are required to prepare water system comprehensive plans every six years for approval by the Washington State Department of Health. If those expanding Group A systems operate in unincorporated King County, the plans are also required to be approved by King County. Water district comprehensive plans are also approved by King County. The following table ((below-)) identifies the water utilities that are required to plan for King County. The King County approval process consists of two steps, (1) review of the comprehensive plan by the Utilities Technical Review Committee, an inter-departmental staff group, and (2) approval by ordinance by the Metropolitan King County Council and King County Executive. The plans and their approving ordinances, and related plan review information, are available for inspection by the public by contacting the Chair of the Utilities Technical Review Committee at (206) 477-5387.

((-))

Water Utilities Required to Plan for King County

Algona, City of	King County Water District 119
Ames Lake Water Association	King County Water District 123
Auburn, City of	King County Water District 125
Bellevue, City of	Kirkland, City of
Black Diamond, City of	Lakehaven Utility District
Bothell, City of	Lake Forest Park Water District
Burton Water Company	Mirrormont
Carnation, City of	North Bend, City of
Cedar River Water and Sewer District	North City Water District
Coal Creek Utility District	Northwest Water Systems
Covington Water District	NE Sammamish Sewer & Water District
Diamond Springs Water Association	Northshore Utility District
Dockton Water Association	Pacific, City of
Duvall, City of	Preston Industrial Park Water Association
Enumclaw, City of	Redmond, City of
Fall City Water District	Renton, City of
Foothills Water Association	Sallal Water Association
Gold Beach Water Company	Sammamish Plateau Water & Sewer District
Heights Water System	Seattle, City of
Highline Water District	Skyway Water and Sewer District
Issaquah, City of	Snoqualmie, City of
Kent, City of	Snoqualmie Pass Water Utility District
King County Water District 19	Soos Creek Water and Sewer District
King County Water District 20	Tacoma, City of
King County Water District 45	Tukwila, City of
King County Water District 49	Union Hill Water Association
King County Water District 54	Upper Preston Water Association
King County Water District 90	Washington Water Service
King County Water District 111	Westside Water Association
King County Water District 117	Woodinville Water District

In addition, if a water system operates in the right-of-way of a King County road (i.e., if a system's water main runs along the road), then a franchise is required. A franchise is an agreement between King County and the water system identifying the conditions that must be met by the water system in order for it to operate in King County right-of-way. The County must approve any construction work proposed by a franchised utility in King County right-of-way.

Water and the King County Permitting Process

If your property is in unincorporated King County and you want to undertake development activity, you will need to obtain approval from the King County Department of Permitting and Environmental Review ~~((Services-))~~ (DPER). DPER will coordinate review of applications for building permits, subdivisions, rezones, and lot line adjustments and will require information demonstrating that water is available to serve the property. If you are proposing to obtain water from a private water system (a well connected to a single home), you will need at least five acres of property located in ~~((a Rural designated area (as opposed to inside the Urban Growth Area)))~~ the Rural Area. A private water system on five acres of property is allowed within the Urban ~~((-designated-a))~~ Area only if public water cannot be provided in a timely and reasonable manner. However, any property owner receiving permission to put a private system in ~~((an-))~~ the Urban ~~((a))~~ Area must agree to connect to a public water system when public water is available. In all cases, you will need approval of the private well site from ~~((the Seattle King County Department of Public Health))~~ Public Health – Seattle & King County.

If you are proposing to obtain water from a public water system, then you need to obtain a certificate of water availability from the public water system. The certificate demonstrates that the public water system has water available to serve the new connection or connections being proposed. Sometimes a public water system is limited in its ability to provide water to new connections because of supply, water right or infrastructure limitations. In such cases, the water system may declare a moratorium on new connections and may not issue new certificates of water availability. Several water utilities in the county have declared moratoria over the years ~~((- including Covington Water District, King County Water District 111, Sammamish Plateau Water and Sewer District, City of North Bend, and King County Water District 19))~~.

Public Water System Coordination Act

Chapter 70.116 RCW, the Public Water System Coordination Act, was used by King County in the past to establish four planning areas -- East King County, Skyway, South King County, and Vashon. King County, the Washington State Department of Health, and water utilities have developed a Coordinated Water System Plan (CWSP) for each of these four areas. The plans establish service areas, provide water demand forecasts, and discuss minimum water system design requirements. Water system plans prepared by individual water utilities, such as those listed in the table above, must be consistent with all applicable CWSPs. The CWSPs and their approving ordinances, and related plan review information, are available for inspection by the

public by contacting the Chair of the Utilities Technical Review Committee at (206) 477-5387.

2. Sanitary Sewer Collection & Treatment

In general, public sewers are required in the urban area and prohibited in the rural area, where on-site wastewater treatment and disposal (septic) systems are used. Chapter 9: Services, Facilities and Utilities (~~The Facilities and Utilities chapter~~) of the King County Comprehensive Plan and King County Code chapters 13.24, 28.84, and 28.86 provides policy guidance regarding public sewer facilities.

Local and Regional Wastewater Treatment Facilities

The wastewater collected by public sewers is conveyed to either a local treatment plant or one of King County's regional wastewater treatment plants. Local treatment plants include those operated by Duvall, Enumclaw, North Bend, Snoqualmie, Midway Sewer District, Lakehaven Utility District, Snoqualmie Pass Utility District, and Southwest Suburban Sewer District. In addition, King County operates the local treatment plant on Vashon Island and a local treatment plant in the City of Carnation.

King County provides regional wastewater conveyance and treatment at its three regional treatment plants, the West Point Treatment Plant in Seattle, South Treatment Plant in Renton, and the Brightwater Treatment Plant north of Woodinville, in unincorporated Snohomish County.

King County provides regional wastewater treatment to 17 cities and 17 local utilities. The county's Wastewater Treatment Division serves about 1.5 million people, including most urban areas of King County and parts of south Snohomish County and northeast Pierce County.

King County Regulatory Role in Wastewater Treatment

The Washington State Department of Ecology requires sewer utilities to prepare sewer comprehensive plans. King County (~~code~~) reflects this state mandate by requiring that sewer utilities prepare sewer comprehensive plans if they are located in King County and discharge to King County's system or serve unincorporated areas. A new sewer comprehensive plan is required every six years. The sewer utilities required to plan are shown in the following table.

Sewer Utilities Required to Plan for King County

Algona, City of	North Bend, City of
Auburn, City of	Northshore Utility District
Bellevue, City of	Pacific, City of
Black Diamond, City of	Redmond, City of
Bothell, City of	Renton, City of

Carnation, City of	Ronald Wastewater District
Cedar River Water and Sewer District	Sammamish Plateau Water & Sewer
Coal Creek Utility District	Seattle, City of
Duvall, City of	Skykomish, City of
Highlands Sewer District	Skyway Water and Sewer District
Issaquah, City of	Snoqualmie, City of
Kent, City of	Snoqualmie Pass Utility District
Kirkland, City of	Soos Creek Water and Sewer District
Lake Forest Park, City of	Southwest Suburban Sewer District
Lakehaven Utility District	Stevens Pass Sewer District
Mercer Island, City of	Tukwila, City of
Midway Sewer District	Valley View Sewer District
Muckleshoot Tribe	Vashon (Sewer) <u>Sewer</u> District
NE Sammamish Sewer & Water District	Woodinville Water District

The King County approval process for sewer comprehensive plans consists of either one or two steps depending on whether the utility serves unincorporated areas or not. If service is provided to unincorporated areas, then the plan undergoes the following: (1) review of the comprehensive plan by the Utilities Technical Review Committee (~~(, an inter-departmental staff group)~~), and (2) approval by ordinance by the Metropolitan King County Council and King County Executive. If a sewer utility discharges to the King County conveyance and treatment system, but does not serve unincorporated King County, then the plan undergoes technical review by the Utilities Technical Review Committee and approval by the Director of the Department of Natural Resources and Parks. The plans and their approving ordinances, (if any) and related plan review information, are available for inspection by the public by contacting the Chair of the Utilities Technical Review Committee.

Public Sewers and the King County Permitting Process

If your property is in unincorporated King County and you want to undertake development activity, you will need to obtain approval from the King County Department of Permitting and Environmental Review (DPER). DPER will coordinate review of applications for ~~(-)~~ building permits, subdivisions, rezones, and lot-line adjustments and will require information demonstrating that sewer service is available to serve the property. If you are proposing to have an on-site wastewater treatment (septic) system, you will need to meet the minimum lot size, setback, and design requirements identified in the ~~(Seattle)~~ Code of the King County Board of Health ~~(-Regulations))~~ – Title 13: On-Site Sewage.

If you are proposing to utilize public sewers, then you need to obtain a certificate of sewer availability from a sewer utility. The certificate demonstrates that the sewer utility has capacity available to serve the new development being proposed. Sometimes a sewer utility is limited in

its ability to accept additional sewage flows because of capacity or treatment constraints. In such cases, the sewer utility may declare a moratorium on new sewer connections and may not issue new certificates of sewer availability.

3. Schools

King County does not own or operate school facilities. King County Code includes a method for school districts with territory in unincorporated King County to request the collection of an impact fee from new residential developments when the district is experiencing a lack of capacity due to growth. The district must adopt a six-year capital facilities plan that plans for new capacity and submit the plan to King County for adoption as a capital facilities component of the King County Comprehensive Plan. King County's School Technical Review Committee reviews each school district's capital facilities plan, enrollment projections, standard of service, the district's overall capacity over a six-year time frame to ensure consistency with the King County Comprehensive Plan, adopted community plans, and the district's calculation and rationale for proposed impact fees.

School district capital facility plans are adopted annually by King County. Of the 20 districts in the County, 13 (~~of the~~) have plans (~~are~~) currently adopted by the County. Since capital facilities plans are not mandatory for special districts under GMA, King County has no way of compelling a school district to prepare a plan unless they want a school impact fee. The Seattle, Mercer Island and Tukwila school districts do not have any unincorporated territory so they are not eligible for a school impact fee from King County. The Bellevue, Shoreline, Skykomish and Vashon school districts have territory in unincorporated King County but have adequate capacity in existing facilities and therefore are not eligible for impact fees and are not required to submit a plan to King County.

In general, school districts obtain funds for new construction and improvements to existing facilities from voter-approved bonds. School districts may also qualify for state matching funds for new construction and for the renovation of capital facilities based on a formula that considers a number of factors, including the assessed valuation of the property within the particular school district. In addition, school districts have the authority to request one-year capital project levies and six year renovation and modernization levies, with voter approval. Operating funds come from the state for "basic education." Programs that are not funded by the state are funded through maintenance and operation levies.

For more information, please see the current adopted versions of the following plans:

Auburn School District No. 408 Capital Facilities Plan

Enumclaw School District No. 216 Capital Facilities Plan

Federal Way School District No. 210 Capital Facilities Plan

- Fife School District No. 417 Capital Facilities Plan
- Highline School District No. 401 Capital Facilities Plan
- Issaquah School District No. 411 Capital Facilities Plan
- Kent School District No. 415 Capital Facilities Plan
- Lake Washington School District No. 414 Six-Year Capital Facilities Plan
- Northshore School District No. 417 Capital Facilities Plan
- Renton School District No. 403 Capital Facilities Plan
- Riverview School District No. 407 Capital Facilities Plan
- Snoqualmie Valley School District No. 410 Capital Facilities Plan
- Tahoma School District No. 409 Capital Facilities Plan

4. Fire Protection

King County does not own or operate fire districts. Fire protection districts are responsible for delivering emergency services, including fire protection and emergency medical services countywide. Fire districts are required to plan consistent with the King County Comprehensive Plan and to use the King County Comprehensive Plan as a basis for determining future land use, housing, and other relevant elements of the plan for information to plan their future growth. Most of the fire protection districts project population growth based on King County projections from the Annual Growth Report. In addition, they use response time as the level of service standard for judging when new facilities are needed. The majority of fire districts fund capital projects within their current year operating budget, or ((float)) request bond issues for large capital projects.

Fire Districts and Fire Stations with service in unincorporated King County

Fire District Number:	Locally known as:
King County Fire Protection District No. 10 a. Station 74 b. Station 76 c. Station 78 d. Station 79 e. Station 86	Eastside Fire and Rescue – Issaquah
King County Fire Protection District No. 11 a. Station 18	North Highline Fire District
King County Fire Protection District No. 13 a. Station 55 b. Station 56 c. Station 57	Vashon Island Fire & Rescue

d. Station 58 e. Station 59	
King County Fire Protection District No. 14	Kirkland
King County Fire Protection District No. 16	Bothell/Kenmore
King County Fire Protection District No. 20 a. Station 21 b. Station 22	Skyway Fire
King County Fire Protection District No. 24	Kent Fire
King County Fire Protection District No. 25	Renton Fire
King County Fire Protection District No. 27 a. Station 271	Fall City Fire
King County Fire Protection District No. 28 a. Station 2 b. Station 3	Enumclaw Fire
King County Fire Protection District No. 31	Auburn Valley Regional Fire
King County Fire Protection District No. 34 a. Station 13 b. Station 14 c. Station 18	Redmond Fire
King County Fire Protection District No. 36 a. Station 33 b. Station 35	Woodinville Fire & Rescue
King County Fire Protection District No. 37	Kent Fire
King County Fire Protection District No. 38 a. Station 88	North Bend, Eastside Fire and Rescue – Issaquah
King County Fire Protection District No. 39 a. Station 61 b. Station 65	South King Fire & Rescue
King County Fire Protection District No. 40 a. Station 17	Renton Fire
King County Fire Protection District No. 43 a. Station 82 b. Station 84 c. Station 85	Maple Valley Fire
King County Fire Protection District No. 44 a. Station 92 b. Station 93 c. Station 94 d. Station 95 e. Station 96 f. Station 97 g. Station 98	Mountain View Fire & Rescue
King County Fire Protection District No. 45 a. Station 68 b. Station 69	Duval Fire

King County Fire Protection District No. 47 a. Station 88 b. Station 89	Kangley Palmer Fire-Ravensdale
King County Fire Protection District No. 50	Skykomish Fire – Covers Stevens Pass Also
King County Fire Protection District No. 51 a. Station 291	Snoqualmie Pass Fire Department

5. Libraries

Libraries in King County are maintained by the King County Library System (KCLS), which is not part of County government. KCLS serves residents in unincorporated areas and in annexed and contracting cities. KCLS also contracts with King County to provide services in the King County Jail, ((North Rehabilitation Facility,)) Youth Service Center, Cedar Hills Alcoholism Treatment Facility and Kent Regional Justice Center.

Long-term plans are addressed in the system's current Long Range Plan. At the heart of the plan is a distribution of library facilities and collections based on population projections of the King County Annual Growth Report, community profile and assigned roles for each library. The system of capital facilities owned and operated by the King County Library System consists of community libraries listed in ((Table 7)) the following table.

The program for library building and renovation is detailed in the KCLS Capital Plans and Facility Assessment Program. Call ((206-684-6605)) 425-369-3200 for more information.

King County Library System Facilities

Algona-Pacific	Lake Forest Park
Auburn	Lake Hills
Bellevue Regional	Maple Valley
Black Diamond	Mercer Island
Bothell Regional	Muckleshoot
Boulevard Park	Newcastle
Burien	Newport Way
Carnation	North Bend
Covington	Redmond Regional
<u>Crossroads</u>	<u>Redmond Ridge</u>
Des Moines	Renton
Duvall	<u>Renton Highlands</u>
<u>Enumclaw</u>	Richmond Beach
Fairwood	Sammamish
Fall City	Service Center
Federal Way Regional	Shoreline
Federal Way 320 th	Skykomish
Foster	Skyway
<u>Greenbridge</u>	Snoqualmie

Issaquah	Southcenter
Kenmore	((Tukwila)) Valley View
Kent Regional	Vashon
Kingsgate	White Center
Kirkland	Woodinville
	Woodmont

6. Electric, Gas and Telecommunications

Electric, gas, and telecommunications facilities in King County are a mix of private and public ownership. They are subject to varying levels of regulatory oversight from local, state, and ((-)) federal agencies. These facilities and services differ from other facilities and services contained in this technical appendix in that there is no requirement for a finance plan or for level of service standards. Finance plans are not required for private electric, gas, and telecommunications facilities that provide services to unincorporated King County.

Reference is made below to the utilities' current plans for resources or facilities. Resource plans are updated on a schedule mandated by the regulatory body such as the Washington Utilities and Transportation Commission or the Seattle City Council. Resource plans may also be called integrated resource plans, least-cost plans, or similar terms.

The inventories and maps of electric, gas, and most telecommunications facilities are limited to the major elements of the utility network and generally do not include the minor facilities that deliver the service to the end user.

Electric

Electric utilities in King County share what is described as an "integrated regional electric system." Regardless of ownership, all elements of the system are designed and operated to work in a complementary manner. The elements include transmission lines, substations and generation facilities. Current capital facilities plans and six-year finance plans are available from Bonneville Power Administration, Seattle City Light, Puget Sound Energy and the Tanner Electric Cooperative.

Natural Gas

Puget Sound Energy is the major supplier of natural gas to King County. The City of Enumclaw operates a local distribution system that serves local customers in unincorporated King County. For information on the Puget Sound distribution system and areas where natural gas service is and is not available, please contact Puget Sound Energy or the City of Enumclaw.

Telecommunications

Telecommunications services include both switched and dedicated voice, data, video, and other

communication services delivered over the telephone and cable network on various mediums, including, but not limited to, wire, fiber optic, or radio wave. Either regulated or non-regulated companies may provide these services. Cable service includes communication, information and entertainment services delivered over the cable system whether those services are provided in video, voice or data form.

Telecommunication services follow growth and have capacity to match whatever growth occurs in King County. The telecommunications network is gradually being updated to fiber optic but the exact schedule and locations are not available.

**Attachment D to Proposed Ordinance 2016-0155
Technical Appendix B to the 2016 Comprehensive Plan**



King County

2016

King County Comprehensive Plan Update

TECHNICAL APPENDIX B

HOUSING

~~((September 1))~~ November 22, 2016

Technical Appendix B

Housing

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I. Introduction

Housing Needs Analysis

In 1994, King County adopted its Comprehensive Plan under the framework of the Washington State Growth Management Act and the King County Countywide Planning Policies (CPPs). Since that time, the Comprehensive Plan has guided King County's housing efforts through a variety of ways. The County exercises direct control over some measures such as development regulations in unincorporated areas. The County also provides direct funding for affordable housing efforts through the King County Housing and Community Development Program.

In addition to direct efforts, the County works in conjunction with many public, private and nonprofit entities to promote housing development and affordability. The County is a partner with most cities outside of Seattle through the Community Development Block Grant (CDBG) and HOME Investment Partnerships Program (HOME Program) Consortia to allocate and administer affordable housing development funds. Recent efforts and strategies of the Consortium are detailed in the 2015-2019 Consolidated Housing and Community Development Plan (Consolidated Plan). The County also participates with most¹ cities, including Seattle, in the administration and allocation of Regional Affordable Housing Program (RAHP) funds.

In addition, the County participates with all cities in the Growth Management Planning Council (GMPC) to address housing affordability and planning, and partners with cities through subregional funding and planning groups including: A Regional Coalition for Housing (ARCH), the North King County Human Services Planners, the South King County Human Services Planners, and Sound Cities Association to plan for and provide affordable housing in those subregions.

This Housing Technical Appendix provides an assessment of the demographic and economic characteristics of persons and households in King County, the local housing stock, and its ability to serve the housing needs of County residents now and in future. This analysis provides the basis for policies in the Housing and Human Services Section of the Urban Communities Chapter of the King County Comprehensive Plan.

This analysis recognizes that most housing will be developed by the private sector and that the majority of housing development will occur within cities. Rural unincorporated areas are not anticipated to have a significant amount of housing development and therefore this analysis concentrates on housing development within the urban growth boundary. In addition, unincorporated urban areas will continue to be annexed to existing cities over the coming years. While the County maintains influence on housing development in these areas through

¹ All cities in King County are eligible to sign a RAHP Agreement with the County, but not all cities elect to do so. A majority of cities representing the most populated areas of King County do sign RAHP Agreements.

development regulations, the analysis anticipates that the magnitude of this influence on housing development will diminish due to annexations.

As a result, the County's role as a regional leader and administrator of Consortium efforts will become the County's primary mechanism to promote housing development and affordability. Therefore, this analysis provides significant focus on housing stock and demographics data for all of King County and for areas outside of Seattle (Consortium cities) to provide an integrated view, analysis and response to housing needs at a countywide level.

DATA SOURCES

This analysis relies upon a variety of data sources compiled at various times over the last three decades. Sometimes these data sources are not directly comparable but are similar enough that they can be used to identify trends.

The main data sources for this analysis are the 2010 U.S. Census, the American Community Survey (ACS) for 2007 – 2011 and 2013, and HUD Comprehensive Housing Affordability Study (CHAS) for 2008 - 2012 data. Data from the census is now limited to basic demographic data such as age, race, and ethnicity, household type and size, and housing tenure.

The five-year ACS survey data provides information on income, poverty, immigrant population, language spoken at home, housing cost burden, and other data that is no longer collected by the decennial census. Only the five-year ACS aggregation provides this information at the census tract level and for census-designated places smaller than 20,000 persons. Other sources for the analysis in this appendix are:

- The 1990 Decennial Census and the 2000 Decennial Census (for historical comparison);
- King County Buildable Lands Report;
- King County Assessor's data;
- Washington State Employment Security Department;
- United States Department of Housing and Urban Development;
- Dupre + Scott Apartment Advisors, Inc.;
- Puget Sound Regional Council;
- Northwest Multiple Listing Service; and
- Draft Area Plan on Aging for Seattle-King County, 2016-2019.

II. Definitions

A. Affordable Housing

Affordable Housing is defined by the Department of Housing and Urban Development as housing affordable at 30 percent or less of a household's monthly income. This is a general term that may include housing affordable to a wide range of income levels. There are some differences in how this is calculated for rental housing and ownership housing.

Affordable Rental Housing means a housing unit for which the monthly rent including basic utilities amount to 30 percent or less of a household's monthly income, and which matches or exceeds the size designated for the number of persons in the household.

Affordable Ownership Housing means a housing unit for which the monthly mortgage payment (principal and interest) and other costs including property taxes and if applicable, homeowners dues or insurance, amount to no more than 30 percent of the household income, and which matches or exceeds the size designated for the number of persons in the household.

Area Median Income (AMI) or "Median income" means annual household income for the Seattle-Bellevue, WA Metro Area as published on approximately an annual basis by the U.S. Department of Housing and Urban Development (HUD). The AMI includes adjustments in income level and affordable rent according to household size, and based on a presumed correspondence between household size and the size of the housing unit, and on the likelihood that larger households may have more than one wage-earner. "Area" means the Seattle-Bellevue HUD Metropolitan Fair Market Rent Area (HMFA) which in 2015 included King and Snohomish Counties. Median income is also reported by the annual American Community Survey.

Very low-income households are households earning 30 percent AMI or less for their household size.

Low-income households are households earning 31 percent to 50 percent AMI for their household size.

Moderate-income households are households earning 51 percent to 80 percent AMI for their household size.

Middle-income households are households earning 81 percent to 120 percent AMI for their household size.

Affordable rent or sales price assume that a household will generally need one less bedroom than the number of persons in the household, for example a two person household would need a one bedroom unit while a three person household needs a two bedroom unit. However, HUD

assumes a correspondence between household size and income and the size of the housing unit in setting maximum rents. In 2015 the assumptions were the following.

Studio Units	One person household
One bedroom Units	One and a half (1.5) person household
Two bedroom Units	Three person household
Three bedroom Units	Four and a half person household

For rental units, affordable housing costs typically assume inclusion of basic utilities. These assumptions are not consistent in all data used in this analysis and therefore some figures may not be directly comparable. However, it is anticipated that these differences are minor enough to allow for general comparisons and will not significantly affect the conclusions of this analysis.

Other Definitions

Workforce Housing is housing that is affordable to households with one or more workers. Creating workforce housing in a jurisdiction implies consideration of a range of income levels from 30 percent to 80 percent of AMI. There is a high need for workforce housing that is close to job centers and high capacity transit.

Universal Design is the design of products, buildings, and environments to be usable by all people, to the greatest extent possible, and which allows people to age in place in their home without the need for adaptation or specialized design. Universal design is a component of both sustainable development and healthy housing.

Sustainable Development seeks to balance urban growth with natural resource protection and energy efficiencies which help address climate change. Building location is central to sustainability and may also include general design, site planning (e.g. low-impact development practices), preservation of trees, construction and operational practices, water savings, energy efficiencies, materials selection, durability, enhanced indoor environmental quality, lower dependence on automobile transportation, and adaptability to all stages of life.

Healthy Housing is housing which protects all residents from exposure to harmful substances and environments, reduces the risk of injury, provides opportunities for daily physical activity, and assures access to healthy food and social connectivity. These goals can be achieved through building practices that promote health, land use patterns, transportation systems, open space and other amenities which result in healthy neighborhoods.

B. King County Consortium

Since the late 1970's, King County has provided housing planning and program administration on behalf of a Consortium of jurisdictions organized to receive federal Community Development Block Grant (CDBG) funds, HOME Investment Partnership Act (HOME) funds, and Emergency Solutions Grant (ESG) funds. The Consortium presently includes unincorporated King County and 36 municipal jurisdictions in King County.²

King County administers federal resources on behalf of the Consortium as well as state and local housing funds. The County works cooperatively with other jurisdictions to award funds through a competitive process to projects which address high priority needs and goals identified in the Consolidated Plan and related plans such the King County Strategic Plan, King County Countywide Planning Policies, VISION 2040, and Health and Human Services Transformation and the joint Transformation initiatives including Familiar Faces, Communities of Opportunity, Accountable Communities of Health and its subcommittees, and Best Starts for Kids Levy.

C. Subregions of the King County

For purposes of this analysis, much of the data has been aggregated to large subregions which, along with the City of Seattle, account for all King County. Outside of Seattle, most of the North, East Urban, and South Regions fall within the Urban Growth Area of King County, with the exception of Vashon which is included with the South Region, and parts of Union Hill/Novelty Hill, which is included in the East Urban Region. There are still unincorporated urban areas of King County, such as White Center, Skyway, Fairwood, and north and south Lakeland that fall within these urban regions. The remaining two regions, the Northeast Rural Cities and Rural Region, and the Southeast Region, include incorporated cities (such as Carnation, Snoqualmie, Covington and Enumclaw), rural areas, and at least one unincorporated area (East Renton Highlands) that straddles the urban growth boundary and contains both urban and rural parts. Cities such as Carnation, Snoqualmie, and Enumclaw have traditionally been called "rural cities". They are officially within the urban growth area of the County, but they are surrounded by rural areas.

For purposes of the King County Consortium Consolidated Housing and Community Development Plan (Consolidated Plan) King County is divided into three general subregions: North/East, South, and Seattle.

² The cities of Seattle, Bellevue, Kent, Federal Way, and Auburn do not participate in the CDBG Consortium because they receive their own CDBG funds. The cities of Bellevue, Kent, Federal Way, and Auburn do, however, participate in the HOME Consortium. Four cities, Kirkland, Redmond, Renton, and Shoreline are "Joint Agreement Cities" which qualify for their own CDBG funds, but choose to administer them jointly with King County. For more information about this programs, see the Consolidated Plan posted at the link below.

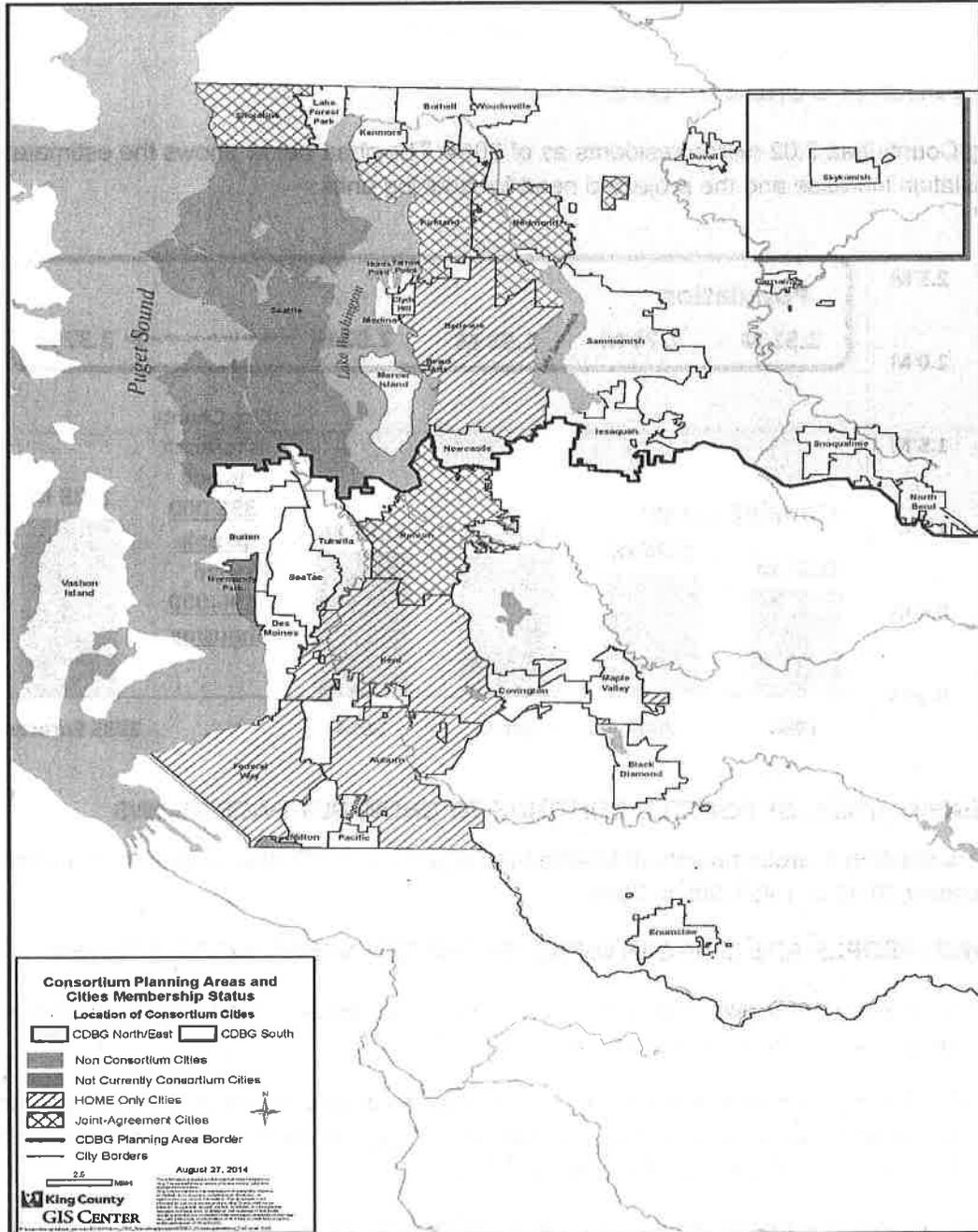
http://www.kingcounty.gov/socialservices/Housing/PlansAndReports/HCD_Plans/ConsolidatedPlan.aspx

There are several reasons for this particular regional division. One is that Consortium funding is apportioned to areas outside of Seattle, and CDBG funding, in particular, is generally allocated between the North/East regions of the County, and the South/Southeast regions of the County. The dividing line is roughly south of Newcastle and south of Issaquah. Another reason for this division is that the East Urban Region corresponds closely to the cities that belong to A Regional Coalition for Housing (ARCH).

Because ACS data is not available at the census-block level, and because census tracts often cross city boundaries, it has usually been more efficient to aggregate census and ACS data based on cities and census-designated places (CDPs) into these regions, rather than to aggregate it based on census tract data.

The map on the following page shows the subregions of the County used in the Consolidated Plan.

King County Consortium CDBG/HOME/ESG Planning Area



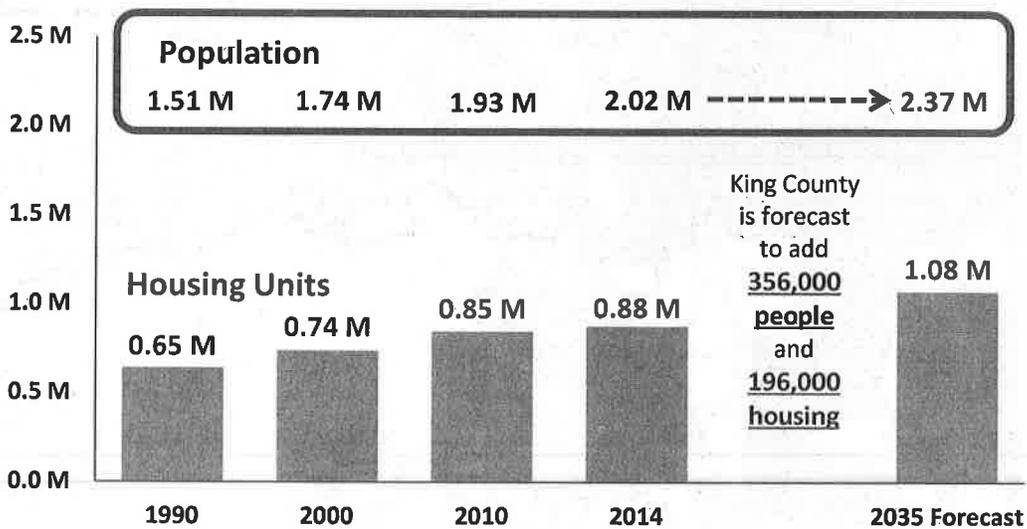
III. Characteristics of Households

A. Demographic Trends

GROWTH

KING COUNTY'S GROWTH RATE

King County had 2.02 million residents as of 2014. The chart below shows the estimated population increase and the projected need for housing units.



AREAS OUTSIDE OF SEATTLE CONTINUE TO GROW BUT PACE SLOWS

The population in areas outside of Seattle increased from 1,173,660 in 2000 to 1,322,589 persons in 2010 to 1,427,595 in 2014.

FEWER PEOPLE ARE LIVING IN UNINCORPORATED AREAS, MORE IN CITIES

Most of the county's growth has been in the cities, while the unincorporated areas of King County continue to shrink in size and population.

The number of residents living in unincorporated areas dropped more than seven percent during the 2000 – 2010 decade mainly due to annexations. The unincorporated population fell from 349,773 (2000) to 325,000 (2010) to 253,300 (2015).

A drop in the unincorporated population occurred in 2010 (post-census) and 2011-2013 when large annexations took effect in Burien (part of White Center), Kent (Panther Lake area) Kirkland (Finn-Hill and Juanita Kingsgate), Bellevue (Eastgate) and Bothell. This reduced the unincorporated population and added that population to the cities. With this change, residents of

the unincorporated areas are about 13 percent of the County's total population. With the recent annexations included, 87 percent of King County residents now live in cities.

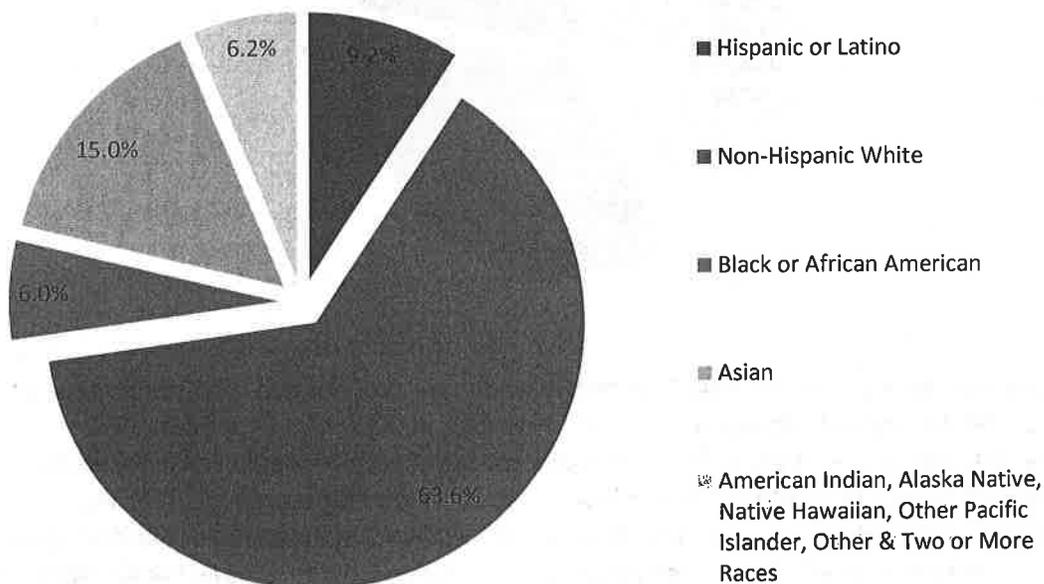
Because King County administers funds for affordable and homeless housing and for community development throughout most of the cities of King County, as well as for the unincorporated areas of the County, this appendix covers demographic, income and housing trends for all of King County with a particular emphasis on King County outside Seattle.

RACE and ETHNICITY

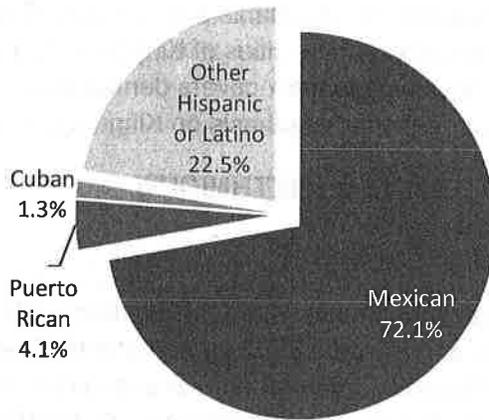
DIVERSITY HAS INCREASED

In 2000, 73.4 percent of King County residents were non-Hispanic white. By 2010, this figure had decreased to 64.8 percent. In other words, 35.2 percent of the population were "persons of color" defined as those who are Hispanic-Latino or non-white or both. The group with the greatest growth was the Hispanic/Latino population (of any race) which rose to 9.2 percent of the population. Asian population rose from under 11 percent to 15 percent.

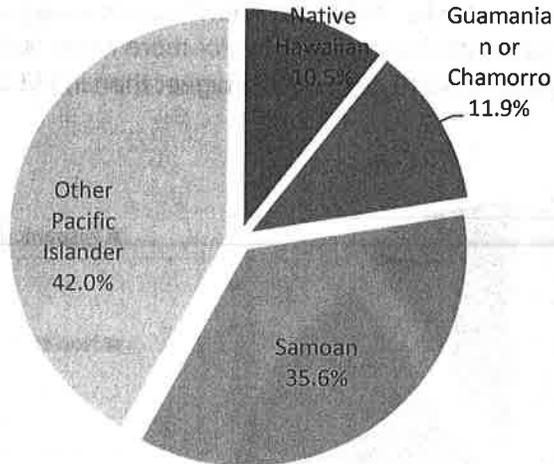
The percentage of non-Hispanic black residents rose to 6.2 percent. The percentage of Native American residents remained similar at 0.7 percent. The percentage of Hawaiian and Pacific Islander residents is 0.7 percent. Residents of two or more races, but non-Hispanic, made up 4.1 percent of the population in 2010, just slightly higher than in 2000.



Hispanic and Latino Sub-Groups in King County, outside of Seattle



Pacific Islander Sub-Groups in King County, outside of Seattle

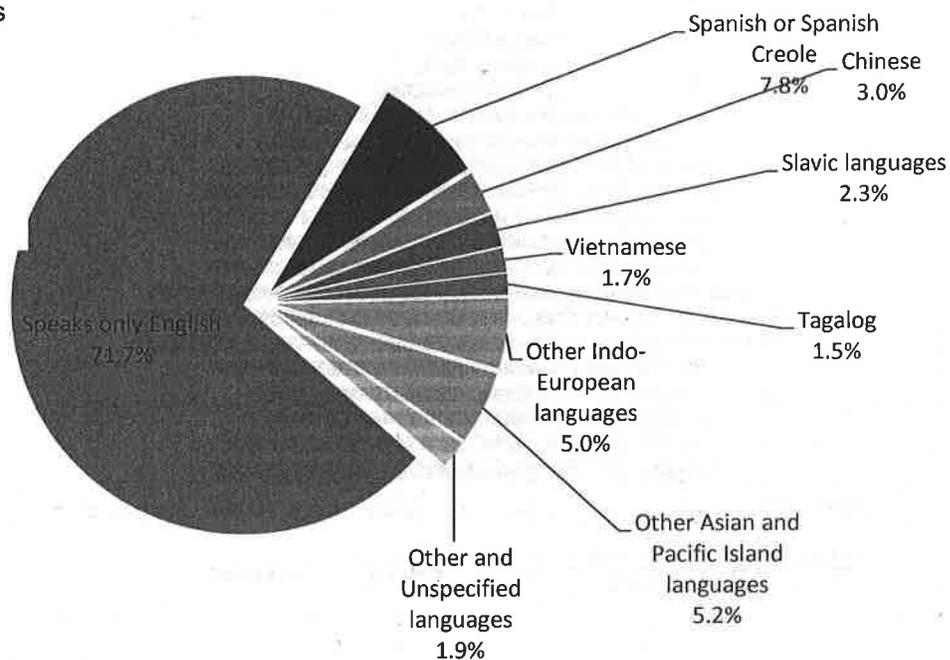


In areas outside of Seattle, the increase in diversity was more pronounced. The percentage of Non-Hispanic White residents decreased from 76.1 percent in 2000 to 64.1 percent in 2010 to 62.5 percent in 2013. The percentage of Non-Hispanic Black residents increased from 3.9 percent in 2000, to 5.2 percent in 2010, and to 6 percent in 2013. The percentage of Asian residents increased to 15.5 percent. Native American residents decreased slightly from 0.9 percent to 0.7 percent of the population outside Seattle. Pacific Islands account for 0.9 percent of the population, 4.0 percent are mixed race and 0.2 percent are of "other race". Together those who identified as American Indians, Pacific Islanders, "other races" or mixed races (but non-Hispanic) were 6.4 percent of the population outside of Seattle.

MAJORITY OF GROWTH IN KING COUNTY IS FROM IMMIGRATION

More of King County's growth since 2000 has been from foreign-born immigrants. The pie figure below shows most the languages spoken in King County.

Languages Spoken in King County Outside of Seattle

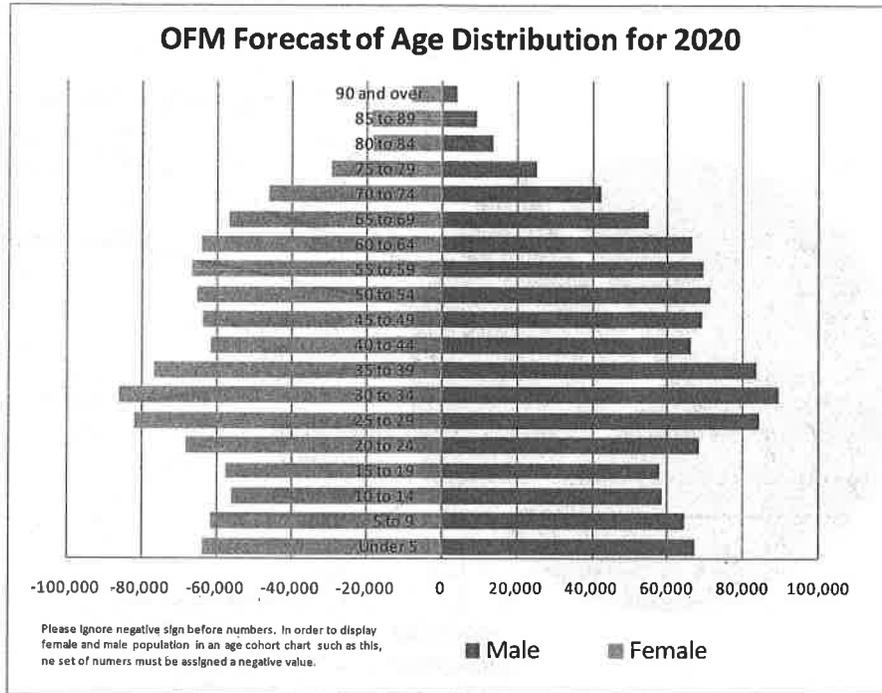


AGE

MEDIAN AGE IS OLDER COUNTYWIDE, SOUTH KING COUNTY IS RELATIVELY YOUNG

The median age in the County, from the 2010 census, was 37.1 years compared to 35.7 years in 2000. Women's median age is ((about)) 1.6 years older than men's. The U.S. median age is just slightly higher at 37.2 years.

As a comparison of these two age-cohort charts shows, the relatively large age groups from 25 to 60 are moving upwards in age, increasing the 55 + population, while the youth and teen populations remain relatively stable.



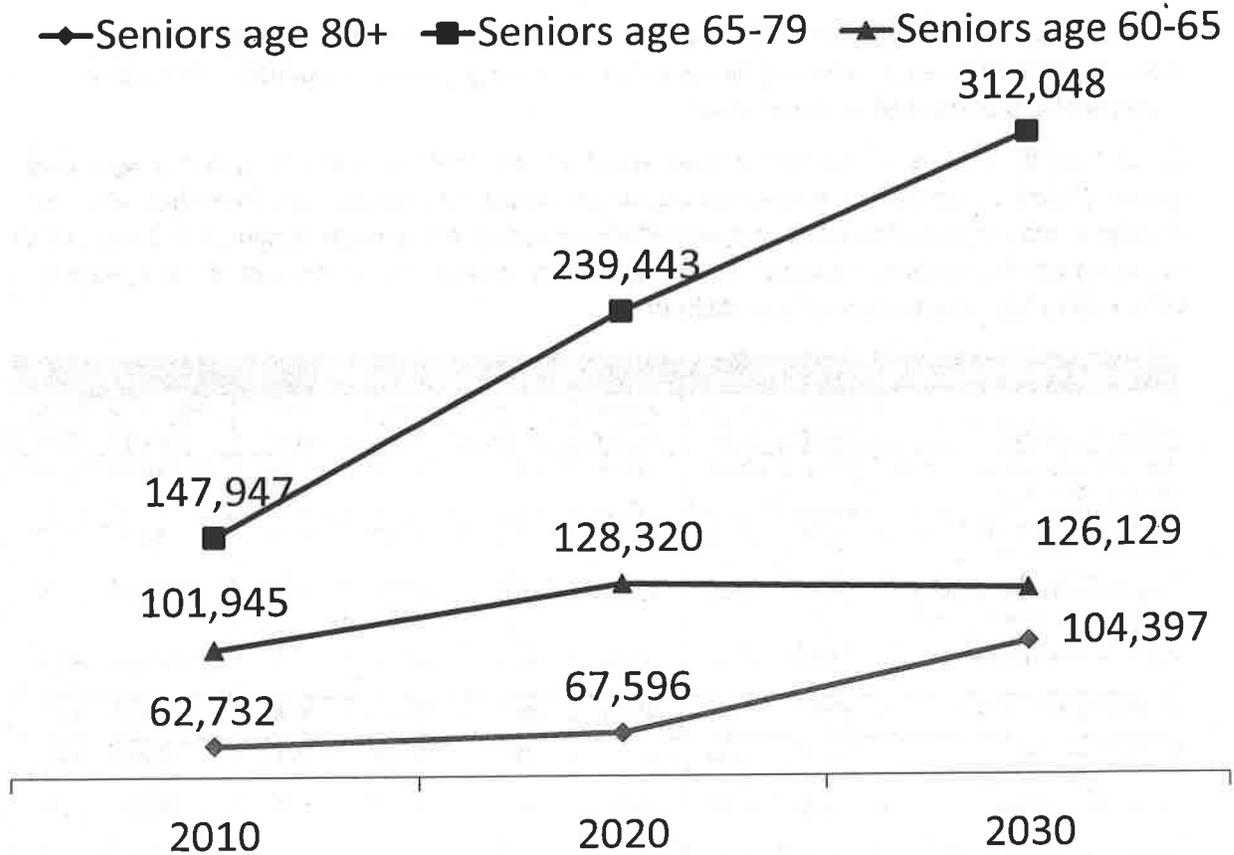
The Office of Financial Management projections depend on significant in-migration in the 20 - 35 year old age group – more so than would be expected solely from the aging of that smaller cohort. Given the number of young adults who come to King County for study and jobs, this may be a realistic assumption.

SENIOR POPULATION WILL GROW SIGNIFICANTLY IN COMING DECADE

Even after accounting for a generous amount of out-migration of older adults, there is likely to be a large increase in the population of adults over 65 years of age in King County in the next decade. Depending on the level of out-migration, this increase could be as high as 150,000 or more as the baby boomers (born from 1945 – 1964) continue to age. The end of the baby boom generation will turn 65 in 2030.

Taken together King County is likely to see the addition of over 150,000 seniors in the next ~~((fifteen))~~ 15 years with the largest cohort over the age of 80. This increased number means there is a high need to increase the housing stock for seniors in King County.

Increase in Senior Population Ages 65-79



NEARLY HALF OF SENIORS LIVE ALONE

~~((Forty eight))~~ 48 percent of senior households are single person households. ~~((Forty one))~~ 41 percent are married couples who may or may not have children or others living with them. Eight percent of seniors live with other family members but with no spouse, while three percent of seniors live with an unrelated (non-family) person. It appears that the senior population - those over 65 years of age - is spread fairly evenly between Seattle and the suburban and rural areas.

HOUSEHOLD TYPES

NON-FAMILY³ HOUSEHOLDS CONTINUE TO INCREASE

Continuing the trends of the last few decades, the 2010 census showed that the number of non-family households have increased, reaching 41.5 percent of all county households compared to 35.5 percent in 1980. Non-family households include single persons and unrelated individuals living together.

While numerically family households have increased by over 41,000 (just under ~~((40))~~ ten percent), they have again declined as a percent of all King County households. They now represent 58.5 percent of all households.

Since 1980 the number of married couples with their own children under 18 years of age have declined from 25 percent of all households, to just 20 percent. Since 2000 there has been no change in the percent of married couples without children, and a small decline in the percent of single parent households. However, there has been a notable rise in the number and percent of extended family households without children.

Type of Household (HH)	1980		1990		2000		2010	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Family Households*	320,707	64.5%	378,290	61.4%	419,959	59.1%	461,510	58.5%
Married Couples with own Children less than 18 years old	125,091	25.2%	139,346	22.6%	150,574	21.2%	158,646	20.1%
Married Couples, no own Children less than 18 years old	140,724	28.3%	164,698	26.7%	179,194	25.2%	198,845	25.2%
Single-Parent Households with own Children less than 18 years old	33,057	6.6%	45,894	7.5%	51,323	7.2%	54,861	7.0%
Other Family Households*	21,835	4.4%	28,352	4.6%	38,868	5.5%	49,158	6.2%
Non-Family Households*	176,556	35.5%	237,502	38.6%	290,957	40.9%	327,722	41.5%
Single Person, Male	61,638	12.4%	81,170	13.2%	102,143	14.4%	115,616	14.6%
Single Person, Female	76,900	15.5%	98,429	16.0%	115,020	16.2%	129,083	16.4%
Other Unrelated Person Households	38,018	7.6%	57,903	9.4%	73,794	10.4%	83,023	10.5%
King County Total Households	497,263	100.0%	615,792	100.0%	710,916	100.0%	789,232	100.0%

FAMILY HOUSEHOLDS HOLD STEADY

Family households remain over two-thirds of King County households outside of Seattle.

³ The Census defines families as two or more related persons living in the same household. Non-family households are all other occupied households, and include single persons living alone.

King County Outside Seattle	1990	Pct of all 1990 HH	2000	Pct of all 2000 HH	2010	Pct of all 2010 HH
Family Households	266,861	70.1%	306,559	67.8%	339,820	67.2%
Married with Own Children < 18	107,704	28.4%	118,225	26.1%	121,611	24.0%
Married Without Own Children < 18	111,494	29.4%	126,895	28.0%	143,358	28.3%
Single Parents	30,698	8.1%	37,362	8.3%	40,658	8.0%
Other Families	15,965	4.2%	24,077	5.3%	34,193	6.8%
Non Family Households	113,769	30.0%	145,858	32.2%	165,902	32.8%
Single Person Households					127,645	25.2%
Other non-Family Households					38,257	7.6%
Total KC Households Outside Seattle	379,090	100.0%	452,417	100.0%	505,722	100.0%

SMALL HOUSEHOLDS CONTINUE ((T0)) TO BE THE NORM THROUGHOUT THE COUNTY

As was the case in 2000, one and two-person households represent 64 percent of all County households. One-third of all households, both countywide and in Seattle, are two-person households.

However, over 41 percent of Seattle households are single-person households, while in areas outside of Seattle just 25 percent of the households are single-person households.

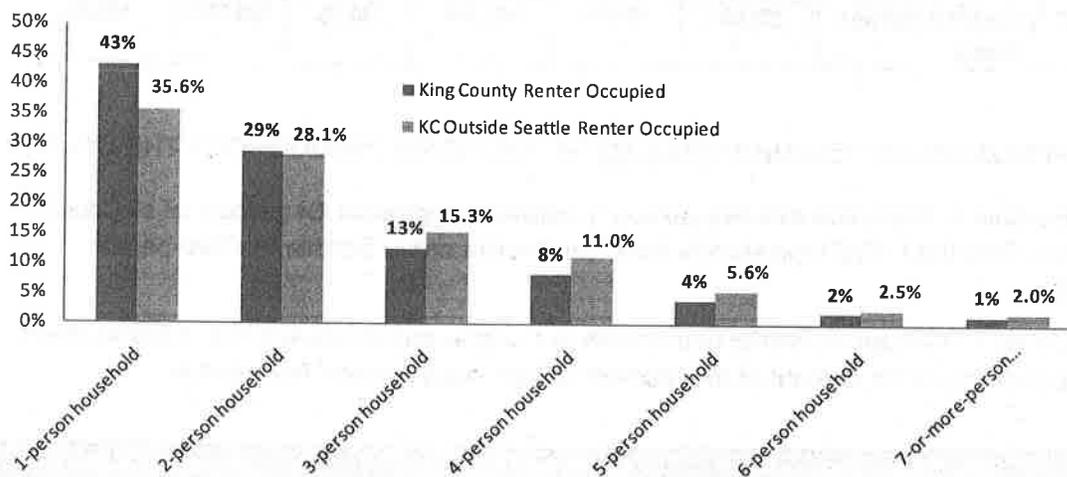
	King County, Washington				Seattle city, Washington				KC Outside Seattle			
	Owner Occupied Units	Renter Occupied Units	Both Renter and Owner	Percent of All Units	Owner Occupied Units	Renter Occupied Units	Both Renter and Owner	Percent of All Units	Owner Occupied Units	Renter Occupied Units	Both Renter and Owner	Percent of All Units
1-person household	105,491	139,208	244,699	31.0%	40,208	76,846	117,054	41.3%	65,283	62,362	127,645	25.2%
2-person household	168,683	92,793	261,476	33.1%	50,877	43,559	94,436	33.3%	117,806	49,234	167,040	33.0%
3-person household	78,579	40,488	119,067	15.1%	20,874	13,597	34,471	12.2%	57,705	26,891	84,596	16.7%
4-person household	72,514	26,723	99,237	12.6%	16,748	7,357	24,105	8.5%	55,766	19,366	75,132	14.9%
5-person household	25,745	12,860	38,605	4.9%	4,861	3,091	7,952	2.8%	20,884	9,769	30,653	6.1%
6-person household	9,352	5,727	15,079	1.9%	1,556	1,415	2,971	1.0%	7,796	4,312	12,108	2.4%
7-or-more-person household	6,354	4,715	11,069	1.4%	1,238	1,283	2,521	0.9%	5,116	3,432	8,548	1.7%
Total:	466,718	322,514	789,232	100.0%	136,362	147,148	283,510	100.0%	330,356	175,366	505,722	100.0%

RENTER HOUSEHOLDS ARE GENERALLY SMALL HOUSEHOLDS

~~((Forty three))~~ 43 percent of renters live in a single person household. Among all King County renter households, 72 percent are one or two person households.

The older we get the more likely we are to live alone, especially if we are renters. ~~((Seventy seven))~~ 77 percent of senior renters live by themselves, while 38 percent of senior homeowners live alone.

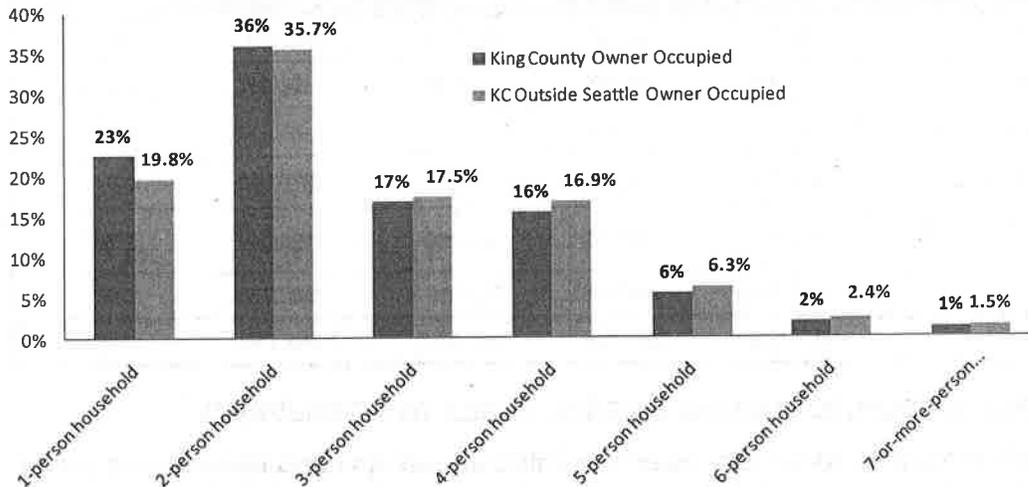
Distribution of Renters by Size of Household: 2010



OWNERSHIP HOUSEHOLDS ARE SLIGHTLY LARGER

~~((Fifty nine))~~ 59 percent of homeowner households are also one or two person households. However, only about 23 percent of homeowners live alone. About 91 percent of all homeowner households in King County consist of four persons or fewer, while ~~((9))~~ nine percent are larger households.

Distribution of Homeowners by Size of Household: 2010



OUTSIDE SEATTLE, 10 PERCENT OF HOUSEHOLDS ARE FIVE OR MORE PERSONS

Although a significant majority of households in areas outside of Seattle are one and two-person households, larger households are not uncommon. ((Forty-four)) 44 percent of all households outside Seattle have three or more persons, while ((40)) ten percent of the households – both renter and owner - have five or more persons.

Among renters, 4.5 percent of households outside Seattle are six - or seven-person households, while among owner households about 3.9 percent have six or seven members.

AVERAGE HOUSEHOLD SIZE

Average household size in King County has remained stable from 1990 through 2010 at approximately 2.4 persons per household. An anticipated decrease in household size has not occurred. Households were smallest in Seattle and Kirkland. The table below shows the pattern of household sizes which tend to be larger in the less urbanized areas to the east and southeast.

Sub-Region	Total Population, 2010	Total Housing Units, 2010	Occupied Housing Units, 2010	Total Population in Households, 2010	Average Persons Per Occupied Housing Unit, 2010
East Urban Region	460,931	199,067	184,305	457,671	2.48
North Urban Region	65,605	28,055	26,585	64,097	2.41
NE Cities and Rural Areas	85,613	32,624	30,719	85,311	2.78
South Urban and Vashon	586,055	235,336	219,531	579,798	2.64
Southeast Cities and Rural Areas	124,385	47,200	44,664	124,011	2.78
Seattle	608,660	308,516	283,510	583,735	2.06
King County	1,931,249	851,261	789,232	1,894,118	2.40

GROWTH RATE OF ELDERLY HOUSEHOLDS IS LIKELY TO ACCELERATE

The movement of older adults into the senior population will rise dramatically during the coming decade. It is likely this aging group of “baby boomers” will add at least 115,000 to the population of seniors living in King County by 2020, and as many as 200,000 by 2025.

Many elderly are living longer. In King County, the population over 85 increased by 38 percent during the 2000 to 2010 decade, following a rise of 44 percent in the 1990s.

Senior households have considerably less income than the average county household. ((Sixty one)) 61 percent of King County households headed by an adult over 65 years of age earned 80 percent of median income or less.

THE PERCENTAGE OF RESIDENTS WITH A DISABILITY MAY GROW AS SENIORS INCREASE

((Thirty four and a half)) 34.5 percent of those over 64 years reported having some type of disability. This is lower than the nearly 36 percent of seniors reporting a disability in 2010. However, as the number and proportion of older seniors grow, the proportion of residents with a disability is likely to increase.

Just under nine percent of residents over the age of 64 had a self-care disability. This percentage has been virtually unchanged since 1990. A self-care disability is a physical, mental or emotional condition, lasting six months or more that causes a person to have difficulty dressing, bathing or getting around the home.

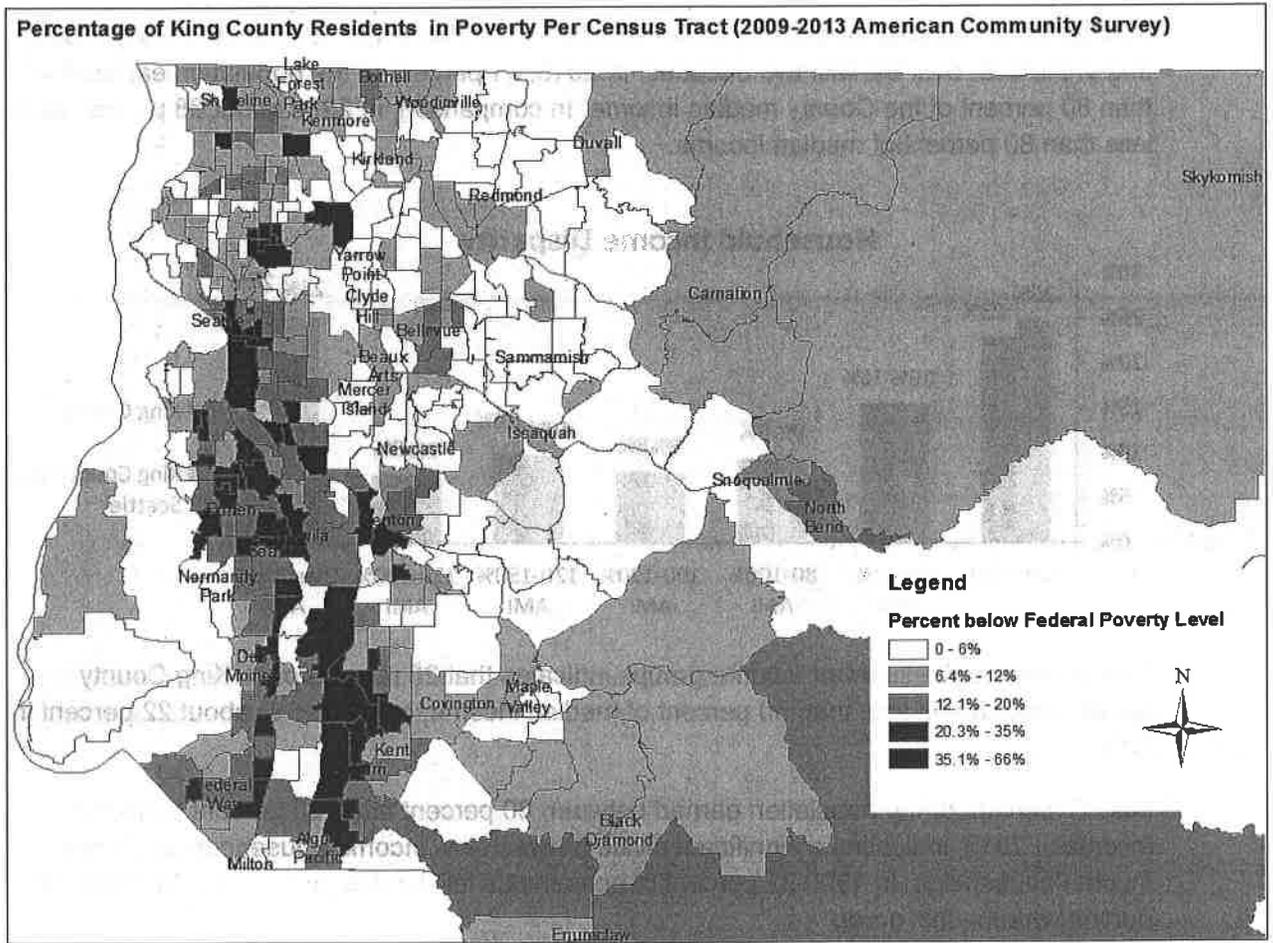
B. Household Income Trends

HUD Area Median Family Income: Median family income calculated by HUD based upon family of four in 2014 was \$86,600.

- 100% AMI=\$86,600
- 80% AMI=\$69,400
- 50% AMI=\$43,400
- 30% AMI=\$26,040

HOUSEHOLDS IN POVERTY HAVE INCREASED COUNTYWIDE

The number of persons in poverty ((increase)) increased from 9.7 percent to 12.4 percent countywide between 2009 and 2014. In 2014, nearly 257,916 persons lived in poverty within King County, up from 186,000 in 2009. ((Thirty-six)) 36 percent of households headed by a single mother with children under five years of age were poor. The map below shows census tracts with high poverty rates.

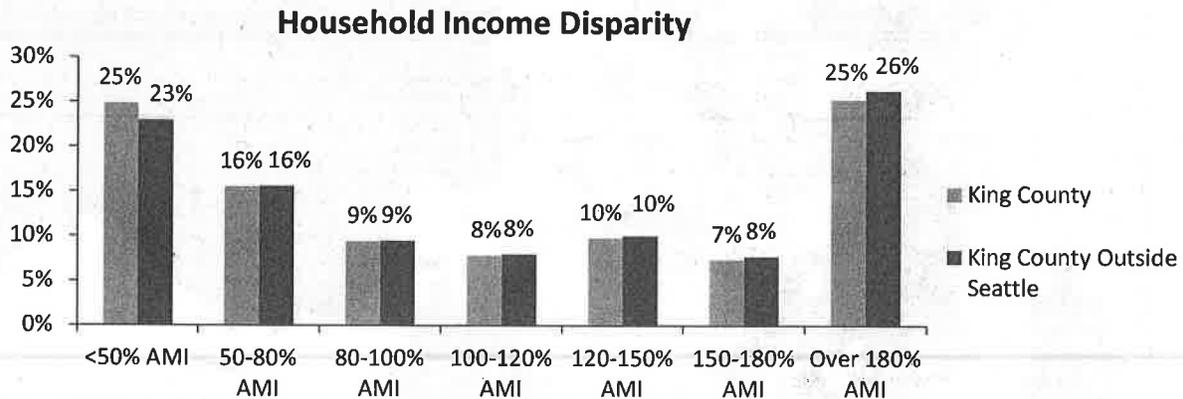


March 27, 2015

Whatever one's household income, living in an area of the County with lower incomes and higher poverty rates((7)) can limit a household's opportunity and raise questions of equity of services. There is often pressure on schools, social services, and governmental services in low-income areas, and less access to well-paying jobs or to frequent public transportation service.

THERE ARE FEWER MIDDLE INCOME HOUSEHOLDS AND MORE HOUSEHOLDS THAT ARE LOW INCOME OR HIGH INCOME

Overall, there has been a "thinning of the middle" in the distribution of income in King County and in the U.S. over the last two decades. In 2013, 41 percent of the population earned less than 80 percent of the County median income. In comparison, in 2000 about 38 percent earned less than 80 percent of median income.



A breakdown of these lower income groups indicates that 25 percent of all King County households earned less than 50 percent of median income, compared to about 22 percent in 2000.

Just 17 percent of the population earned between 80 percent and 120 percent of median income in 2013, indicating a significant divide between low income households and upper income households. In 1990 22 percent of households fell into this group, while in 2000, 20 percent were in this group.

This growing divergence in income is a national trend that has been occurring since the late 1970s.⁴ The common perception that most U.S. households are "middle" (moderate, median, or high median) income does not appear to be the case.

⁴ See Timothy Noah, *The Great Divergence*, Slate (online magazine), November, 2010.

SENIOR HOUSEHOLDS HAVE LOWER INCOMES THAN THE GENERAL POPULATION

In 2013 the median income for all senior households (those headed by a householder 65 years of age or older) was \$43,500. This means that half of all senior households earned that amount or less. This is less than two-thirds of the median income for all households in King County. 41 percent of King County senior households had less than \$35,000 income per year (50 - 60 percent AMI).

- At \$35,000 a household could afford about \$875 per month in total housing costs.
- The 21.5 percent of senior households who earn less than 30 percent of median income (under \$20,500) could afford less than \$512 per month in total housing costs.

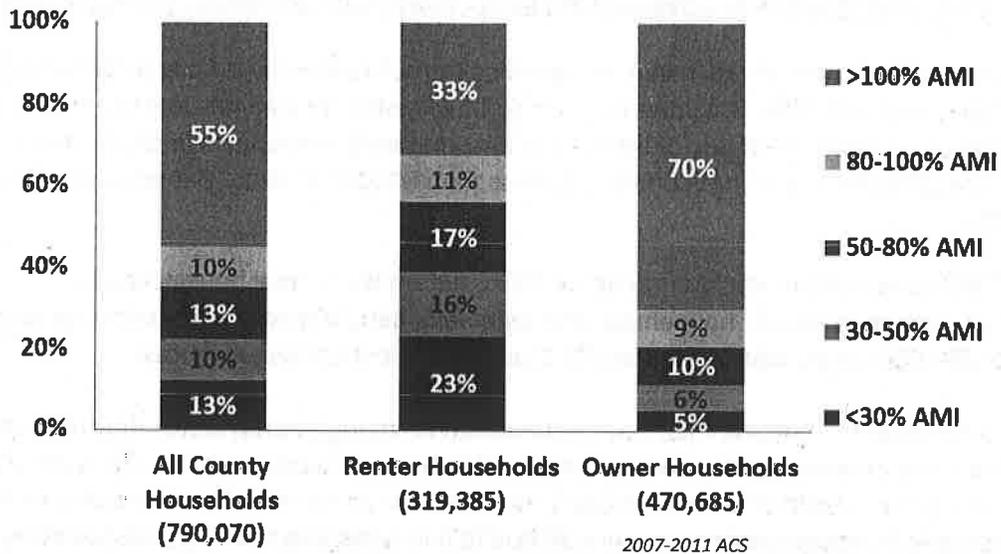
Although some seniors may own their own homes with no mortgage payments, they may still find it difficult to manage property taxes, utilities, and home maintenance costs. They are also likely to have higher health costs than younger households. For those who rent, incomes at or below 50 percent of median income make it difficult to find adequate housing and pay rising health care costs.

THE POPULATION OVER 65 YEARS OF AGE WILL GROW BY UP TO 200,000 PERSONS BY 2030, MORE THAN DOUBLING THE CURRENT NUMBER OF SENIORS

The population of seniors is projected to grow by about 115,000 by 2020 and by another 55,000 to 80,000 by 2025. Assuming that the income distribution remains roughly the same, by 2025 - 2030 there is likely to be an additional 80,000 seniors (about 40 percent of 200,000 new seniors) whose income will make it difficult to meet their housing needs without assistance. This growing segment of the population will also have a significant impact on the type and size of housing that will be needed. Housing units and neighborhoods that are universally-designed and accessible will make it easier for seniors to "age in place" or to find housing that meets their changing needs.

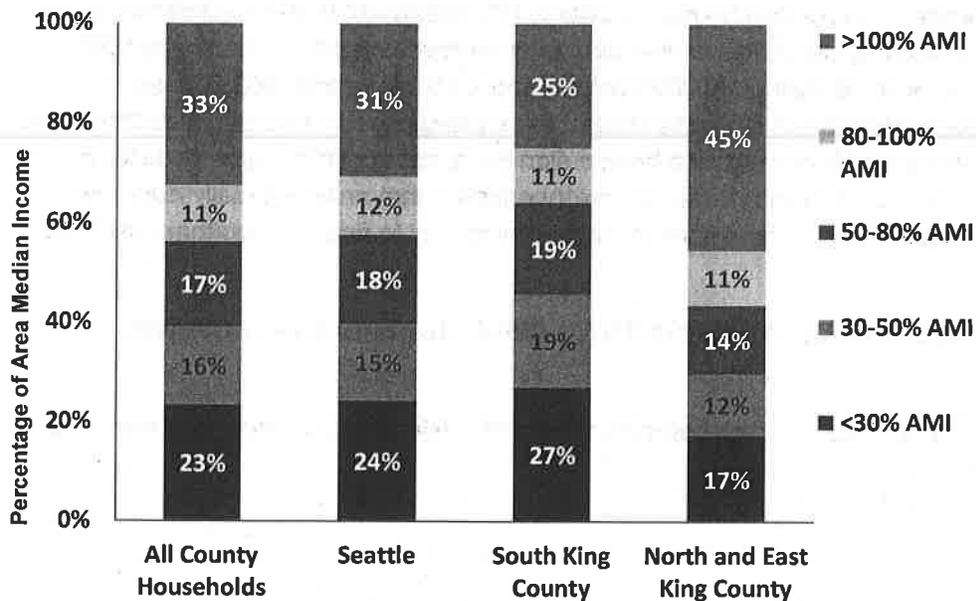
RENTER HOUSEHOLDS HAVE SIGNIFICANTLY LOWER INCOMES THAN OWNER HOUSEHOLDS

About 60 percent of King County households own a home, while about 40 percent are renters according to the 2007 - 2011 ACS data.



As shown in the graph above, households in lower income categories are more likely to rent than own homes.

RENTER HOUSEHOLDS INCOMES



The King County median income was approximately \$86,600 in 2014. Half of all renters make less than 60 percent of the County median income, making it difficult for them to meet their housing expense.

While there are many fewer homeowners in the lowest income categories, 30 percent of those making half of median income or less, do own a home. They constitute about ((8)) eight percent

of all households in the County. Many of these may be senior householders who own their homes but have limited income with which to pay property taxes and home maintenance expenses.

INCOME AND TENURE IN KING COUNTY OUTSIDE SEATTLE

Median income is higher in King County outside of Seattle than in the City of Seattle. Median homeowner income is slightly lower in King County outside of Seattle than in Seattle.

Nearly two-thirds of households in King County outside Seattle are homeowners, and one-third of households are renters. Homeownership outside Seattle is considerably higher than the homeownership rate in Seattle.

In Seattle, renter households are just over half of all households. As with King County as a whole, renters outside of Seattle are more likely to earn less than 80 percent of median income. About 60 percent of those renters earn 80 percent of median income or less. About 40 percent earn less than 50 percent of median income.

IMPLICATIONS OF INCOME TRENDS:

Many King County households still struggle to meet housing costs, particularly if they earn 50 percent of median income or less. There is an insufficient quantity of housing (either rental or ownership) that is affordable to the lower income groups.

The growing disparity between upper income households and lower income households poses particular challenges for the housing market.

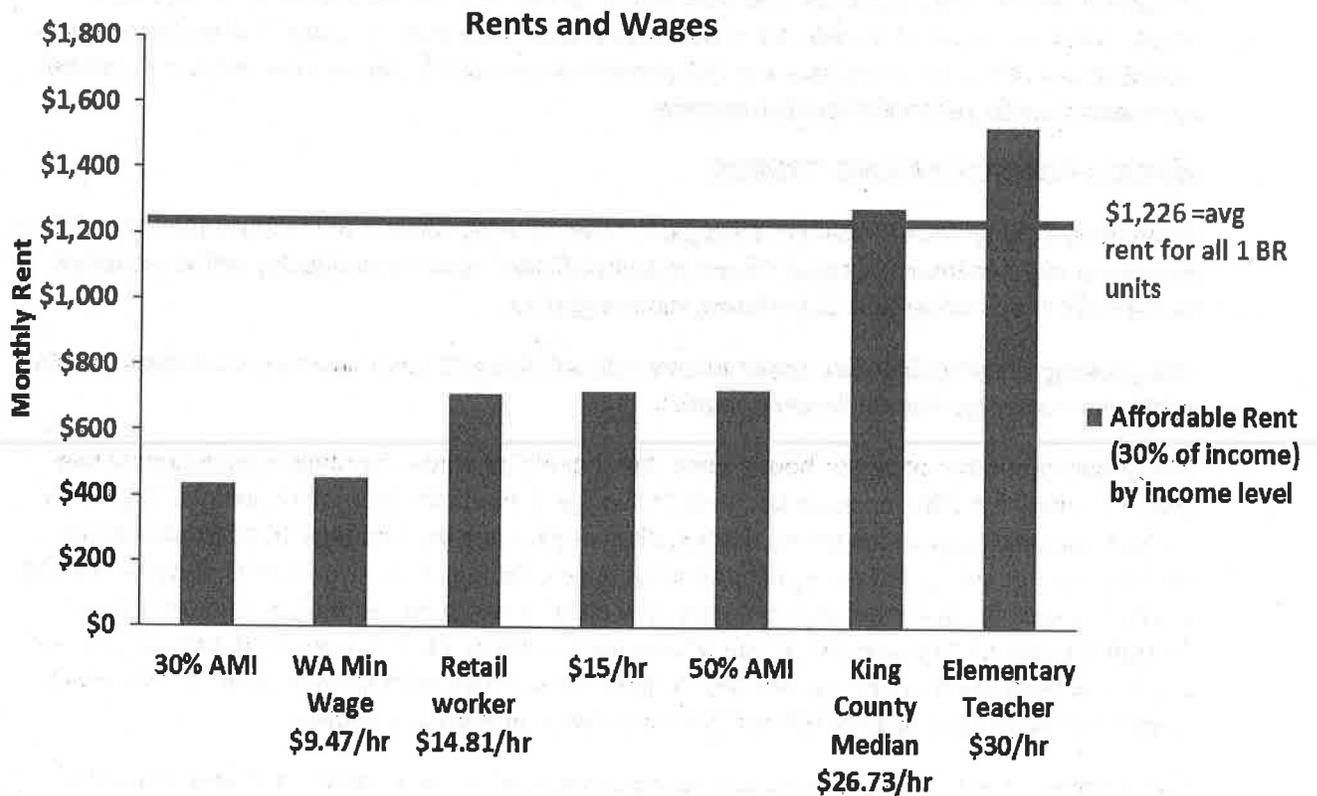
The growing number of senior households, the majority of whom currently have incomes less than 80 percent of AML, poses a daunting challenge. If the distribution of household income for seniors remains roughly the same, there is likely to be a severe shortage of affordable rental housing for that group. Efforts to support seniors remaining in their own homes, such as offering assistance with property tax, maintenance and utility taxes, public and designing homes and neighborhoods for "aging in place," could help take some of the pressure off the rental housing market. Nevertheless, many seniors will continue to need affordable rental units, and they will need convenient access to health and social services and grocery stores.

Since the economy in King County is strong compared to some parts of the country, there is unlikely to be significant out-migration to other regions, and King County is likely to continue to experience growth in immigrants, especially those with technical job skills. Building or rehabilitating sufficient housing with easy access to public transportation and/or close to job centers will help prevent greater pressure on an already over-burdened road system, and help reduce the negative environmental impacts of more cars on the road.

IV. Housing Development Trends

The 1990s was a decade of strong growth in the economy in King County with employment at 1.15 million in 2000. The 1990s were followed by a decade with two recessions. Job growth leveled off, and the employment high in 2008 was barely above the 2000 level. In the last three years, from 2012 to mid-2015, King County has gained 120,000 jobs, or 40,000 added jobs per year, a rate of growth much higher than King County's long-term average.

By 2010, due to the effects of the 2007 – 2009 recessions King County had lost 4.5 percent of the jobs it had in 2000. By 2015, with the economic recovery, jobs in King County have increased to 1.3 million.



From 2000 to 2010, the number of households increased significantly in each of the subregions as demonstrated in the table below.

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

*Data from Census 2000 was aggregated into four larger sub-regions: SeaShore, Eastside, South, and Rural. For rough comparison purposes with 2010, Seashore corresponds to Seattle and the North Urban Region; Eastside and half of the Rural region corresponds to East and Northeast regions, South and half of the Rural region corresponds to South and Southeast Regions. Thus for comparison purposes, the four 2000 sub-regions and the six 2010 sub-regions are each combined into three roughly comparable larger regions, indicated by the shading.

The final column in the table shows the number of jobs per household (or jobs/housing balance) in each of the six subregions for the 2010 Census. For King County as a whole, there were 1.4 jobs per household and 1.3 jobs per housing unit. This is considerably lower than the 1.5 jobs per housing unit in 1990 and the 1.6 jobs per housing unit in 2000.

IMPLICATIONS OF LOCATION TRENDS:

Growth is occurring in urbanized areas, primarily in cities and increasingly often in urban centers. To adequately accommodate this growth, a variety of urban housing types is required. These include single family infill, accessory dwelling units, mixed-use buildings and multi-family construction. Transit-oriented development is an important way to link housing with transit services ((and)) to improve mobility.

Measures to support infill and transit-oriented housing can help ~~((to more efficiently accommodate development))~~ accommodate development more efficiently. Examples of these measures could include mandatory and voluntary requirements, density bonuses, accessory dwelling unit allowances, and micro housing.

V. Characteristics and Use of the Housing Stock

A. Age and Condition of the Housing Stock

HALF OF THE HOUSING STOCK WAS BUILT OVER 45 YEARS AGO

HUD evaluates the condition of housing stock based upon age and four conditions: 1.) Lack of kitchen, 2.) Lack of bathroom, 3.) Overcrowding as defined by more than 1.5 person per room, and 4.) Cost burden. This criterion for assessing the condition of housing may not capture the complete picture of the condition of the housing stock.

Over half of the housing stock in King County was built before 1980, more than 45 years ago. In Seattle, about 70 percent was built prior to 1980.

In areas outside of Seattle, just under half of the housing stock was built before 1980. Houses built in the early suburban building boom from 1950 to 1970 are now ~~((forty to sixty years old))~~ 40-60 years old, and if not well-maintained, may be showing signs of aging and deterioration.

King County	
Total:	790,070
Owner occupied:	470,685
Built 2005 or later	26,531
Built 2000 to 2004	36,464
Built 1990 to 1999	64,415
Built 1980 to 1989	71,116
Built 1970 to 1979	67,438
Built 1960 to 1969	59,929
Built 1950 to 1959	48,909
Built 1940 to 1949	32,050
Built 1939 or earlier	63,833
Renter occupied:	319,385
Built 2005 or later	18,660
Built 2000 to 2004	22,793
Built 1990 to 1999	44,551
Built 1980 to 1989	52,532
Built 1970 to 1979	54,676
Built 1960 to 1969	41,915
Built 1950 to 1959	28,326
Built 1940 to 1949	16,172
Built 1939 or earlier	39,760

The figure to the left lists the age housing stock in King County by decade built. The figure below lists the number of homes with one or more housing problems as defined by HUD.
2007-2011 ACS

King County	
Total:	790,070
Owner occupied:	470,685
With one selected condition	156,725
With two selected conditions	3,034
With three selected conditions	260
With four selected conditions	31
No selected conditions	310,635
Renter occupied:	319,385
With one selected condition	136,956
With two selected conditions	10,887
With three selected conditions	1,161
With four selected conditions	23
No selected conditions	170,358

King County Net of Seattle			
Property Type		Number	% of Total Units
1-unit detached structure		332,818	62%
1-unit, attached structure		22,852	4%
2-4 units		31,486	6%
5-19 units		74,396	14%
20 or more units		61,818	11%
Mobile Home, boat, RV, Vans		16,635	3%
Total		540,005	100%

2007-2011 ACS

B. Utilization of the Housing Stock

OWNERSHIP RATE HAS DECREASED SLIGHTLY SINCE 2005

In King County, the number of households who own their own house or condominium increased from 58.8 percent in 1990 to a high of 61 percent by 2005 and, by the 2010 census, it had fallen to 59.1 percent. For an urban county such as King County, the current homeownership rate is more in line with historic rates. There is considerable fluidity and interaction between the ownership and rental markets.

	Homeownership/Rental Rate in King County		
	King County	Seattle	King County net Seattle
Owner	59%	48%	65%
Renter	41%	52%	35%

Home ownership, at 48 percent in Seattle, is lower than the County rate. This is typical in larger cities, which usually have a higher percentage of renters. In areas outside of Seattle, nearly two-thirds of households ((outside Seattle)) own their own home.

~~((An adequate supply of rental units continues to be important in King County. It is critical to have enough affordable rentals.))~~ An adequate supply of affordable rental units continues to be critically important in King County. Seniors who wish to downsize may sometimes choose rental units rather than maintaining a home with its considerable taxes, insurance, and maintenance costs. The following tables indicate housing stock in the County and the number of bedrooms.

King County Type of Property - Net of Seattle		
Property Type	Number	% of Total Units
1-unit detached structure	332,818	62%
1-unit, attached structure	22,852	4%
2-4 units	31,486	6%
5-19 units	74,396	14%
20 or more units	61,818	11%
Mobile Home, boat, RV, Vas	16,635	3%
Total	540,005	100%

2007-2011 ACS

Number of Bedrooms	Owners		Renters	
	Number	%	Number	%
No bedroom	764	0%	6,438	4%
1 bedroom	7,756	2%	49,512	29%
2 bedrooms	52,459	16%	72,723	42%
3 or more bedrooms	274,128	82%	43,810	25%
Total	335,107	100%	172,483	100%

2007-2011 ACS

LOW ((VACANY)) VACANCY RATE FOR RENTAL UNITS

The tables below show vacancy trends over the past 20 years for rental housing.

Vacancy Rate by Dupre + Scott	1995	2000	2005	2010	2015
King County	4.8%	3.7%	6.7%	4.9%	3.6%

Vacancy Rate by Dupre + Scott	Fall 2015
Total King County	3.9%
North King County	2.5%
Central King County	3.9%
Eastside King County	3.9%
South King County	2.4%
Southeast King County	3.9%

This table shows the vacancy rate for the subregions of King County as defined by Dupre + Scott. These subregions include parts of Seattle in North, Central and South King County.

During the past recession the vacancy rate peaked at 6.8 percent in 2009. An apartment vacancy rate of ((5)) five percent is considered in balance. In the past vacancy rates have often been higher in the South and Southeast sub-regions compared to Seattle. However as of the end of 2015 South King County had the lowest vacancy rate. There are relatively few apartment rentals in that area.

VI. Housing Need and Affordability

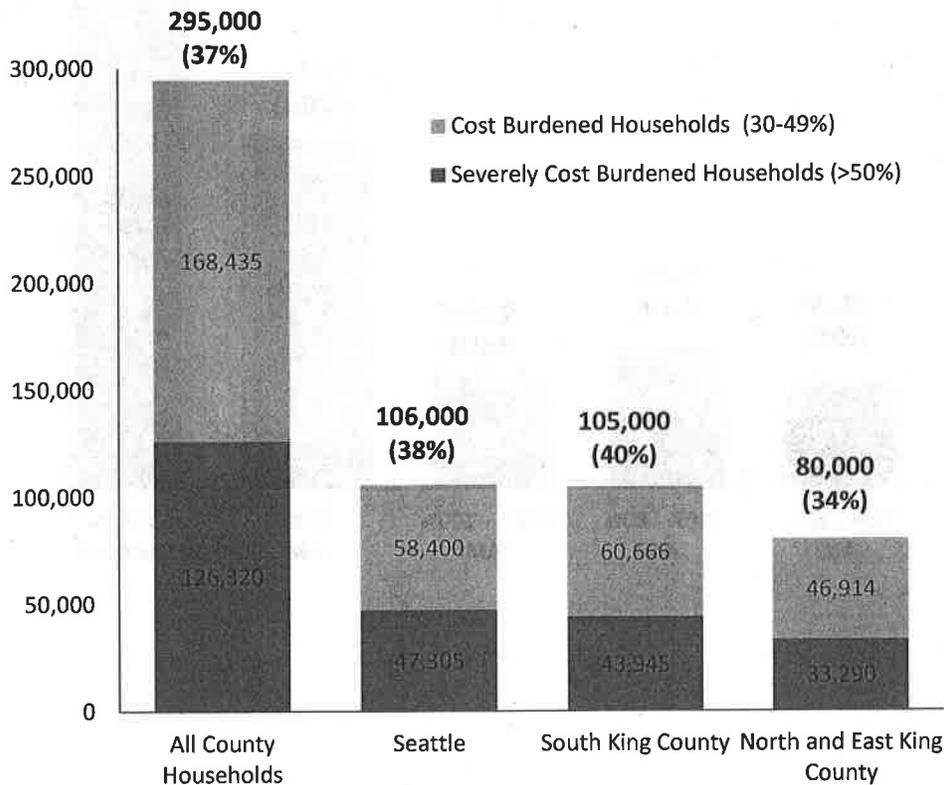
A. Housing Affordability Trends

MANY HOUSEHOLDS PAY MORE THAN 30 PERCENT OF THEIR INCOME FOR HOUSING.

The following figures show the percentage and number of households paying more than 30 percent of their income for housing in King County. The lighter blue shows the number of households who pay more than 30 percent of their income for housing and the deeper blue shows the number of households who pay more than 50 percent of their income for housing. This is referred to as cost burdened and severely cost burdened respectively.

In 1990, just 27 percent of all King County households paid more than 30 percent of their income for housing. By 2013, that had risen to 37 percent or 295,000 households.

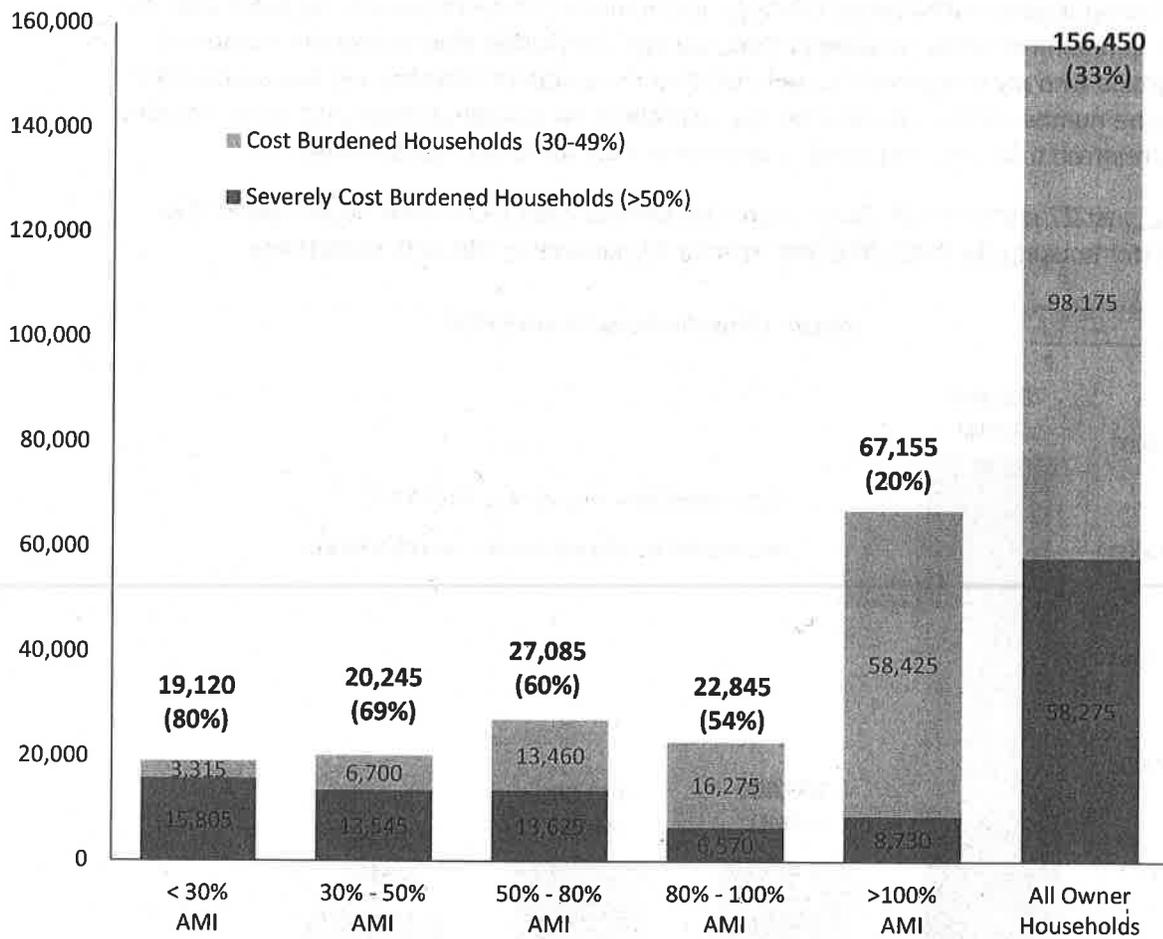
Housing Cost Burdened Households



2007-2011 ACS

Over one-third of homeowners paid more than 30 percent of their income for housing. The graph below shows the percentage of cost burdened and severely cost burdened homeowners across King County grouped by incomes. Households with income below 80 percent of area median experience housing cost burden at a greater percentage than households with income above 80 percent of area median.

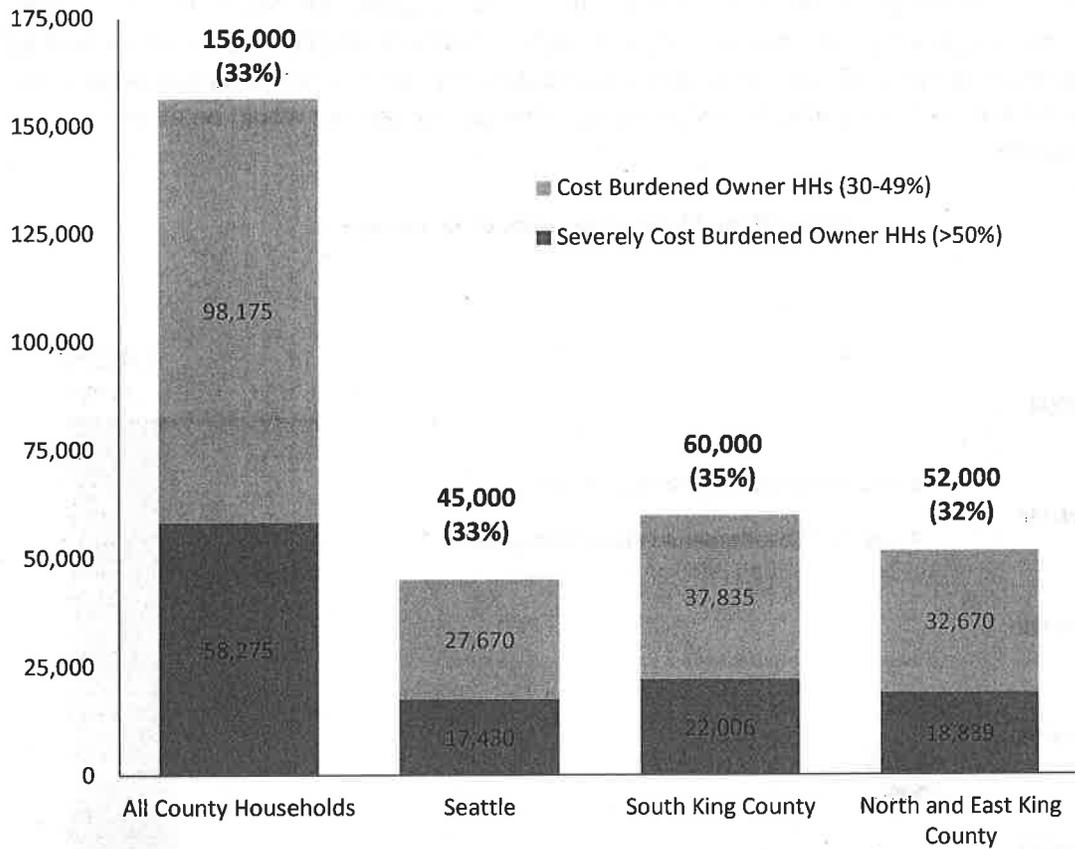
Homeowner Households and Cost Burden



2007-2011 ACS

The following graph shows cost burdened homeowner households by subregion. South King has the highest percentage, at 35 percent, of cost burdened homeowners.

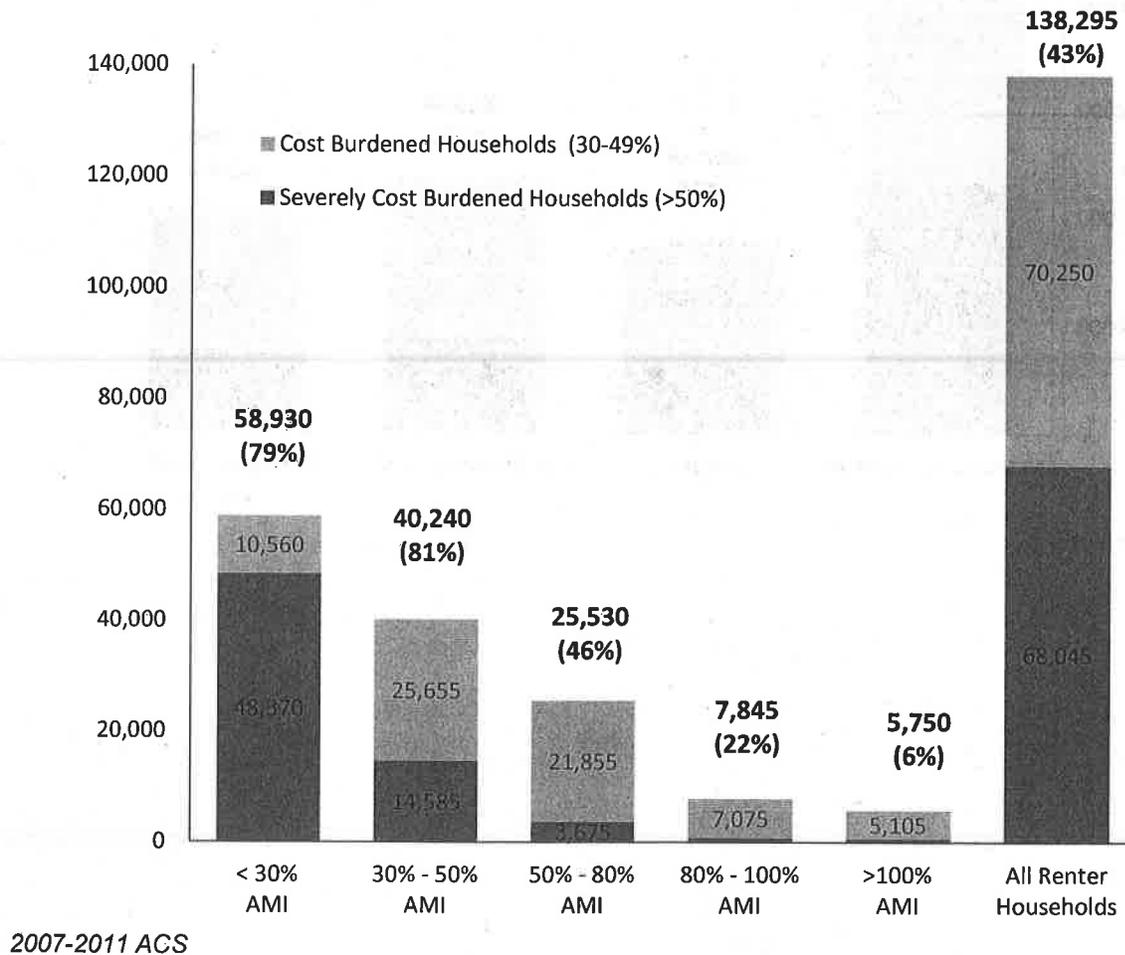
Cost Burdened Homeowners by Subregion



2007-2011 ACS

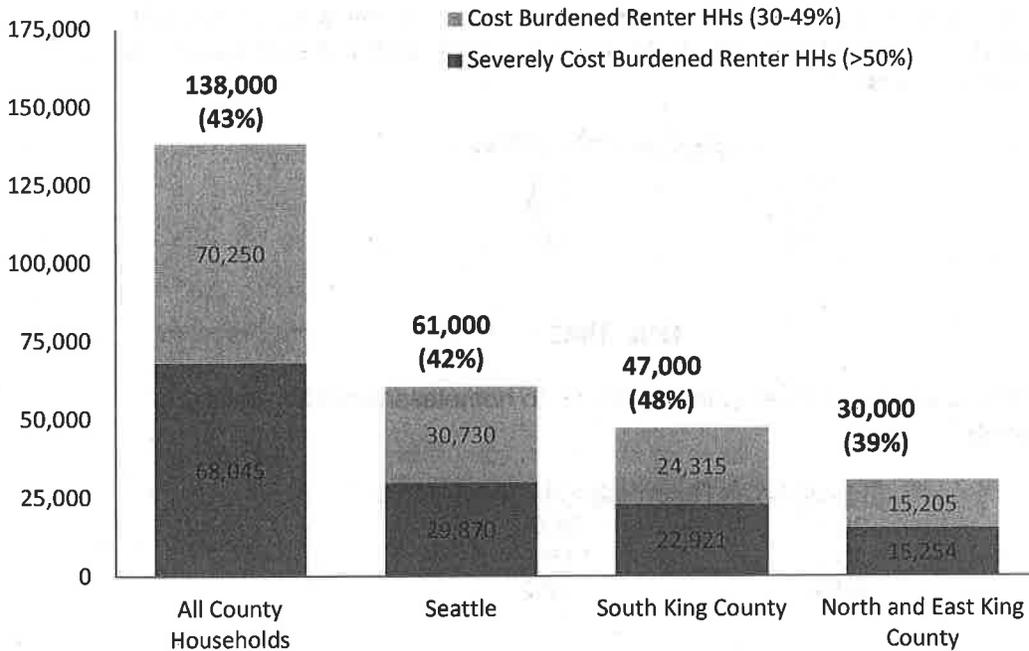
((Forty three)) 43 percent of renter households paid more than 30 percent of their income for housing. The following graph shows the number and percentage of cost burdened and severely cost burdened renter households across King County grouped by income. King County's lowest income households face the greatest risk of housing instability. Nearly 50,000 renter households, with incomes at or below 30 percent of the area median, are severely housing cost burdened. An additional 14,585 households, with incomes between 30 and 50 percent of area median, are severely housing cost burdened. Together, that is almost 65,000 renter households with incomes at or below 50 percent of the area median who are severely cost burdened and unstably housed. With one adverse event, many of these households would be at risk of homelessness.

Cost Burdened Renter Households by Income



The following chart identifies cost burdened renter households by subregion. ~~((As with homeowner households, South King has the highest percentage, at 48 percent, of cost burdened renter households.))~~ South King County has the highest percentage of burdened renter households at 48 percent.

Cost Burdened Renter Households by Subregion



2007-2011 ACS

B. Homelessness in King County

NUMBER OF HOMELESS PERSONS CONTINUES TO RISE, BUT MORE ARE HOUSED

All Home's (formerly the Committee to End Homelessness) vision is that homelessness is rare in King County, racial disparities are eliminated, and if one becomes homeless, it is brief and only a one-time occurrence. All Home adopted a four-year Community Strategic Plan as a recommitment to the vision of ending homelessness and to the steps needed to make this vision a reality. These steps include: 1.) A commitment to creating more affordable housing, 2.) A new focus on prevention, and 3.) An expansion of pre-adjudication and sentencing alternatives.

RARE

On the morning of January 29, 2016, volunteers counted 4,505 men, women and children without shelter. This number represents an increase of ~~((49%))~~ 19 percent over those found without shelter during the 2015 One Night Count. The table below shows the number of homeless households housed during the past four years.

Number of Households Housed

2012	5,883
2013	6,779
2014	7,148
2014	5,072

BRIEF

This is the length of time in an individual or household spends in emergency shelter and transitional housing. The table below shows the average length of time households were in shelters or transitional housing.

Average Number of Days

2013	151
2014	112
2014	130

ONE TIME

This measures the number of households who return to homelessness after exiting to permanent housing.

Households Returning to Homelessness

2013	20%
2014	16%
2014	12%

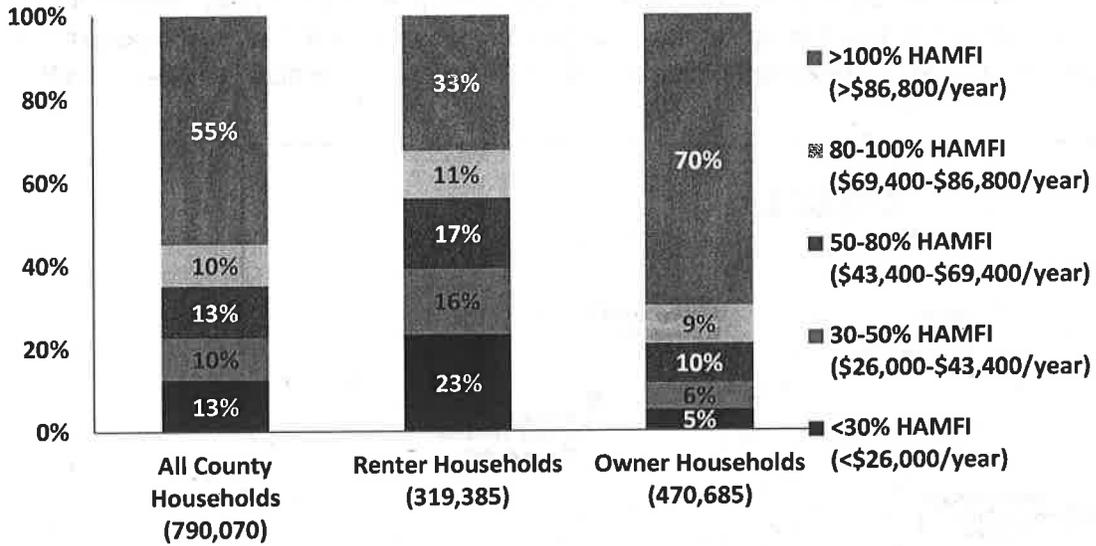
C. Rental Housing Affordability Trends

THE CRITICAL NEED IS FOR AFFORDABLE RENTAL HOUSING FOR VERY LOW AND LOW- INCOME HOUSEHOLDS.

Housing affordable for households with incomes below 50 percent AMI is almost exclusively through subsidized multi-family rental housing, and the amount of that housing is insufficient in nearly all jurisdictions.

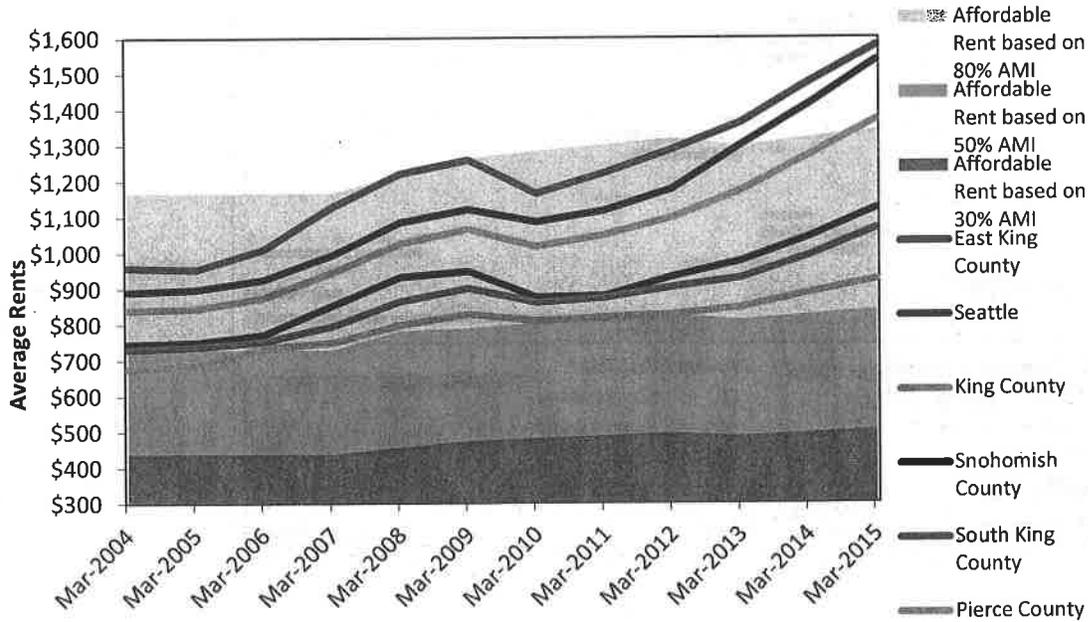
Renter households make up approximately 40 percent of all households in King County. Approximately half of these renter households have incomes at or below 50 percent of area median. The following table identifies the income ranges for renter and homeowner households.

Households by Income and Renter/Ownership Status



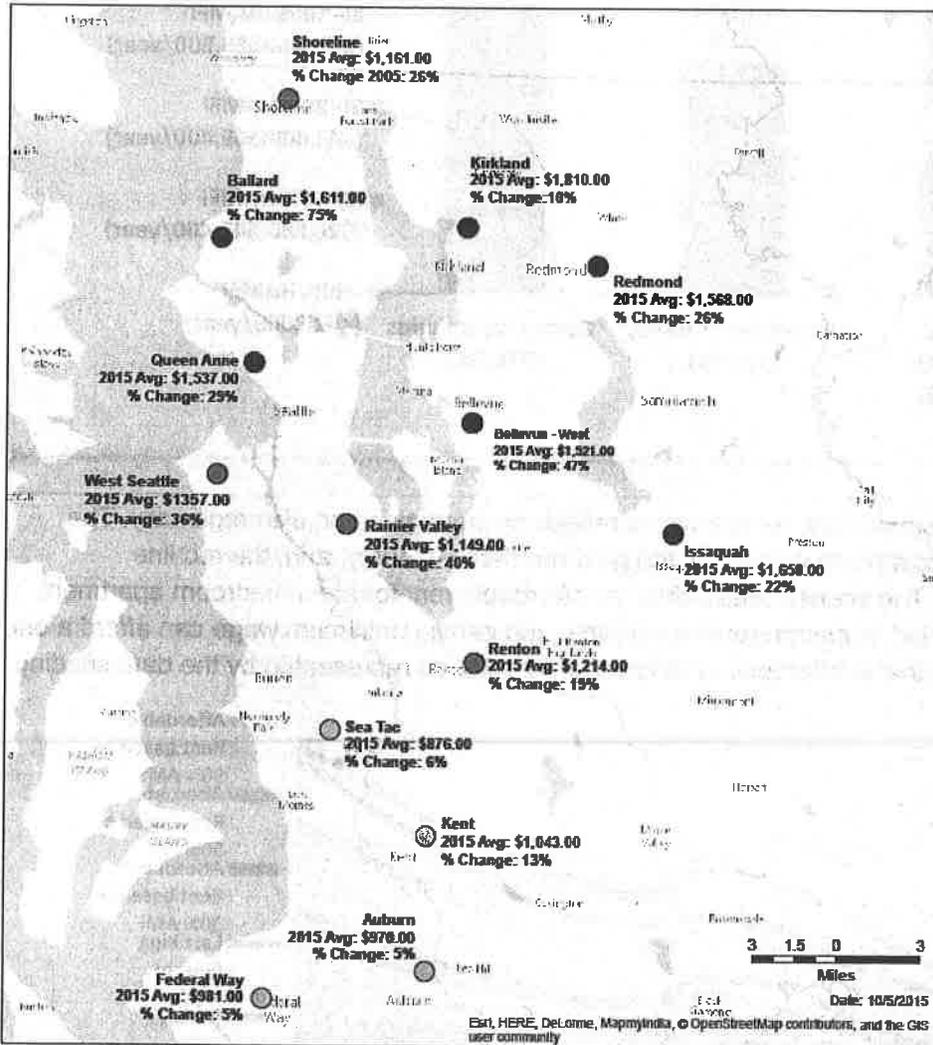
2007-2011 ACS

The following chart shows how rents have increased by subregion and also regionally. The green line represents all of King County; the gold line Piercy County; and, the red line Snohomish County. The shaded areas show an affordable rent for a one bedroom apartment during the same period. A person working full time and earning minimum wage can afford a one bedroom apartment that is affordable at 30 percent of AMI, as represented by the dark shading.



Average Apartment Rent from Dupre & Scott and Affordable Rent based on AMI from HUD.

This following map shows some of the subregional differences within King County. From 2005 to 2015, adjusted for inflation, average rents increases varied by subregion, with a 36 percent increase in West Seattle, a 26 percent increase in Shoreline and a 13 percent increase in Kent.



Percent Change in Average Rent
 Spring 2005 – Spring 2015
(percent changes have been adjusted for inflation)

Average 2015 Rent

- \$876.00 - \$1,099.00
- \$1,100.00 - \$1,399.00
- \$1,400.00+

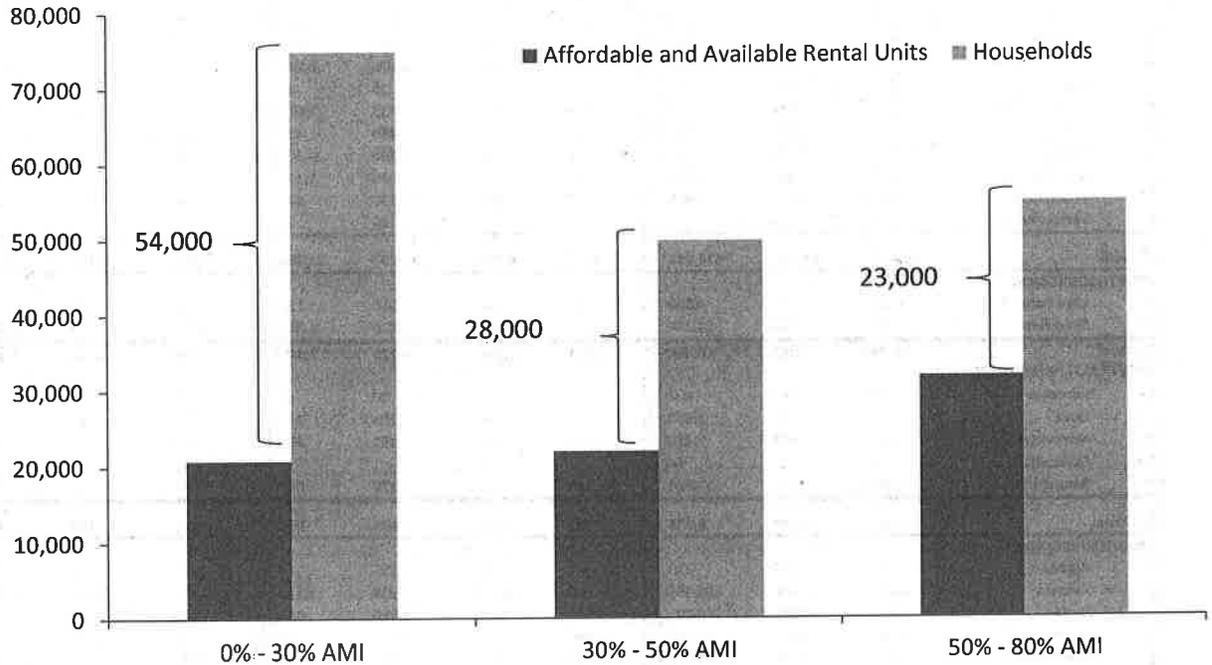


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AFFORDABILITY AND SUPPLY GAP FOR VERY LOW INCOME RENTERS

As the supply and demand graph below shows, there is a gap of about 54,000 between the number of households in this very low income category and the number of rental units affordable to them. The highest need is for housing for the people with very low incomes.



The table on the following page lists the housing stock – both rental and homeownership - by jurisdictions and in unincorporated King County.

HOUSING AFFORDABILITY: 2008-2012 CHAS Data				RENTER: Number of Units by Gross Rent				OWNER: Number of Units by Home Value			
CITY OR CDP	Total housing units	Total Rental Units	Total Homeowner	<30% AMI	31 - 50% AMI	51 - 80% AMI	over 80% AMI	Under 50% AMI	51 - 80% AMI	81 - 100% AMI	Over 100% AMI
EAST SUBREGION											
E Beaux Arts Village	149	14	135	-	-	4	10	-	-	-	135
E Bellevue	52,730	23,155	29,575	1,370	1,130	9,335	11,320	625	730	1,265	26,955
E Bothell (part)	7,060	2,505	4,555	135	258	1,263	850	525	348	528	3,155
E Clyde Hill	956	109	847	10	4	15	80	14	4	4	825
E Hunts Point	185	23	162	-	4	4	15	8	-	-	154
E Issaquah	13,535	5,230	8,305	415	300	1,465	3,050	140	530	815	6,820
E Kenmore	8,059	2,185	5,874	155	380	1,220	430	325	310	529	4,710
E Kirkland (Greater)	38,344	13,389	24,955	740	1,384	5,170	6,095	955	1,215	2,475	20,310
E Medina	1,014	134	880	15	14	15	90	25	10	-	845
E Mercer Island	9,720	2,510	7,210	240	160	455	1,655	95	55	105	6,955
E Newcastle	4,029	1,039	2,990	60	40	489	450	60	135	165	2,630
E Redmond	23,725	11,305	12,420	610	660	3,860	6,175	580	390	765	10,685
E Sammamish	15,399	1,699	13,700	25	24	535	1,115	145	170	360	13,025
E Woodinville	4,799	1,870	2,929	145	220	930	575	54	210	185	2,480
E Yarrow Point	433	59	374	-	4	30	25	4	-	-	370
E Total	180,137	65,226	114,911	3,920	4,582	24,790	31,935	3,555	4,107	7,196	100,054
NORTH SUBREGION											
N Lake Forest Park	5,200	870	4,330	60	145	515	150	70	135	330	3,795
N Shoreline	21,649	7,395	14,254	875	1,420	3,710	1,390	405	1,129	2,060	10,660
N Total	26,849	8,265	18,584	935	1,565	4,225	1,540	475	1,264	2,390	14,455
NORTHEAST SUBREGION											
NE Carnation	765	163	602	4	40	90	29	59	49	95	399
NE Duvall	2,178	320	1,858	-	30	155	135	150	25	219	1,464
NE North Bend	2,430	975	1,455	125	170	390	290	95	45	120	1,195
NE Skykomish	66	12	54	-	12	-	-	12	14	18	10
NE Snoqualmie	3,518	714	2,804	80	19	170	445	65	90	109	2,540
NE Total	8,957	2,184	6,773	209	271	805	899	381	223	561	5,608
SOUTH SUBREGION											
S Algona	995	222	773	4	89	125	4	150	310	199	114
S Auburn	27,869	11,304	16,565	985	4,070	4,935	1,314	3,485	3,060	3,700	6,320
S Burien	16,867	8,065	8,802	970	2,670	3,570	855	574	1,715	1,879	4,634
S Des Moines	11,823	4,435	7,388	585	1,370	1,910	570	660	1,560	1,984	3,184
S Federal Way	35,105	15,635	19,470	1,035	4,730	8,305	1,565	2,670	4,865	4,825	7,110
S Kent	40,289	18,865	21,424	1,425	5,895	9,580	1,965	2,275	4,140	5,874	9,135
S Milton	3,064	1,345	1,719	65	65	845	370	125	335	470	789
S Normandy Park	2,759	735	2,024	105	325	180	125	69	10	60	1,885
S Pacific	2,453	1,265	1,188	100	485	635	45	139	439	295	315
S Renton	37,694	17,190	20,504	1,530	3,430	8,700	3,530	1,805	3,110	4,334	11,255
S SeaTac	10,430	4,825	5,605	390	1,720	2,320	395	945	1,390	1,575	1,695
S Tukwila	7,579	4,695	2,884	215	1,390	2,670	420	284	700	810	1,090
S Total	196,927	88,581	108,346	7,409	26,239	43,775	11,158	13,181	21,634	26,005	47,526
SOUTHEAST SUBREGION											
SE Black Diamond	1,635	105	1,530	10	85	10	-	160	115	385	870
SE Covington	5,890	995	4,895	45	60	780	110	310	900	1,330	2,355
SE Enumclaw	4,415	1,615	2,800	235	625	570	185	505	520	925	850
SE Maple Valley	8,078	1,364	6,714	185	174	580	425	190	799	1,715	4,010
SE Total	20,018	4,079	15,939	475	944	1,940	720	1,165	2,334	4,355	8,085
SEATTLE SUBREGION											
SEA Seattle	294,470	156,245	138,225	18,175	29,740	63,605	44,725	3,255	4,395	9,455	121,120
SEA Total	294,470	156,245	138,225	18,175	29,740	63,605	44,725	3,255	4,395	9,455	121,120
Total UKC CDPs	122,003	17,081	104,922	1,829	3,773	7,809	3,670	5,668	14,007	19,553	65,694
Grand Total	849,361	341,661	507,700	32,952	67,114	146,949	94,647	27,680	47,964	69,515	362,542

PUBLICLY-ASSISTED UNITS PROVIDE SOME AFFORDABILITY FOR VERY LOW INCOME.

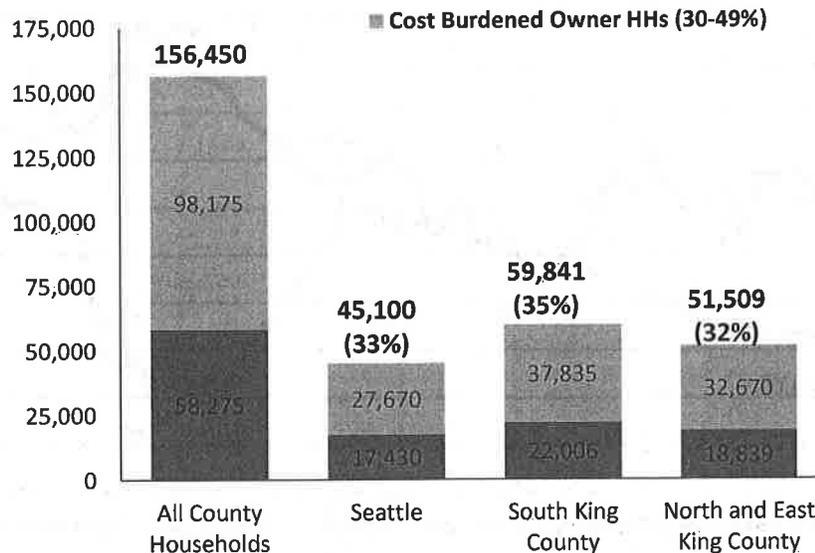
There is a gap between the number of affordable rental units available and the number of low-income households, particularly for households with incomes under ~~((fifty))~~ 50 percent of area median. In 2014 in King County there were approximately 58,000 publically assisted units at 949 sites. In addition to the King County Housing Finance Program, this included affordable projects funded by the Washington State Housing Finance Commission, Washington State Department of Commerce, the King County Housing Authority, the Seattle Housing Authority, the Renton Housing Authority, the City of Seattle and ARCH. ~~((A map of publically assisted housing projects in King County is available at the following link.~~

<http://tabsoft.co/1So5mCo>)

D. Housing Ownership Affordability Trends

OWNERSHIP HOUSING SCARCE FOR LOW, MODERATE AND MEDIAN INCOME HOUSEHOLDS

Based upon HUD 2008-2012 CHAS data on reported home values, 5.4 percent of all owner-occupied homes including condominiums would be affordable to households earning ~~((fifty))~~ 50 percent of median income in 2012. ~~((Fifteen))~~ 15 percent of homes in King County would be affordable to households earning 80 percent of area median income. ~~((Twenty-nine))~~ 29 percent of homes in King County would be affordable to households earning 100 percent of area median income. The following table shows the number and percentage of homeowners in King County who pay more than 30~~((%))~~ percent and 50~~((%))~~ percent of their income for housing.



FIFTEEN PERCENT OF COUNTY HOMES ARE AFFORDABLE AT 80 PERCENT AMI

There is a clear differential in home affordability among the subregions. The south subregion has the highest percentage of homes affordable to households with incomes at or below ((80%)) 80 percent of AMI and. Seattle has the lowest percentage of homes affordable to households with incomes at or below ((80%)) 80 percent of AMI. The North Urban subregion and Unincorporated King County fall somewhere in the middle of the other subregions.

The table below lists median sale prices for King County homes over the past ten years.

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
\$425,000	\$455,000	\$429,950	\$380,000	\$375,000	\$340,000	\$365,000	\$415,000	\$440,000	\$480,000

From 2006 to 2014 home sales prices increased 13 percent. From 2014 to 2015 home sales prices increased 14 percent. Inventories are low and buyers are engaging in bidding competitions to purchase homes.

The graph below show how home prices have changed since 1994 through 2013 in relation to the affordability index. The affordability index signifies the buying power for a family earning the median income. An index of 100 signifies that a family has enough income to qualify for a mortgage loan on a median priced home.

King County Median Home Sale Price and Affordability Index (1994-2013)



It is notable that while home prices tripled in current (or nominal) dollars in the 1970s and doubled in the 1980s, the increase from 1990 to 2000 and from 2000 to 2010 was somewhat slower - at around 61 percent. Over the long term, however, home prices continue to rise faster than the general rate of inflation.

CONDOS PROVIDE MORE AFFORDABLE OWNERSHIP THAN SINGLE FAMILY HOMES

In 2015 the median condo price (\$260,000) was over half of the median price of a single family home (\$480,000). As with single family homes, more condominiums are affordable in the South.

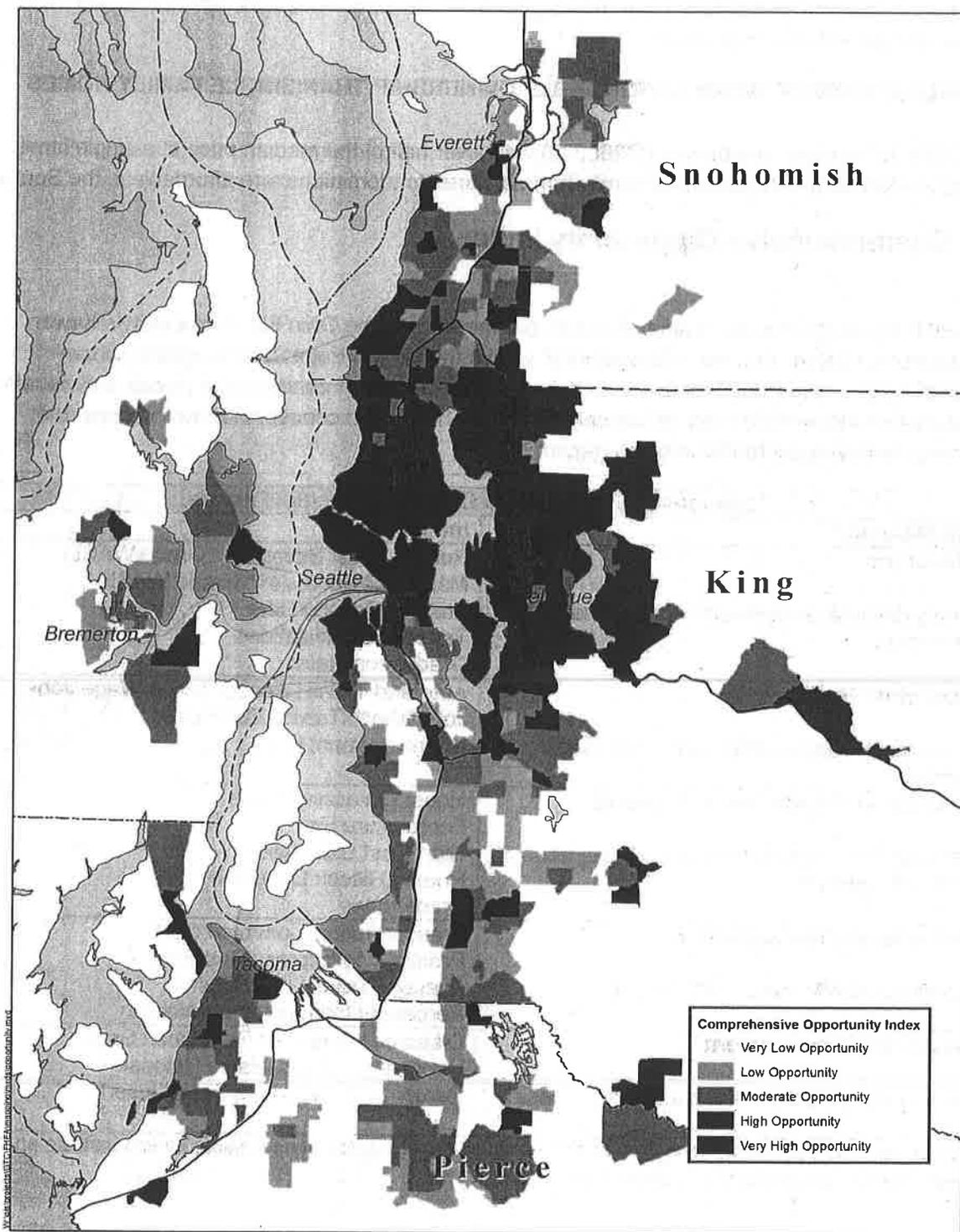
E. Comprehensive Opportunity Index

In 2012 the Puget Sound Regional Council partnered with the Ohio State University’s Kirwan Institute to analyze “Access to Opportunity” within the central Puget Sound regions’ urban growth area. Access to Opportunity is defined as a situation or condition that places individuals in a position to be more likely to succeed or excel. This broad concept is shown in maps that portray relative opportunity across a region.

Comprehensive Access to Opportunity Index Factors	
Sub-Measure	Indicators
Education Quality of local schools and educational resources	Reading Test Scores (4 th Grade WASL) Math Test Scores (4 th Grade WASL) Student Poverty Rate Teacher Qualifications Graduation Rates
Economic Health Proximity to, and participation in, the labor market	Auto and Transit Access Living Wage Jobs Job Growth Trends 2000-2010 Unemployment Rate
Housing and Neighborhood Quality The health of neighborhoods and their housing stock and market	Housing Vacancy Rate Foreclosure Rate High Cost Loan Rate Housing Stock Condition Crime Index
Mobility and Transportation Resident mobility by different modes	Transportation Commute Cost Proximity to Express Bus Stops Average Transit Fare Cost Percent of Commutes by Walking
Health and Environment Proximity to healthy open space and access to food	Distance to Nearest Park/Open Space Proximity to Toxic Waste Release Percent of Area with a Food Desert

Source: Equity, Opportunity, and Sustainability in the Central Puget Sound Region; Kirwan Institute and Puget Sound Regional Council Report May 2012

Comprehensive Opportunity Index



F. Resources for Affordable Housing

RESOURCES AVAILABLE TO ADDRESS THE GOALS OF THE KING COUNTY CONSORTIUM CONSOLIDATED PLAN

King County prepares the Consolidated Plan on behalf of the King County Consortium, a special partnership between King County and most of the suburban cities and towns. King County partners with its suburban cities and towns for the allocation of federal Community Development Block Grant (CDBG), HOME Investment Partnership Program (HOME), and Emergency Solutions Grant (ESG) funds, as well as for certain local funds. The CDBG Consortium is comprised of most cities and towns in King County, plus the unincorporated areas of the County. It excludes Seattle, Bellevue, Kent, Auburn and Federal Way, which receive CDBG funds directly from the federal government. For the HOME Consortium, all members of the King County CDBG Consortium participate, plus all the cities above that receive their own CDBG except Seattle, which is large enough to receive its own HOME grant directly from HUD. The ESG Consortium includes all CDBG Consortium jurisdictions. See the adopted King County Consortium Consolidated Plan on the Department of Community and Human Services/Housing and Community Development Program web page as noted below.

http://www.kingcounty.gov/socialservices/Housing/PlansAndReports/HCD_Plans/ConsolidatedPlan.aspx

King County partners with all cities, including Seattle, for the allocation of a number of other local fund sources: 1) Regional Affordable Housing Program (RAHP) capital funds and operations/maintenance funds; 2) Veterans and Human Services Levy Capital funds; and 3) 2331 Homeless Housing Act document recording fee funds.

Goals and objectives in King County Consortium's Consolidated Plan for 2015-2019 are:

- Goal 1 Ensure decent affordable housing;
- Goal 2 End homelessness;
- Goal 3 Establish and maintain a suitable living environment and economic opportunities for low and moderate-income persons.

FORMULA GRANT PROGRAMS

The Consortium receives three federal entitlement grants on an annual basis: 1.) CDBG in the approximate annual amount of \$4,500,000; 2.) HOME in the approximate annual amount of \$2,700,000; and 3.) ESG in the approximate annual amount of \$300,000. Other federal, state, and local funds are listed below in approximate amounts. All of these resources come with restrictions and regulatory requirements regarding allowed uses. Other leveraged funds such as Low Income Housing Tax Credits (LIHTC) and Continuum of Care funds, are secured through competitive applications and are not guaranteed. Some of these funds, such as the Regional Affordable Housing Program provide leverage for federal dollars to fulfill match requirements.

KING COUNTY AFFORDABLE HOUSING

King County faces unprecedented affordable housing challenges. Amidst tremendous economic and population growth, many in our community are struggling to meet their basic housing needs. Nearly 59,000 low income households are paying over half of their income towards their housing costs. These families and individuals are often one setback away from homelessness. There are already over 4,505 homeless individuals living outdoors on any given night in King County. Add to these the projected population growth, increased housing costs and the desire for affordable housing near transit and the need for an affordable housing strategy for King County is clear.

AFFORDABLE HOUSING EFFORTS

Jurisdictions including King County support a wide range of mandatory and incentive programs to support housing affordability. King County provides impact fee waivers and density bonuses for affordable housing development. In addition, surplus property and master planned development provisions of the King County Code provide further support for housing affordability.

King County and its jurisdictions continue to work with a variety of partners on a number of initiatives including fair housing access, transit oriented development, zoning provisions, innovative housing models, group homes for residents receiving supportive services, preservation of affordable housing, and efforts to expand capital and operating funding for affordable housing, including housing for older adults, people who are homeless, and people with behavioral health, cognitive, physical and developmental disabilities.

VII. Planning for Future Growth

Housing Capacity Trends

KING COUNTY HOUSEHOLD GROWTH TARGETS

The Washington State Growth Management Act (GMA) requires counties and cities to work together to plan for growth. In King County, the Growth Management Planning Council ((GMCP))GMPC is the countywide planning body through which the County and cities collaborate. The GMPC develops and recommends Countywide Planning Policies (CPPs) to the King County Council where they are reviewed, adopted and sent to the cities for ratification.

The CPPs identify housing and job targets, as specified in VISION 2040, adopted by the Puget Sound Regional council in 2008. The allocation of growth, consistent with VISION 2040, focuses on the two Metropolitan cities (Seattle and Bellevue), Core cities with designated Urban Centers, and Larger cities.

The housing growth targets for the period 2006-2031, called for King County's jurisdictions to accommodate 233,077 new households within the Urban Growth Area through 2031. King County has land capacity to accommodate, more than double the housing target. Although permits for new housing units dipped dramatically in 2009, King County is on track to meet the 22 year target.

MULTIFAMILY DEVELOPMENT IS GROWING FASTER THAN SINGLE FAMILY

According to Washington State Office of Financial Management, King County has created nearly 42,024 housing units between 2010 and 2015, and 30,406 of those were multifamily units. Mobile homes declined by 243 units during the same period.

Of the more than 100,000 net new units built between 2000 and 2010, the majority (59 percent) were in multifamily structures. In all of King County, from 2000 to 2010, there has been about a 10 percent increase in the number of single-family structures and a 23 percent increase in multifamily structures. Seattle shows a higher percent of multifamily units than single family units.

LAND CAPACITY IS ADEQUATE FOR FUTURE GROWTH

The housing growth targets in the CPPs for the period 2006-2031, called for King County's jurisdictions to accommodate 233,077 new households within the Urban Growth Area through 2031. King County has land capacity to accommodate, more than double the housing target. Although permits for new housing units dipped dramatically in 2009, King County is on track to meet the 22 year target.

ADEQUATE CAPACITY EXISTS FOR AFFORDABLE HOUSING DEVELOPMENT

Affordable housing can be created through a variety of housing types, however some types such as multi-family (apartments, townhouses, condominium), micro-housing, group homes and accessory dwelling units will provide the bulk of housing affordable to very-low, low and moderate income households.

The CPPs indicate that jurisdictions should plan for approximately 24 percent of its projected net household growth to be new or rehabilitated and preserved housing units which are affordable to those earning 50 percent AMI or below (low income households). It should plan for an additional 16 percent of its new or rehabilitated and preserved units to be affordable to those earning from 50 – 80 percent AMI (moderate income households). Capacity in multi-family and mixed-use zones will provide the bulk of capacity for housing development affordable to low-income households.

Given the large proportion of the multifamily capacity located in mixed use zones within each subarea in King County, particular care should be taken to support housing development in mixed use zones. This can be supported through efforts such as transit-oriented development and innovative housing solutions.

VIII. Conclusions

The following key conclusions indicate trends that have begun or accelerated during the past decade. These demographic, economic, and housing trends are, in most cases, likely to continue, and they suggest the housing policies and strategies that will be most critical and effective in providing appropriate and affordable housing choices.

- The County is growing at a healthy rate, and will be challenged to provide an adequate supply and variety of housing choices that are in close proximity to high capacity transit and job centers.
- The percent of the population who are persons of color has increased from 10.2 percent in 1990 to 35.2 percent in 2010. The rapidity and size of this change is exceptional. Youth of color make up 47.3 percent of those 18 years of age or less. Housing for youth and young adults is a priority.
- King County is likely to continue to attract and retain young and middle-aged adults because of a positive economic outlook and strong technology sector.
- A big change will be the rapid increase in senior households with about 200,000 “baby boomer” adults – 50 to 64 years of age in 2010 - becoming seniors by 2025. About half of current seniors live alone, and most of the remaining seniors live in two-person households. The majority of seniors earn less than 80 percent AMI. Many would like to remain in their own homes as they age, but they may need both financial and physical support to do so. Those who choose to move are likely to need small, accessible housing units in pedestrian-friendly neighborhoods with amenities, services and good mobility.
- There is a growing divide between upper income households and lower income households, with only about 18 percent of all King County households falling into the “middle” income groups of 80 percent to 120 percent of median income. This growing income disparity is a cause for concern.
- The Comprehensive Opportunity Index paints a picture of two King ~~((County))~~ Counties depending on where people live, and such a lack of equity throughout our region puts us at a disadvantage to grow our economy for the benefit of all of our residents, unless we take affirmative action and begin to close the gap on such inequities.
- The most critical housing shortage is for households at or below 30 percent of median income. Even with publicly-assisted units included, there are about 55,000 more renter households in this income category than there are affordable rental units.

- The need for housing affordable to households earning between 30 and 50 percent AMI is also acute, even when subsidized units are included. Depending on the geographic area, households at 50 – 80 percent AMI may also have difficulty finding affordable units.
- Homelessness increased in King County, although more people who were formerly homeless are housed.
- Federal and state resources for housing have decreased in recent years, while the need for affordable housing has increased.
- There is adequate capacity in King County for a full range of housing types that will serve the housing needs of all segments of the community. The challenge is in assisting the development of this capacity. King County will continue to exert direct and indirect efforts guided by the CPPs, the Comprehensive Plan and the Consolidated Plan to achieve housing goals.



2016
King County Comprehensive Plan Update
Technical Appendix C
Transportation

Contents:

- I. Requirements of the Transportation Element
- II. Arterial Functional Classification
- III. Transportation Inventory
- IV. Travel Forecast Summary
- V. Transportation Needs Report (separate document)

King County, Department of Transportation, Road Services Division
201 South Jackson Street, KSC TR 0317; Seattle, WA 98104
<http://www.kingcounty.gov>

I. Requirements of the Transportation Element

Specific requirements for the transportation element are found at RCW 36.70A.070(6)(a). The transportation element of the King County Comprehensive Plan (the Plan) meets those requirements as follows:

- **Land Use Assumptions** – The transportation element is based on the same population and employment growth targets provided in Chapter (~~Two~~) 2 of the Plan.
- **Estimated Traffic Impacts to State-Owned Facilities** –The travel forecast in Technical Appendix C uses the Puget Sound Regional Council Travel Model, which incorporates state owned facilities.
- **An Inventory of Transportation Facilities and Services** – The inventory is provided in Appendix C. As required by growth management legislation, it includes air, water, and ground transportation facilities and services as well as transit alignments and general aviation airport facilities. It includes both county-owned and state-owned transportation facilities within the county's boundaries.
- **Level of Service Standards Including Standards for State Routes** – King County has adopted urban and rural area level of service standards for its Transportation Concurrency Management Program.
- **Actions to Bring Facilities into Compliance** – King County's Transportation Needs Report is adopted by reference along with the Plan. In addition, the Roads Capital Improvements Program, guided by the Strategic Plan for Road Services, identifies specific projects, strategies, and actions to address transportation needs.
- **Traffic Forecasts for at Least Ten Years** – Travel forecasts were developed using the Puget Sound Regional Council's Travel Model with a 2031 horizon year. These travel forecasts were used to analyze state and county transportation facilities.
- **State and Local Transportation Needs to Meet Current and Future Demands** – The King County Road Services Division Transportation Needs Report identifies local system needs, the Strategic Plan prioritizes these needs, and the Capital Improvement Program funds and implements projects. State and local transportation needs are included in the Puget Sound Regional Council travel demand forecasts provided in Technical Appendix C. These elements of the Plan address the Growth Management Act requirement of identifying state and local system needs to meet current and future demand.
- **Analysis of Funding Capability** – A financial analysis is included in the Transportation Needs Report, which is adopted as an element of the Plan in Appendix C1. More information on the financial analysis and supporting policies is provided in Chapter 8, Section IV. of the Plan.
- **Intergovernmental Coordination** – Road Services Division contacted adjacent cities, counties, and transit agencies to coordinate between local transportation systems. King County Road Services' use of the Puget Sound Regional Council Travel Model means the inclusion of regional capacity projects identified in Transportation 2040, a key input in the travel demand analysis. Chapter 8, Section V. contains a discussion of additional intergovernmental coordination efforts by King County.
- **Transportation Demand Management** – King County includes demand management strategies in its policies, codes and project implementation as well as providing support for others through its transit, rideshare, and market strategies. Chapter 8, Section II.K. of the Plan and the transportation inventory in Technical Appendix C contain more information on TDM-related efforts by King County.

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- **Nonmotorized Transportation** – King County’s pedestrian and bicycle component includes collaborative efforts to identify and designate planned improvements for pedestrian and bicycle facilities and corridors that address and encourage enhanced community access and promote healthy lifestyles. See Chapter 8, ~~((-))~~ Section II.J. of the Plan. King County’s Transportation Needs Report includes the road-related non-motorized capital facility’s needs, and the Regional Trails Needs Report located in ~~((Chapter 7, Parks, Open Space and Cultural resources, lists trail needs))~~ Appendix C2 of the Plan.
- **Concurrency** – The concurrency program is described in Chapter 8, Section II.~~((H-))~~ G. of the Plan.
- **Consistency of Plans**--The comprehensive plan is consistent with Transportation 2040, the regional transportation plan for the four-county region. Transportation 2040 is consistent with the region’s urban growth strategy, Vision 2040, also developed by the Puget Sound Regional Council. The Puget Sound Regional Council reviews the Plan for consistency and has certified previous versions of the Plan and its amendments. Consistency was further enhanced in this version by the adoption of Puget Sound Regional Council’s regional modeling products and plan review by other jurisdictions. The comprehensive plan provides policy direction for the development of the county’s functional plans.

II. Arterial Functional Classification

Functional classification is the designation of highways, roads and streets into groups according to the “function” each road serves or is intended to provide. A foundational principle to this grouping process is that individual roads do not serve travel independently; instead, most travel involves movement through a network of roads. Functional classification helps to define the part that any individual road will play in serving traffic through the road system.

There are two primary functions of a road, and at times they may conflict with each other. First, the road provides mobility for users. Second, the road must provide access to adjacent land uses. Functional street classification is an important tool for planning a transportation or roadway system, as well as in designing and constructing individual facilities. The classification system and King County Road Standards are used to distinguish between different types of roads for planning analyses, road design, and for allocating public funds for transportation improvements.

In unincorporated King County, there are three types of arterial roadways:

Principal Arterials - Provide for movement across and between large subareas of an urban region and serves primarily through traffic with minimum direct access to neighboring land uses. This category includes freeways and major highways under the jurisdiction of the Washington State Department of Transportation.

Minor Arterials - Provide for movement within the larger subareas bound by principal arterials. A minor arterial may also serve through traffic but provides more direct access to neighboring land uses than does a principal arterial.

Collector Arterials - Provide for movement within smaller areas which are often definable neighborhoods, and which may be bound by arterials with higher classifications. Collectors serve very little through traffic and serve a high proportion of local traffic requiring direct access to abutting properties. Collector arterials provide the link between local neighborhood streets (i.e. non-arterials) and larger arterials.

The arterials of the King County road network can be seen in the map “2016 King County Arterial Functional Classification.”

III. Transportation Inventory

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1. Introduction

A. Requirements

The Growth Management Act [RCW 36.70A.070(6)(A)] requires an inventory of air, water, and land transportation facilities and services, including transit alignments, and general aviation facilities, to define existing capital facilities and travel levels as a basis for future planning. The inventory must include state-owned transportation facilities within the unincorporated King County boundaries. This document fulfills this requirement by describing King County's multi-modal transportation system and by identifying available resource materials.

B. Process

The County's approach to the inventory construction is that of reference, rather than collection. This approach will enable planners to evaluate inventory information and determine what data will best meet their studies' requirements. Even though the scope of the Comprehensive Plan Transportation Element is primarily focused on the unincorporated King County, the scope of the Transportation ((-)) Inventory is generally countywide.

C. Coordination

The regional coordination of land use and transportation is mandated by the Growth Management Act [RCW 47.80.010].¹ King County has taken an active role in assuring a regionally coordinated transportation system. In cooperation with other central Puget Sound jurisdictions, King County is striving towards a regional approach to important planning issues such as level of service, concurrency, locations of regional and countywide transportation facilities, financing, non-motorized transportation, and Transportation Demand Management.

D. Organization

The inventory is organized into three categories—(1) an inventory of the air transportation facilities and services; (2) an inventory of marine transportation facilities and services; and (3) an inventory of land transportation facilities and services.

¹ Revised Code of Washington 47.80.010. <http://apps.leg.wa.gov/RCW/default.aspx?cite=47.80.010>

2. Air Transportation System

The Growth Management Act requires an inventory of the air transportation system to define existing capital facilities and travel levels as a basis for future planning. The air transportation system plays an important role as part of the regional and national transportation network because it provides for quick and efficient intrastate, interstate, and international travel of passengers and cargo.

King County public-use airports represent an essential element of the County's transportation system and provide critical support to the King County economy. Twenty-two airports are located within King County.ⁱ The King County airports span a broad range in terms of scale and role, from the Port of Seattle, Seattle-Tacoma International Airport to King County International Airport-Boeing Field, to seaplane facilities and small privately owned airstrips.ⁱⁱ The King County airport inventory consists of public use and privately owned airport facilities which are open to the public.

The Puget Sound Regional Council (PSRC), Air Compatible Land Use Program Update Study, December 2011, included a wide variety of activities related to planning and support for the central Puget Sound region's public use airport system.ⁱⁱⁱ Program activities were included such as airport ground access planning, regional air cargo planning, cooperative efforts with the WSDOT Aviation Division in planning for long-range airport capacity, and ongoing efforts to address airport compatible land use under the PSRC's Growth Management Act (GMA) authority. WSDOT is scheduled to release an update to the state Aviation System Plan in June, 2016.

The Air Compatible Land Use Program Update Study, King County International Airport's Adopted Master Plan, and Port of Seattle, Airport Statistics are available at:

<http://www.portseattle.org/About/Publications/Statistics/Airport-Statistics/Pages/default.aspx>

<http://www.wsdot.wa.gov/aviation/Planning/>

<http://www.psrc.org/transportation/airtrans>

<http://www.kingcounty.gov/transportation/kcdot/Airport/Planning.aspx>

<http://www.portseattle.org/About/Publications/Pages/default.aspx>

3. Marine Transportation System

The Growth Management Act requires an inventory of the marine transportation system to define existing capital facilities and travel levels as a basis for future planning. The marine transportation system plays an important role in the movement of people and goods within King County, supplying the main commuter link between Seattle's central business district and the west Puget Sound corridor and as the hub network for local, regional and international freight movements.

The marine passenger transportation system serves the entire Puget Sound region from Tacoma to ((-)) Sidney, British Columbia. The facilities that serve King County include ferry terminals and vessels servicing ferry routes. Ferry service is primarily provided by Washington State Ferries and the King County Ferry District that is responsible for the King County Water Taxi passenger-only ferry service. Other passenger-only ferry operators offer more recreational and travel-related service such as Clipper Navigation, Inc. Kitsap County and the Port of Kingston are working toward developing service from Kitsap County across the Puget Sound.

A. Washington State Ferries

The Washington State Ferries was established in 1951 and is the largest ferry system in the United States. The system includes 20 terminals and 24 vehicle/passenger ferries, carrying over 23 million passenger and vehicle trips annually. A new pilot vehicle reservation system - debuted in 2009 - continues to expand on select routes to spread demand and reduce invest capital improvement costs associated with traffic control.^{iv}

Washington State Ferries provides service to 20 different communities in 8 different counties, including King County. The service serves two vital transportation functions: As a marine highway and as a transit service provider.^v They provide frequent mainland access to several island communities including Vashon Island in King County, Bainbridge Island in Kitsap County and Whidbey Island in Island County. Washington State Ferries takes people to and from work in the downtown Seattle business corridor and to other communities on the east and west sides of Puget Sound.

Detailed information about Washington State Ferry System and Long-Range Plan are available at:

<http://www.wsdot.wa.gov/ferries/>

<http://www.wsdot.wa.gov/ferries/Planning/ESHB2358.htm>

B. King County Marine Division

The King County Department of Transportation, Marine Division is responsible for the operations, moorage, and maintenance of the vessels that provide passenger-only ferry services in King County. Passenger-only ferry services are currently provided between downtown Seattle, Vashon Island, and West Seattle.

~~((King County Marine))~~ The Marine Division operates out of three terminals: Pier 50 in downtown Seattle and the ferry dock on Vashon Island, both leased from Washington State Ferries. The West Seattle ferry dock, located at Seacrest Park, is leased from Seattle Parks and Recreation. King County Marine owns a moorage and maintenance barge located on the Seattle waterfront.

~~((King County))~~ The Marine Division owns three vessels: The MV Sally Fox and MV Doc Maynard are vessels constructed for the Marine Division in 2014 – 2015. Each vessel holds a capacity of 278 passengers. The MV Spirit of Kingston is a 150 passenger vessel that was acquired from the Port of Kingston in 2013.

In 2015, King County's Water Taxi provided service for over 515,000 passengers system-wide. In early 2015, ~~((King County Marine))~~ the Marine Division released "Water Taxi Watch", a real time vessel tracking system for riders. In 2015, research began on the potential viability of expansion routes, primarily on Lake Washington and in the Puget Sound. This will include an assessment of passenger-only ferry expansion options that build on new transit options to be delivered through Sound Transit's University Link and other funded regional transit expansions being delivered in the next decade.

Additional information on services provided is available at:

<http://www.kingcounty.gov/transportation/kcdot/WaterTaxi>

C. Port of Seattle Marine Facilities and Services

The Port of Seattle plays a key role in transportation and travel to and from the Pacific Northwest, and is also a key builder of road and rail infrastructure, partnering with other agencies to improve freight traffic in the Puget Sound region. The Port operates:

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- Passenger cruise terminals: Smith Cove Terminal and Pier 66.
- Four Commercial Marine Docks/Piers: Fishermen's Terminal, Piers 90/91, Maritime Industrial Center, and Bell Street Pier.
- Four public marinas: Bell Harbor Marina, Fishermen's Terminal, Harbor Island Marina, and Shilshole Marina.

Seaport publications on seaport activities, facilities plans, and service and activity levels are available at:

(<http://www.portseattle.org/About/Publications/Pages/>)

<https://www.portseattle.org/Cargo/SeaCargo/Pages/default.aspx>

4. Land Transportation System

This section includes a wide range of information and references for land transportation related facilities, services and transportation demand management programs in King County. This information provides a foundation for the Comprehensive Plan transportation element and for future transportation planning.

County Roads

Road Log

The County Road Log represents a detailed inventory of physical and administrative features that describe the county's unincorporated roadway system. Physical features include information on pavement type, roadway and shoulder width, number of lanes, median, pavement type, retaining and sea walls, guardrails, sidewalks and walkways. Administrative features include information such as the roadway's functional classification and its comprehensive plan designation as being located in the urban or rural areas.

A general inventory of King County's road infrastructure as of 2016 includes the following:^{vi}

Roadways	1,469 miles
Bridges	181
Traffic Signals	78
Traffic Control Signs	Over 44,000
Traffic Cameras	50
Drainage Ditches	~ 5.7 million feet

Additional information related to the road log can be obtained by contacting the Road Services Division, Strategic Business Operations Section, Project Support Services.

The King County Road Index map book, 2015 edition, is available at:
<http://www.kingcounty.gov/operations/GIS/Maps/VMC/Transportation.aspx>

Pavement Management System

The Pavement Management System is used by the Road Services Division to track pavement conditions and develop resurfacing programs for unincorporated King County roads. The pavement condition of arterials, including collectors, and local access roads are evaluated every two to three years.

For more information on the Pavement Management System, contact the King County Department of Transportation, Road Services Division or visit:

<http://www.kingcounty.gov/depts/transportation/roads/paving-projects.aspx>

Bridges

Bridges span physical obstacles such as bodies of water, creeks, streams, rivers, valleys, railroad crossings, and roads to connect King County's road network. County engineers inspect and maintain an inventory of 181 bridges across King County, from Vashon Island to Skykomish. ^{vii} ((-))

In 2016 this inventory included:

- 174 vehicular bridges wholly owned by King County Road Services Division.
- 3 bridges co-owned with other agencies.
- 3 pedestrian bridges.
- 1 safety corridor bridge

An updated list of bridge needs is included in the Annual Bridge Report, as required by King County Ordinance 11693. ^{viii} Roads Services is required to review and update its list of bridge needs for replacement/rehabilitation, seismic retrofit, and re-decking annually, preparatory to the Capital ((-)) Improvement Program budgeting process.

The King County Annual Bridge Report is available at:

<http://www.kingcounty.gov/depts/transportation/roads/bridges.aspx>

Roadside Barriers (Guardrails)

One way King County promotes safety on county-maintained unincorporated roads is by installing new guardrails, repairing existing barriers and rails, and upgrading older guardrails to meet current roadway standards. This network includes approximately 114 miles of guardrail. More information on guardrails can be obtained by contacting the Road Services Division, Engineering Services Section.

Traffic Control Devices

Traffic control devices are signals and information systems used to regulate, warn, or guide both vehicular and pedestrian traffic. These devices are placed on, over, or adjacent to a roadway, pedestrian path, or shared-use path. Examples of traffic control devices include traffic signals, signs, and pavement

markings. Information on traffic control devices can be obtained by contacting the Roads Services Division, Traffic Section at:

<http://www.kingcounty.gov/depts/transportation/roads/traffic.aspx>

Traffic Counts

Information on unincorporated area traffic counts can be found at:

<http://gismaps.kingcounty.gov/TrafficCounts/>

Safety

The Road Services Division produces an annual Traffic Safety Report. This report reviews collision trends within unincorporated King County in the ongoing effort to reduce the number and severity of collisions. The report is intended to provide critical information that can be used to better allocate limited safety funds, increase driver awareness of safety concerns, and improve the safety of the traveling public.

King County Traffic Safety Reports are available at:

<http://www.kingcounty.gov/depts/transportation/roads/traffic.aspx>

Washington State Department of Transportation, statewide travel and collision data is available at:

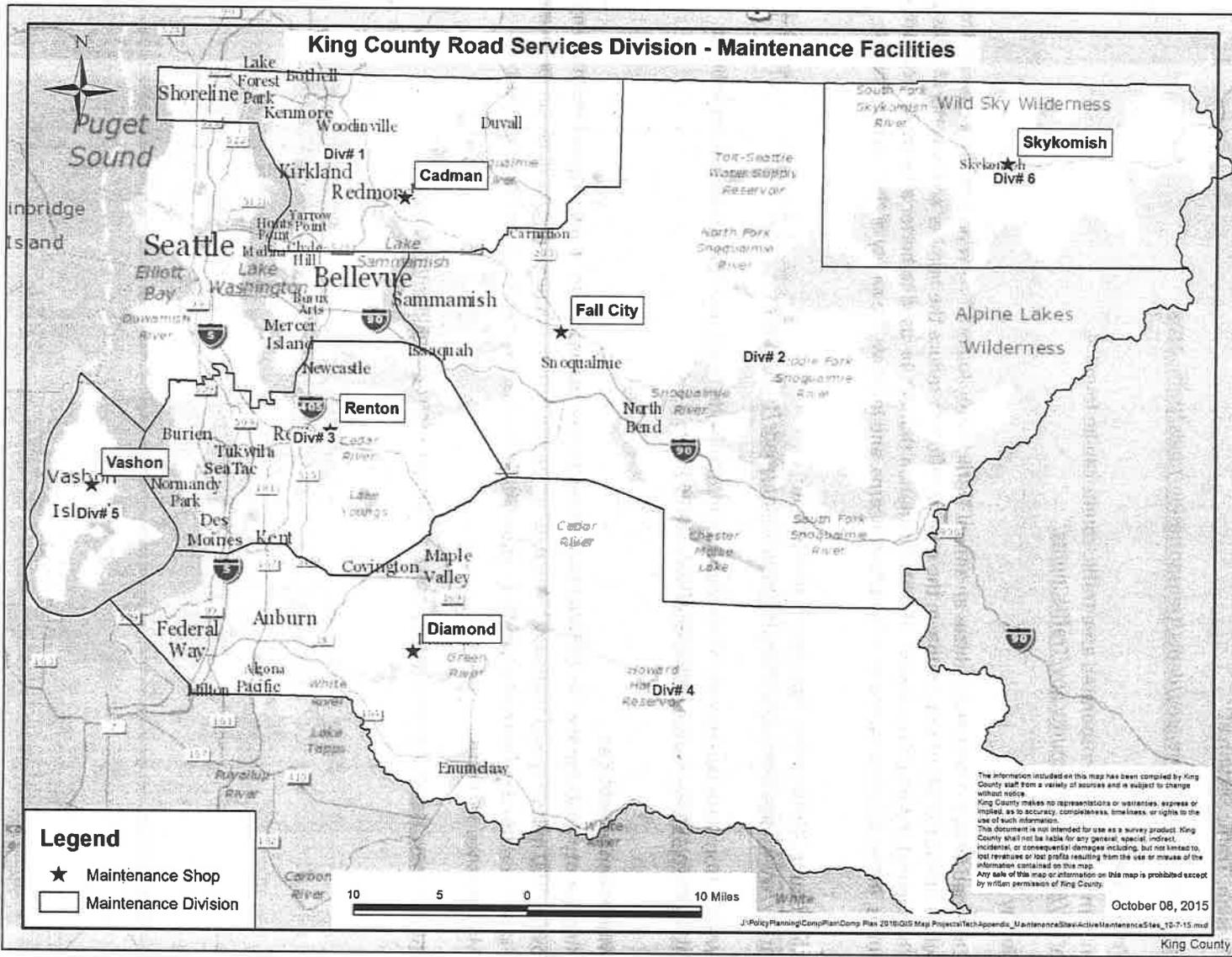
http://www.wsdot.wa.gov/mapsdata/tdgo_home.htm

Maintenance Facilities

King County Road Services' Roads Maintenance Section is responsible for enhancing and maintaining over 1,400 miles of paved roadway.^{ix} A map of the county's roads maintenance facilities can be found in Figure A on the page that follows. More information can be obtained by contacting the Roads Maintenance Section at:

<http://www.kingcounty.gov/depts/transportation/roads/road-maintenance.aspx>

Figure A



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State and Federal Highways

Major Highways

The State Highways of Washington comprise of a network of state highways, including all Interstate and U.S. Highways that pass through the state, maintained by the Washington State Department of Transportation. Four Federal Highways and twenty-eight State Highway Routes are located in King County, including five ferry routes.^x All state highways are designated by the Washington State Legislature.^{xi}

Maps of the State Highways can be viewed at:

<http://www.wsdot.wa.gov/Publications/HighwayMap/view.htm>

Highways of Statewide Significance

Highways of Statewide Significance (HSS) include interstate highways and other state principal arterials that are needed to connect major communities in the state. The designation helps assist with the allocation and direction of funding.

A map of the HSS corridors is available at:

<http://www.wsdot.wa.gov/planning/HSS/>

A map of both state and regionally significant state highways within King County is available at:

<http://www.psrc.org/transportation/t2040/los/>

Transit Services

Transit services in King County are provided by four public transit agencies. King County Metro Transit (Metro) provides the vast majority of regular bus service and general public demand area response transit (“DART”) available to King County residents. Pierce Transit and Community Transit provide commuter bus services into King County urban centers including downtown Seattle, downtown Bellevue, and the University District in northeast Seattle. Sound Transit provides regional high capacity transportation throughout parts of King, Pierce and Snohomish counties through commuter rail (Sounder), light rail (Link) and a regional express bus system (ST Express).

King County Metro Transit

In a service area of more than 2,000 square miles and 2 million residents, Metro operates over 200 bus, trolley and demand area response transit (DART) routes that serve destinations across King County.^{xiiixiii}

Metro at a Glance (2015)^{xiv}

- Fixed-route ridership: 121.8 million
- Vanpool ridership: 3.5 million
- Access ridership: 1.4 million
- Annual service hours: 3.6 million
- Active fleet: 1,473 buses
- Bus stops: 8,079
- Park-and-rides: 130
- Park-and-ride spaces: 25,468

A list of Metro routes and schedules, including route maps, is available at:
<http://metro.kingcounty.gov/schedules/>

Other information about Metro’s system and performance can be found at:
<http://metro.kingcounty.gov/am/accountability/>

Metro Services

RapidRide

RapidRide is Metro’s arterial bus rapid transit network launched in 2010. As of 2015, Metro operates 6 RapidRide lines throughout King County. RapidRide separates itself from standard bus service with high frequency (every 10 minutes during peak hours), fewer stops, use of semi-exclusive lanes, and all-door passenger boarding and exiting. Additional information on RapidRide is available at:

metro.kingcounty.gov/travel-options/bus/rapidride/

Alternative Services

The King County Metro Alternative Services Program brings a range of mobility services to parts of King County that do not have the infrastructure, density, or land use to support traditional fixed-route bus service. As such, alternative services are an important part of Metro's efforts to cost effectively deliver transportation alternatives across King County. The program is guided by the King County Metro Transit Five-Year Implementation Plan for Alternatives to Traditional Transit Service Delivery adopted in 2012.

Alternative Services include: VanPool, ~~((Metropol))~~ MetroPool, VanShare, TripPool, SchoolPool, Real-Time Rideshare, CarPool, Community Shuttles, Emergency Ride Home, Community Van, and ~~((Bike))~~ Bicycle Library.

Information on Metro's Alternative Services Program is available at:
<http://metro.kingcounty.gov/programs-projects/alternative-services/>

~~((ACCESS))~~ Access Paratransit

The ADA Paratransit Program provides next-day, shared rides on Access Transportation within ¾ of a mile on either side of non-commuter fixed route bus service during the times and on the days those routes are operating.^{xv} Paratransit service is intended to offer a comparable level of service to that provided by regular bus service. Paratransit service is not required nor intended to meet all the transportation needs of persons with disabilities. Rather, it is intended to provide public transportation in a more specialized form. Individuals must be evaluated and deemed eligible prior to using ACCESS services. Eligibility is based on whether your disability prevents a person from performing the tasks needed to ride regular bus service some or all of the time. Metro provides ACCESS service through private contractors.

Additional information on the ADA Paratransit Program:
<http://metro.kingcounty.gov/tops/accessible/programs/paratransit.html>

Transportation Demand Management, Equity and Social Justice, and Partnership Programs

Metro offers many programs, products, and services to area employers, other organizations, and individuals. Major Metro programs include:

ORCA Business Products^{xvi} – Employers can contract with Metro to provide ORCA cards as subsidized passes for their employees for access to public transportation services, including bus, commuter rail, Link light rail, streetcar, ferry, water taxi, vanpool/vanshare, and guaranteed ride home service.

Employers can select a comprehensive program or a flexible package to suit their needs.

ORCA LIFT – ~~((A new))~~ This is a program that provides reduced transit fare that provides a discounted rate of \$1.50 per trip for residents who earn less than 200-percent of the federal poverty rate, which is currently \$23,340 for a one-person household.^{xvii} ~~((Reduced fares will be available March 1, 2015 for riders who qualify))~~. ORCA LIFT is one of the largest programs of its kind in the United States.

Information on ORCA LIFT can be found at:

<http://metro.kingcounty.gov/programs-projects/orca-lift/>

Commuter vans (vanpool/vanshare) – Vanpools provide a complete trip, usually travel at least 10 miles each way from home or park-and-ride to a worksite and can have as many as 15 riders. Vanshares are intended to bridge the gap between public transportation (bus, train, water taxi, or ferry) and a final destination. Metro provides the van and covers rider support services, maintenance, insurance, fuel, tires and training for a per-rider monthly fee.

Community Access Transportation – This program provides vans, maintenance, and some operating funds to community organizations.^{xviii} The program makes use of high-quality retired Access and vanpool vehicles for transportation services operated by these organizations. One example is the Downtown Circulator Bus, a free downtown circulator bus for people living on low incomes that provides access to health and human services in downtown Seattle. The circulator bus is operated through a partnership with the nonprofit organization, Solid Ground.

Bicycle programs and facilities – Metro supports bicycling in conjunction with public transportation by providing racks on every bus to accommodate three ~~((bikes))~~ bicycles, racks on request for vanpools, ~~((bike))~~ bicycle lockers at park-and-rides and transit centers, a ~~((bike))~~ bicycle station, and information about getting around by ~~((bike))~~ bicycle. Bicycling is also included as a travel option in Metro incentive programs that encourage alternatives to driving alone.

Home Free Guarantee – Metro provides emergency taxi service for commuters who arrive at work without their personal vehicle (by transit, carpool, vanpool, bicycle or walking) and have an unplanned emergency or unscheduled overtime.

Information on this program can be found at:

<http://www.kingcounty.gov/transportation/CommuteSolutions/products/HFG.aspx>

JARC program – The Job Access Reverse Commute (JARC) Transportation Program partners with social service agencies, community based organizations, housing authorities, local jurisdictions and employers to assist with transportation issues for low income individuals.

Information on Metro’s JARC program can be found at:
<http://metro.kingcounty.gov/tops/jobaccess/jobseeker.html>

In Motion – In Motion enlists local businesses, organizations, and communities as partners to entice people to register as participants and pledge to reduce car trips over a period of time. Participants earn rewards for their reduced trips.

Information on In Motion can be found at:
<http://www.kingcounty.gov/transportation/kcdot/MetroTransit/InMotion.aspx>

Rideshare Online - RideshareOnline.com provides free online self-serve ride matching services. The online system matches commuters interested in sharing rides in carpools, commuter vans, group biking, event travel, and with other parents transporting kids to school.

Information on Metro’s Rideshare program can be found at:
<http://metro.kingcounty.gov/tops/van-car/van-car.html>

Special and Custom Bus Service

Metro provides special transit services for major community and sporting events in partnership with event sponsors.

Information regarding Metro’s special event service can be found at:
<http://metro.kingcounty.gov/up/spclevent.html>

Contract Services

Metro serves as the operator for other transit services in Seattle and King County. Metro operates nine ((-)) Regional Express bus routes and Central Link light rail for Sound Transit. Metro operates the Seattle Streetcar South Lake Union line for the City of Seattle.

Service Connections

Metro service connects to a wide range of other transportation services in King County, including for bus, rail, ferry, and air travel hubs. Metro provides intermodal connections with Sound Transit Link light rail and Sounder commuter rail service, Amtrak rail service, Washington State Ferries, and Sea-Tac International Airport. Metro also connects with other bus services including Sound Transit, Community Transit, Pierce Transit and intercity Greyhound bus service.

In June 2014, ~~the~~ King County Executive (~~Dow Constantine~~) issued an executive order directing the King County Department of Transportation to increase joint planning and integration with Sound Transit. The action was reciprocated by adoption of a related motion by the Sound Transit Board of Directors.

Further information on the collaboration between Metro and Sound Transit can be found at: www.kingcounty.gov/elected/executive/constantine/News/release/2014/September/10_metro-sound-transit-report.aspx

Capital Facilities

Metro provides buses, use of semi-exclusive lanes, and facilities such as park-all-door passenger boarding and rides and bus shelters for King County bus exiting. (~~-~~) Voter approved sales tax and federal grants are the primary revenue sources.

Physical Plant

Metro's administrative offices are located at 201 South Jackson Street in downtown Seattle. Metro also has seven operating bases located throughout the county, and a variety of other physical facilities to support the provision of transit and ridesharing service. Major facilities include:

Central Campus and SODO (Seattle)

- Atlantic/Central Bases, 1270 6th Ave. S., Seattle
- Atlantic Maintenance, 1555 Airport Way South, Seattle
- Central Maintenance, 640 South Massachusetts, Seattle
- Ryerson Base, 1220 4th Ave. S., Seattle
- Transit Control Center, 1263 6th Ave. S., Seattle
- Employee Parking Garage, 1505 6th Avenue South, Seattle
- Tire and Millwright Shop, 1555 Airport Way South, Seattle
- Marketing Distribution Center, 1523 6th Ave South, Seattle
- Power Distribution, 2255 4th Avenue South, Seattle

Campus & Eastside

- (~~Link population centers to significant employment centers as Seattle, Bellevue, and Renton~~)
Bellevue Base, 1790 124th NE, Bellevue
- East Base, 1975 124th NE, Bellevue
- Vanpool Distribution, 18655 NE Union Hill Road, Redmond

Tukwila

- South Base, 12100 East Marginal Way S., Tukwila
- Training and Safety Center, 11911 East Marginal Way S., Tukwila
- South Facilities, 11911 East Marginal Way S., Tukwila
- Component Supply Center, 12200 East Marginal Way S., Tukwila

Shoreline

- North Base, 2160 N. 163rd St., Shoreline

Metro operates the Downtown Seattle Transit Tunnel (DSTT), a 1.3 mile dual-bore transit-only facility with five stations. Four stations are served by bus and Link light rail, while Convention Place Station is served by buses only. The DSTT is served by ~~((17))~~ 14 Metro bus routes ~~((and will be reduced to 14 in late 2015 in preparation for the LINK light rail extension to the University District))~~, one Sound Transit Regional Express bus route, and Sound Transit Link light rail. Joint bus-rail operations began in the DSTT in 2009 with the start of Central Link light rail service. The DSTT is one of very few facilities in the world with joint operations. DSTT operating hours are 5 a.m. to 1 a.m. from Mondays to Saturdays and 6 a.m. to midnight on Sundays. Metro also operates service on the SODO busway, a transit-only roadway between South Spokane Street and Royal Brougham Way in Seattle.

Fifteen Metro routes use electric trolley buses. To support the electric trolley bus network, Metro operates and maintains a network of overhead power infrastructure and electrical substations to power the system.

Bus Stops and Shelters

Metro's transit system is very large and includes 9,200 bus stops and 1,568 bus shelters. Many of these stops and shelters are maintained by Metro in coordination with jurisdictions.²

Park-and-Ride Lots

A park-and-ride lot is a designated passenger facility where individuals can leave their private vehicles or bicycles to access public transportation. A park-and-ride lot can also serve as a park-and-pool lot, where individuals can rendezvous to form carpools and vanpools.

There are 130 park-and-ride facilities (64 permanent and 66 leased park-and-ride lots) in the King County Metro area, with a total of 25,489 vehicle spaces as the end of 2014.^{xix} Metro, Sound Transit, and WSDOT own permanent park-and-ride lots within King County, and a wide variety of agencies and organizations own spaces that Metro leases for use. Metro maintains approximately 55 park-and-ride lots owned by Metro and WSDOT.

² <http://www.kingcounty.gov/transportation/kcdot/MetroTransit/PowerAndFacilities/BusShelters.aspx>

A list of park-and-ride locations with information on capacity, routes, and amenities can be found at:
metro.kingcounty.gov/tops/parknride/

Metro's quarterly park-and-ride utilization reports can be found at:
<http://metro.kingcounty.gov/am/accountability/park-ride-usage.html>

Charging Station Program

King County promotes the use of alternative fuel vehicles. King County's charging station program is an initiative aimed at growing the plug-in vehicle market. As of June 2012, King County Metro manages 27 earlier generation 110-volt plug-in outlets.^{xx} The latest County effort adds 36 new, 220-volt electric vehicle charging stations at multiple locations. In a related effort, the County created the Metropool program, adding 25 all-electric vehicles to the Vanpool, Vanshare, and Motorpool programs.

More information on the Metropool program is available at:
<http://metro.kingcounty.gov/tops/van-car/programs/metropool/index.html>

More information on park-and-plug spaces and locations in King County park-and-rides is available at:
<http://metro.kingcounty.gov/tops/parknride/>

Capital Program

Metro Transit is one of twelve capital programs at King County and is part of King County's Capital Improvement Program. Capital projects help to maintain and improve King County assets and infrastructure. Metro has its own designated revenue sources and service areas.

Metro's Public Transportation Fund Capital Program provides for ongoing replacement of aging infrastructure and supports service delivery and expansion. The focus of the Capital Improvement Program (CIP) is on maintaining existing infrastructure and systems, partnering with other regional transportation agencies and providing the physical capacity needed to support projected service. As a part of the long range planning effort started in 2013, Metro will review capital needs based on the future network.

More information can be found at: <http://www.kingcounty.gov/exec/PSB/Budget/CIP.aspx>

Information on King County's Transit Asset Management Program (TAMP) can be found at:
<http://www.kingcounty.gov/transportation/kcdot/MetroTransit/PowerAndFacilities/AboutUs.aspx>

Sound Transit

Sound Transit is a regional transit authority implementing and providing a high capacity transportation system throughout parts of King, Pierce and Snohomish counties through commuter rail (Sounder), light rail (Link) and a regional express bus system (ST Express). More information can be found here:

<http://www.soundtransit.org/>

ST Express Regional Bus Service

ST Express regional bus service includes limited-stop bus routes, partnerships with WSDOT to develop HOV direct-access projects, and a variety of community connection facilities including transit centers, access improvements, and park-and-ride lots.^{xxi} ST Express buses travel between major cities in King, Snohomish, and Pierce counties.

Information on routes, related projects, and fares is found at:

soundtransit.org/Rider-Guide/ST-Express-bus

Sounder Commuter Rail

Sounder commuter rail uses diesel-powered locomotives and multi-level passenger coach trains that run on BNSF Railway Company railroad freight tracks.^{xxii} Sounder shares the tracks with freight trains and (()) Amtrak passenger trains, using upgraded signals, switches, and street crossings. Trains travel between Lakewood and Seattle and between Everett and Seattle.

Information on routes, related projects, and fares is found at:

soundtransit.org/Rider-Guide/Sounder-train

Link Light Rail

Link light rail is an electrically-powered service that ((adds a new system of)) provides high-capacity transportation within the region's highest employment and transit ridership areas.^{xxiii} Central Link light rail travels between ((Westlake Station in downtown)) the University of Washington campus in Seattle and Sea-Tac Airport. ((The Link system will expand the existing light rail service to the north connecting Seattle's Capitol Hill neighborhood and the University of Washington to downtown and the airport in 2016.))^{xxiv}

Information on routes, related projects, and fares is found at:

soundtransit.org/Rider-Guide/Link-light-rail

System Expansion

The initial phase of the regional mass transit system ((is scheduled for completion)) was completed in 2016, connecting Sea-Tac Airport, downtown Seattle, and the University of Washington.^{xxv} The second

phase of “ST2”, expands the transit system throughout the region, and is scheduled for completion in 2023. Sound Transit has begun planning for the expansion of the regional transit system. In late 2014, Sound Transit updated its Long-Range Plan, the roadmap for future development of the regional transit system

Based on its long range, Sound Transit is working to develop a new System Plan – “ST3” which (~~could go before~~) was adopted by the voters in November 2016. (<http://soundtransit3.org/>)

Sound Transit’s Long Range Plan can be found at:
<http://www.soundtransit.org/longrangeplan>

Service Integration

Sound Transit services are integrated with the local bus routes operated by King County Metro so that all services support and complement each other. A 1998 Memorandum of Understanding (MOU) between the two agencies established the basic principles under which a coordinated system will be planned and operated.^{xxvi} The partnership was strengthened by an initiative announced in late 2014 by the King County Executive Dow Constantine to increase joint planning and integration between the two agencies for operating efficiencies and future service expansion.^{xxvii}

Information on Sound Transit’s services and plans is available at:
soundtransit.org/Projects-and-Plans

Sound Transit’s Transit Development Plan Annual Reports are available at:
soundtransit.org/About-Sound-Transit/News-and-events/Reports/Transit-Development-Plan

Additional information and a full report on King County Metro and Sound Transit service integration is available at:

[Getting There Together](#)(~~(7)~~) [Transit Integration Report, September 2014]

High Occupancy Vehicle System

The High Occupancy Vehicle (HOV) system is an important element of King County’s and the region’s multi-modal transportation system. High occupancy vehicle lanes - also known as carpool lanes, commuter lanes, diamond lanes, or bus lanes - are reserved for vehicles containing at least a specified number of occupants (such as 2, 3, 4, or more) or for transit vehicles(~~(-also known as carpool lanes, commuter lanes, diamond lanes, or bus lanes)~~).^{xxviii} Such lanes can be on highways, on arterials, or on metered entrance ramps to highways. They may be physically separated from other lanes, or indicated with signage. Some operate only during certain hours. Other types of strategies that potentially promote higher vehicle occupancy include ridesharing programs, parking management, guaranteed ride home policies, and other employer-based programs.

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Coupled with the County's Transportation Demand Management program, HOV facilities are designed to help accommodate growth by moving more people in fewer vehicles, reducing the need for new road construction or major widening projects on the County's existing arterial system. Recent changes to the HOV lane system include direct access ramps to support Sound Transit's regional bus service, as well as freeway to freeway improvements to interconnect the system. The HOV system is a crucial part of the central Puget Sound area's highway system, carrying more than 1/3 of freeway travelers during rush hours.^{xxix} Today, approximately 310 lane miles of operating HOV facilities are available for use in King County by transit, carpools, and vanpools.

Information on the HOV system is available at: <http://www.wsdot.com/HOV/default.htm>

For a complete list of Sound Transit projects visit: <http://www.soundtransit.org/Projects-and-Plans>

Nonmotorized Facilities

~~((Bike))~~ Bicycle Parking and Lockers

~~((Bike))~~ Bicycle parking and secure storage support ridership by increasing options for people to connect to bus service or to meet a carpool or vanpool. King County park-and-~~((rides))~~ride lots and transit centers have ~~((bike))~~ bicycle racks and/or ~~((bike))~~ bicycle lockers on a space-available basis to cyclists who commute. Metro aims to reduce car travel to these locations by making it reliable to secure ~~((bikes))~~ bicycles. Combined, Metro and Sound Transit currently provide 523 lockers across 40 locations for cyclists.^{xxx}

Information on ~~((bike))~~ bicycle parking and lockers is available at:
<http://metro.kingcounty.gov/tops/bike/parking/index.html>

King County Trails

The King County Parks System includes more than 294 miles of regional greenway and shared use paths.

This expanding network includes over 175 miles of trails for hiking, biking, walking, and horseback riding. The backcountry trail system offers 130 miles of backcountry trails with year-round accessibility for hiking, mountain biking, and horseback riding. These trail systems provide extensive opportunities for recreation usage and non-motorized mobility and commuting throughout King County. The planned future Regional Trail system anticipates about 300 miles of King County regional trails.

Information about the King County Regional Trails System is available at:
<http://www.kingcounty.gov/recreation/parks/trails.aspx>

Historic and Scenic Roads and Highways

King County Heritage Corridors

In an effort to preserve the county's transportation history, King County has identified nine "Heritage Corridors" in unincorporated King County.^{xxxi} These corridors share King County's history through its most formative decades of development, from the 1870s through the 1930s. They touch on industrial, commercial, agricultural, and maritime themes. Identification of these Heritage Corridors helps the county maintain and operate its historic and scenic roads in keeping with their unique character.

The Heritage Corridors program also includes public education materials that enhance the public's travel experience and lead to a greater understanding and appreciation of the region's transportation history. The county also encourages adjacent private property owners to support the preservation of the corridors.

The identified Heritage Corridors are:

- Cedarhurst Road / Westside Highway, Vashon Island
- Dockton Road, Vashon-Maury Island
- Green Valley Road, Auburn-Black Diamond
- Issaquah-Fall City Road, Snoqualmie Valley
- Osceola Loop, Enumclaw Plateau
- West Snoqualmie River Road, Snoqualmie Valley
- West Snoqualmie Valley Road / Carnation Farm Road, Snoqualmie Valley
- Old Cascade Scenic Highway, Stevens Pass
- Old Sunset Highway, Snoqualmie Pass

Information about King County's Heritage Corridors, including maps and final report, are available at:
<http://www.kingcounty.gov/depts/transportation/roads/historic-corridors.aspx>

Washington State Scenic and Recreational Highways

Washington's Scenic and Recreational Highways, as designated in RCW 47.39, are important access routes to some of the most scenic resources and best recreational destinations in the state.^{xxxii} In King County there are approximately 175 miles of designated Scenic and Recreational Highways. These include portions of I-90 (Mountains to Sound Greenway), US 2 (Stevens Pass Greenway), SR 410 ((-)) (Chinook Pass Scenic Byway), and SR 202 (Cascade Valleys Scenic Byway).

A map of Washington Scenic and Recreational Highways is available at:
wsdot.wa.gov/LocalPrograms/ScenicByways/Map.htm

Corridor management plans are available at:
wsdot.wa.gov/LocalPrograms/ScenicByways/CorridorManagementPlans.htm

Rail

Interstate Rail Facilities

The rail network in the state has three distinct types of rail services: freight, intercity passenger, and commuter. The Class I railroad system primarily serves the inland transportation component of the supply chain for large volumes of import and export cargo moving through state ports including the Port of Seattle. Two Class I railroads, the BNSF Railway and the Union Pacific Railroad, as well as 24 short-line railroads operate through communities in Washington State.^{xxxiii,xxxiv} Amtrak provides intercity passenger rail service along the I-5 corridor, this intercity rail service is known as Amtrak Cascades.^{xxxv} As the demand for reliable passenger rail travel increases, stations are being expanded and refurbished to serve growing numbers of passengers and to provide them with enhanced security, comfort, and timely information. The Cascades High-Speed Rail Program consists of a series of projects that will increase service reliability and add two Amtrak Cascades round trips between Vancouver, B.C. and Portland. Currently there are two Amtrak Stations in King County.

Sound Transit's Sounder commuter rail uses diesel-powered locomotives and multi-level passenger coach trains that run on BNSF Railway Company railroad freight tracks.^{xxxvi} Sounder shares the tracks with freight trains and Amtrak passenger trains, using upgraded signals, switches, and street crossings. Trains travel between Lakewood and Seattle and between Everett and Seattle.

A complete description of the existing freight and Amtrak facilities, projects, and data is available at:

<http://www.wsdot.wa.gov/Freight/Rail/default.htm>

<http://www.wsdot.wa.gov/rail/>

Information on Sounder routes, related projects, and fares is found at:

soundtransit.org/Rider-Guide/Sounder-train

Freight Transport

Freight transport, is a major function of the regional transportation system. The Puget Sound Regional (()) Council (PSRC) has developed a comprehensive, multimodal Freight Strategy that will serve as the freight component of the adopted long range transportation plan, Transportation 2040.^{xxxvii} The Freight Strategy describes the regional freight mobility system and incorporates all of the main freight modes, including rail, truck, air, and marine cargo. It examines the current and future conditions and issues as the region looks to planning for a sustainable transportation system out to 2040.

The PSRC Freight Strategy is available at:

((<http://psrc.org/transportation/freight>)) <http://www.psrc.org/transportation/freight>

Additional information on the freight system in King County is available at:

<http://www.wsdot.wa.gov/freight/>

<http://www.wsdot.wa.gov/Freight/FGTS/CountyMaps.htm>

IV. Travel Forecast Summary

The Washington State Growth Management Act (GMA) requires the transportation element of comprehensive plans to include a forecast of traffic for at least ten years based on the adopted land use plan, and to provide information on the location, timing, and capacity needs of future growth (RCW 36.70A.70(6)(E)). It also requires an estimate of traffic impacts to state-owned transportation facilities resulting from the land use assumptions. To meet these requirements, the King County Department of Transportation Road Services Division adopted the Puget Sound Regional Council's (PSRC) Regional Travel Demand Forecasting Model (Travel Model).

The PSRC Travel Model forecasts future travel patterns and conditions within the four counties (King, Kitsap, Pierce, and Snohomish) of the Puget Sound region.³ The Travel Model produces data that are used to analyze the likely impacts of travel forecasts on the region's transportation infrastructure and environment and thus provides the foundation from which the PSRC develops many of its plans, most notably the regional transportation plan, *Transportation 2040*. The Travel Model is used to support the technical analysis of transportation projects and investments under consideration in the region.⁴ In addition to transportation analysis, the travel model also supports growth management activities at the agency.

King County Road Services worked with PSRC modeling staff to run a model scenario with a forecast year of 2031. Raw model output was analyzed by King County planning staff. The forecasted (~~(p.m.)~~) p.m. peak hour (afternoon rush hour⁵) traffic volumes on state facilities were mapped to review performance on state facilities (Figure 1). Modeled traffic volumes and roadway capacities on local roads were also reviewed for indications of potential future congestion. Road segments where traffic volumes exceeded roadway capacities (ratios greater than 1) are were mapped (Figure 2). Planning and engineering staff considered Travel Model analysis and other factors in the development of projects for King County's Transportation Needs Report.

Detailed information on the traffic forecasting model and assumptions used for the Comprehensive Plan are available from the Puget Sound Regional Council.

Puget Sound Regional Council Travel Model information is available at:

<http://www.psrc.org/data/models/trip-based-travel-model/>

More information on Transportation 2040 is available at:

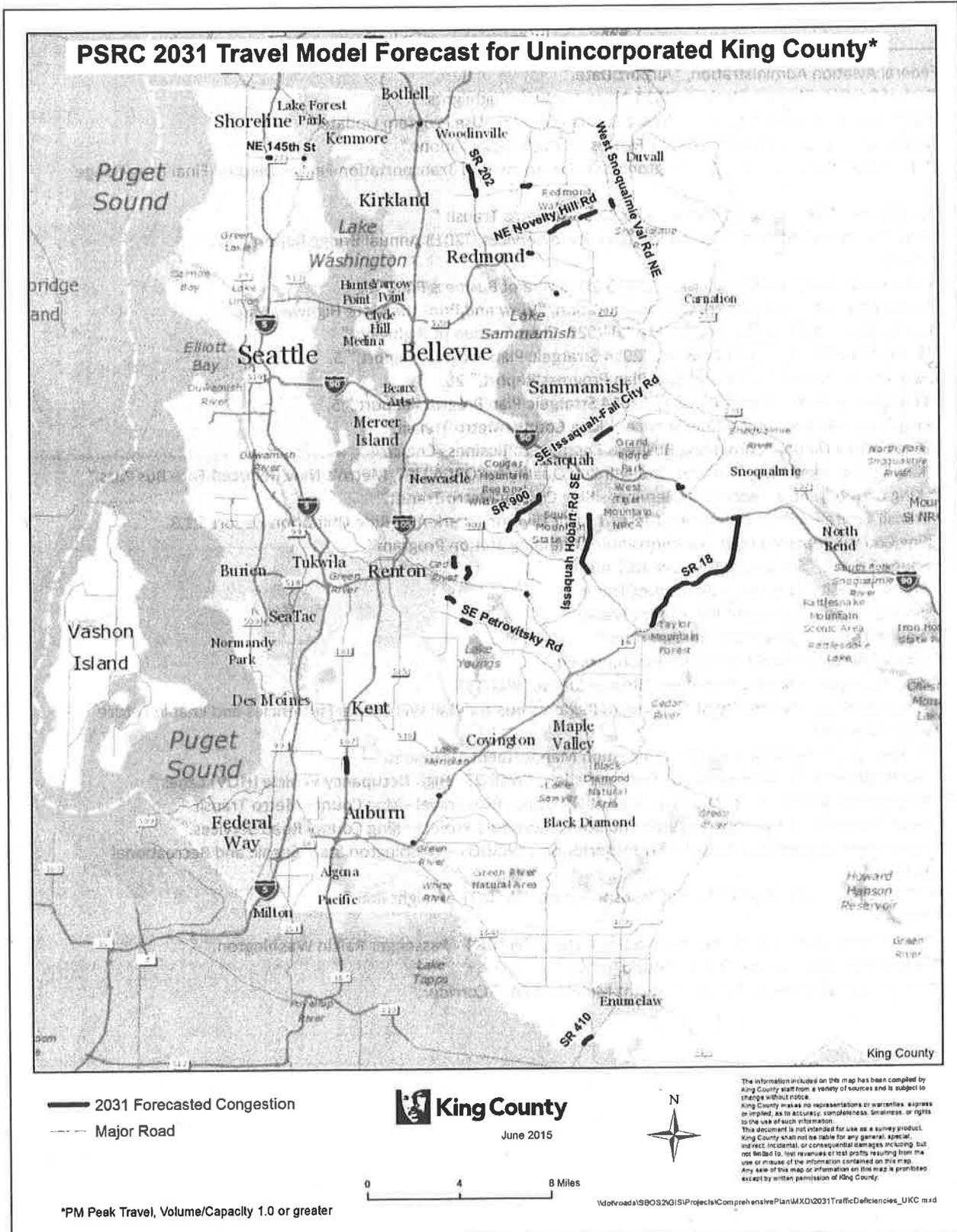
<http://www.psrc.org/transportation/t2040>

³ Puget Sound Regional Council, *Travel Demand Forecasting*, 1.

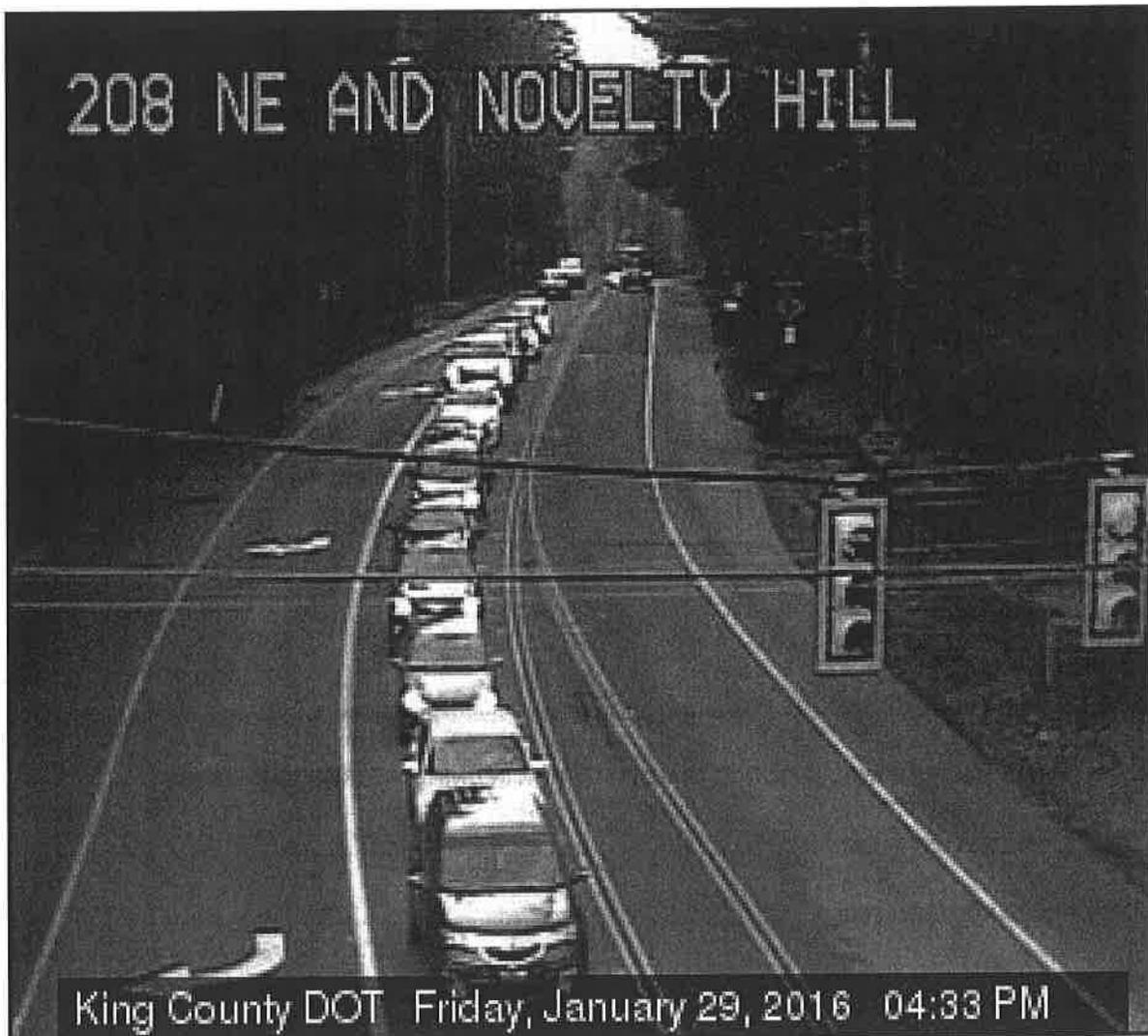
⁴ *Ibid.*, 3.

⁵ Defined by PSRC as 3:00 pm – 6:00 pm

Figure 2



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- ⁱ Federal Aviation Administration, "Airport Data."
- ⁱⁱ Port of Seattle, "Airport Statistic: 2014 Airport Activity Highlights."
- ⁱⁱⁱ Puget Sound Regional Council, "Airport Compatible Land Use Program Update."
- ^{iv} Washington State Ferries, "WSDOT - Ferries - Vehicle Reservations."
- ^v Washington State Ferries, "Washington State Department of Transportation Ferries Division Final Long-Range Plan."
- ^{vi} King County Metro, "About Metro - King County Metro Transit."
- ^{vii} King County Department of Transportation Road Services, "2013 Annual Bridge Report," 3. Ibid., 13.
- ^{ix} King County Road Services Division, "2015-2016 Line of Business Plan," 5.
- ^x Washington State Department of Transportation, "View and Print the State Highway Map."
- ^{xi} Washington State Legislature, "RCW 47.04.020: Classification of Highways."
- ^{xii} King County Metro Transit Division, "2014 Strategic Plan Progress Report," 5.
- ^{xiii} King County Metro, "2013 Strategic Plan Progress Report," 26.
- ^{xiv} King County Metro Transit Division, "2014 Strategic Plan Progress Report," 5.
- ^{xv} King County Metro, "Accessible Services - King County Metro Transit."
- ^{xvi} King County Metro, "Comparing Business Passport to Business Choice."
- ^{xvii} King County Executive, "Find out Today If You Qualify for ORCA LIFT, Metro's New Reduced-Fare Bus Pass."
- ^{xviii} King County Metro, "Accessible Services - King County Metro Transit."
- ^{xix} Transit Route Facilities Group and Metro Transit Division, "Park-And-Ride Utilization Report," 1,3.
- ^{xx} King County Department of Transportation, "Charging Station Program."
- ^{xxi} Sound Transit, "ST Express Bus - SoundTransit."
- ^{xxii} Sound Transit, "Sounder Train - SoundTransit."
- ^{xxiii} Sound Transit, "Link Light Rail - SoundTransit."
- ^{xxiv} Sound Transit, "University Link Extension."
- ^{xxv} Sound Transit, "History: What Voters Approved."
- ^{xxvi} Sound Transit Finance Committee, "Resolution No. R98-33."
- ^{xxvii} King County Executive, "Joint Planning of Region's Bus and Rail Will Create Efficiencies and Enable Future Service Expansion."
- ^{xxviii} Puget Sound Regional Council, "Congestion Management Strategies."
- ^{xxix} Washington State Department of Transportation, "WSDOT - High Occupancy Vehicle (HOV) Lanes."
- ^{xxx} King County Metro, "Bike Parking at Transit Facilities - Bike Travel - King County Metro Transit."
- ^{xxxi} King County Road Services, "Historic and Scenic Corridors Project - King County Road Services."
- ^{xxxii} Washington State Department of Transportation, "WSDOT - Washington State Scenic and Recreational Highways."
- ^{xxxiii} Washington State Department of Transportation, "WSDOT - Freight Rail."
- ^{xxxiv} Ibid.
- ^{xxxv} Washington State Department of Transportation, "WSDOT - Passenger Rail in Washington."
- ^{xxxvi} Sound Transit, "Sounder Train - SoundTransit."
- ^{xxxvii} Puget Sound Regional Council, "Freight Mobility / FAST Corridor."



2016

**Technical Appendix C1:
Transportation Needs Report**

~~((September 1))~~ November 22, 2016



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Chapter 1: Planning Context and Introduction

What Is the Transportation Needs Report and How Is It Used?

The Transportation Needs Report (TNR) is a long-term, comprehensive list of improvements to the roads, bridges and related infrastructure located in unincorporated King County. It includes consideration of significant projects in adjacent cities, counties, and on state highways as they relate to the overall functioning of the transportation system. The transportation needs outlined in the TNR include those that are currently known, as well as those that are forecast due to regionally-adopted targets for growth and development. For the most part, King County Road Services' engineers and transportation planning staff identify project needs based on infrastructure condition, technical assessments, and community input; others are developed based on traffic model data provided by the Puget Sound Regional Council (PSRC).

The TNR is a functional plan of the ~~((King County Comprehensive Plan))~~ King County Comprehensive Plan. Together with the King County Department of Transportation, Road Services Division (Roads) Six-Year Capital Improvement Program (CIP) and the biennial operating budget, it fulfills the requirement of growth management legislation (RCW 36.70A.070) as the transportation capital facilities plan element of the King County

How does this TNR comply with the law?

1. It is based on the land use element of the comprehensive plan.
2. The list of transportation needs and recommended improvements for capacity projects was developed using travel demand forecasts that are based on the regionally-adopted growth targets.
3. It includes a financial analysis that reflects the most recent land use changes, project amendments, costs, and financial revenue assumptions.
4. It documents intergovernmental coordination, with particular attention to potential impacts on adjacent jurisdictions.
5. It includes non-motorized needs (bicycle and pedestrian).

Comprehensive Plan.

Relationship to King County Comprehensive Plan: A primary purpose of the TNR is to fulfill specific requirements of state growth management legislation for comprehensive planning. King County's TNR fulfills these requirements as outlined in state legislation (RCW 36.70A.070 (6)) are:

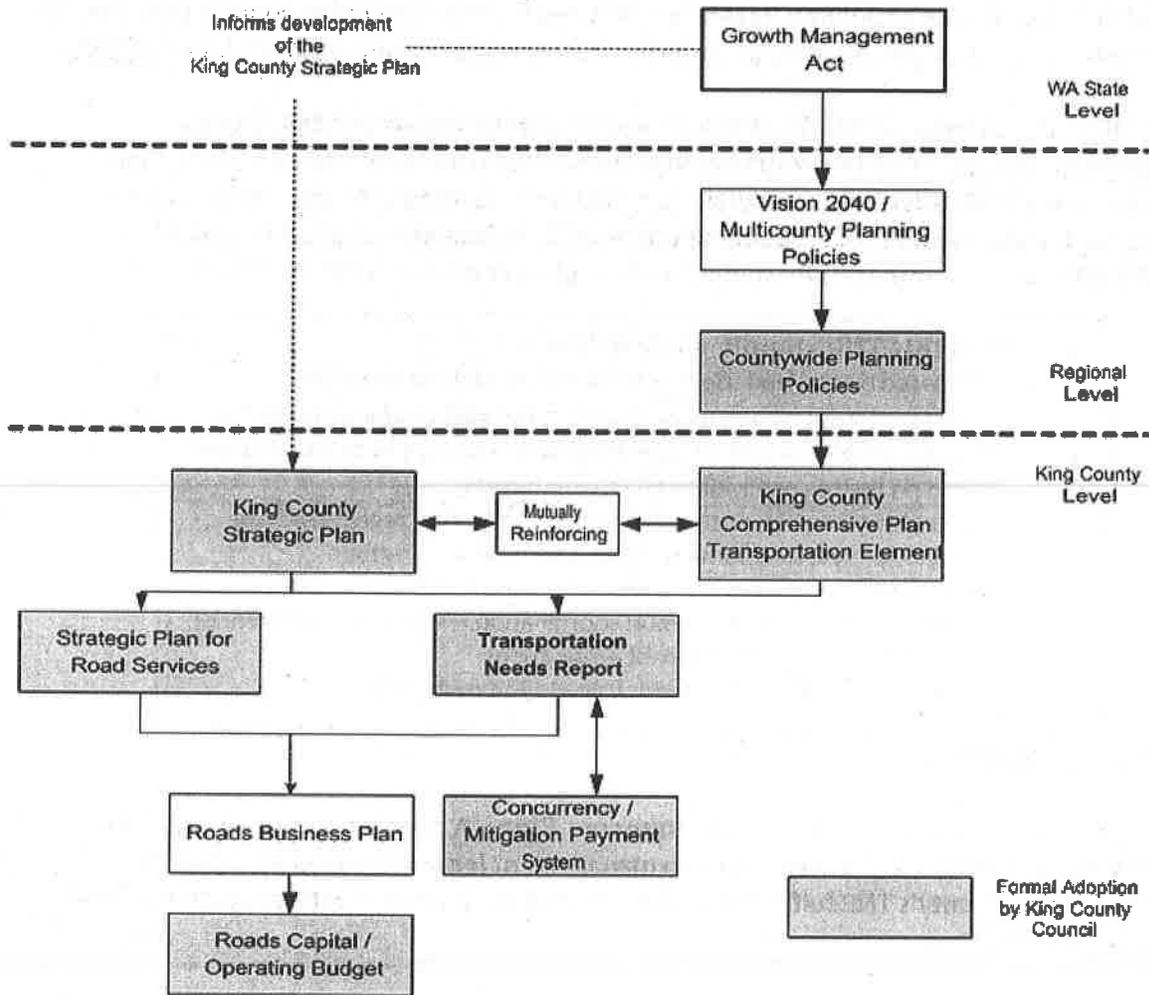
- Specific actions and requirements for bringing into compliance locally-owned transportation facilities or services that are below the Comprehensive Plan established level of service standard;
- Forecasts of traffic of at least ten years based on the adopted growth targets and land use plan to provide information on the location, timing, and capacity needs of future growth;

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- Identification of state and local system needs to meet current and future demands;
- An analysis of funding capability to judge needs against probable funding resources; and
- A multiyear financing plan based on the needs identified.

The schedule for updating the TNR corresponds to major updates of the ~~((Comprehensive Plan))~~ Comprehensive Plan, which occurs every four years. If circumstances warrant, interim updates may be developed and transmitted with the annual ~~((e))~~ Comprehensive ~~((p))~~ Plan technical amendments.

Planning Hierarchy Relationship to Growth Management Planning



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Rural Regional Corridors

Rural Regional Corridors are recognized in the King County Comprehensive Plan as segments of certain arterials that pass through rural lands to primarily connect urban areas. This type of roadway plays a key regional mobility role in the county’s transportation system. While additional capacity is generally prohibited by county policy on arterial roads in the rural area, a limited exception is made for Rural Regional Corridors. These corridors may receive capacity improvements if the increased capacity is designed to serve mobility and safety needs of the urban population while discouraging inappropriate development in the surrounding Rural Area or natural resource lands.

Rural Regional Corridors must be classified as Principal Arterials and carry high traffic volumes, defined as a minimum of 15,000 Average Daily Trips. They also have at least half of their PM Peak trips (the evening commute) traveling to cities or other counties. They connect one urban area to another, or to a highway of statewide significance that provides such connection, by traversing the rural area.

Based on the criteria in the Comprehensive Plan, the following King County unincorporated area roadways currently quality as Rural Regional Corridors:

	Woodinville Duvall Road	Novelty Hill Road	Issaquah Hobart Road	Avondale Road
Limits	Woodinville city limits to Duvall city limits	Redmond city limits to W. Snoq. Valley Road	Issaquah city limits to SR-18	NE 116 th to Woodinville-Duvall Road
Functional Class	Principal Arterial	Principal Arterial	Principal Arterial	Principal Arterial
Average Daily Trips (ADT)	20,000	20,0000	18,000	16,000

Transportation Planning and Funding:

The TNR evaluates the difference between identified transportation needs and future revenues for King County. This analysis augments recent work undertaken by Roads to assess the County’s ability to maintain the condition of its roadway assets given declining revenues. Projections illustrate that Roads’ revenues will not keep pace with maintenance and preservation needs for King County’s system given declining federal gas tax revenues and insufficient local property tax and other state revenues.

Most of the federal funding for transportation to the region is allocated via the ~~((Puget Sound Regional Council (PSRC)))~~ PSRC which is the Municipal Planning Organization for King, Snohomish, Pierce and Kitsap Counties. PSRC developed grant criteria focuses on capacity and mobility projects primarily in identified urban centers. Upon completion of the few remaining annexations of urban areas into cities, King County Road’s service area will be the rural area. Given the significant decline in revenues, the division is focused on core life safety, regulatory compliance and the maintenance and preservation of existing infrastructure which leaves no funding to add capacity to King County’s unincorporated road system. Over the past two funding cycles, King County Roads has been unsuccessful in receiving funding for rural projects

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in countywide competitions. Rural projects do not compete well against urban projects located in and around PSRC-identified centers. The majority of federal funding allocated to the region is allocated to urban projects that serve centers, fulfilling Growth Management Act goals. The PSRC does allocate funds exclusive to the rural area for rural roadway projects, but the amount is a little over \$3 million every two years. By comparison, the total amount of federal funds awarded to all of the jurisdictions in King County amounts to between \$50-55 million, every two years. Given these criteria and funding limitations, the county expects revenue from federal grant funds will continue to decline.

Historically, 50+ miles were overlaid annually to preserve roads near the lowest lifecycle cost. Based on current funding levels, after the 2015-2016 biennium, overlay funding will need to be funded primarily by grant funds. In the past two grant cycles (2013 and 2016), King County received funding to overlay eight miles of road in unincorporated King County.

The \$16 billion((,)) 2015 state transportation package included close to \$1M per year for unincorporated King County roads. Additional funds allocated to the State Transportation Improvement Board (TIB) and the County Road Administration Board (CRAB) for transportation projects are not projected to generate additional revenues due to the allocation methods and grant criteria that govern awards by these agencies. CRAB funding for counties is constrained by Washington Administrative Code that limits allocations based on lane miles as opposed to use.

Based on revenue projections, King County Roads does not have the funds to address the majority of the projects contained in the TNR. When capital funds are available, they will be directed to safety, regulatory and preservation projects consistent with Roads Strategic Plan and Line of Business Plan.

Coordination: The TNR helps to coordinate transportation improvements connecting King County with other jurisdictions including the Washington State Department of Transportation (WSDOT), adjacent cities, and counties. The Puget Sound Regional Council model incorporates the location and type of capacity projects anticipated by other agencies. The model helps King County understand how the overall transportation system will function in the future, indicating where unincorporated capacity improvements may be needed. By clearly showing the scope, location and cost of unincorporated road system projects, the TNR provides other jurisdictions with information to use in appropriately coordinating connecting systems.

Annexations: Cities considering annexing portions of unincorporated King County can refer to the TNR for identified road improvements that their city may need to address in the future.

Development Review: The TNR serves as a source of information in the review of proposed land developments and in determining appropriate mitigation measures required as a condition of new development approval. The County's Mitigation Payment System (MPS) uses the TNR to

help identify growth-related projects for the impact fee system((:)); however, given the lack of funding for capacity improvements((:)), the MPS system is going to need a major overhaul since there will soon be no funded growth-related road projects on which to charge impact fees.

Road Vacation: Property owners can petition King County to have portions of the County's unused road rights-of-way sold to them if the property is not needed for current or future transportation purposes. The TNR is used to identify future projects on the road system and is one tool in the road vacation process.

How is the TNR put together?

The development of the TNR is part of a comprehensive planning process guided by state growth management legislation. This process links the guidance of the King County ((e))Comprehensive ((p))Plan and the *Strategic Plan for Road Services* with the development of the TNR, the Roads Six-Year CIP, and the Roads biennial budget.

Roads' Strategic Plan focuses on the critical funding problem coupled with a backlog of road system maintenance and preservation needs. While the Road Services Division recognizes that it may not be able to fully accomplish all of the goals and strategies suggested in the strategic plan, the plan prioritizes work that meets the most critical needs within available funding and resources. It places high priority on immediate operational safety, regulatory compliance (clean water activities), and the maintenance and preservation of infrastructure. The goals identified in the strategic plan are as follows (in order of priority):

The Strategic Plan for Road Services (SPRS) articulates the division's mission and vision. It focused direction for an approximately ten year time frame by aligning employees, services, and programs with the overarching goals of King County. The plan informs decisions by the King County Executive and Metropolitan King County Council on matters of policy, operations, and budget. SPRS provides a framework to manage the division's programs and services.

- 1st Prevent and respond to immediate operational **life safety** and property damage hazards.
- 2nd Meet **regulatory requirements** and standards in cooperation with regulatory agencies.
- 3rd Maintain and **preserve the existing roadway** facilities network.
- 4th Enhance **mobility** (movement of people and goods) by facilitating more efficient use of the existing road system.
- 5th Address roadway **capacity** when necessary to support adopted growth targets.

Roadway Prioritization:

A key component identified in the strategic plan was the establishment of a service strategy. The plan creates a triaged approach toward maintaining and preserving infrastructure. According to the plan, the most-used arterials would receive the highest level of maintenance and preservation, storm response and snow and ice removal, while the lowest-priority roads could receive less service. Core Safety and regulatory compliance are the county's highest priorities and are accomplished regardless of the priority tier of the roadway.

The tiers are types of roads defined using objective criteria.((-)) Roads are categorized according to volume of use by motorists, safety requirements, detour length, and whether the road is considered sole-access, a lifeline route or important for buses. More information on the road tier system can be found by visiting:

<http://www.kingcounty.gov/transportation/kcdot/Roads/NewServiceLevels.aspx>

The tier information establishes the criticality of the road to the operation of the network. Particularly given limited resources, the strategic plan directs that the most critical roads are prioritized for funding and inclusion in Roads' Capital Improvement Program.

Service Levels for Unincorporated King County Roads

Tier 1

Heavily traveled; connect large communities, major services, and critical infrastructure.

Tier 2

Highly used local roads; serve local communities and large residential areas.

Tier 3

Highly used local roads that serve local communities and large residential areas.

Tier 4

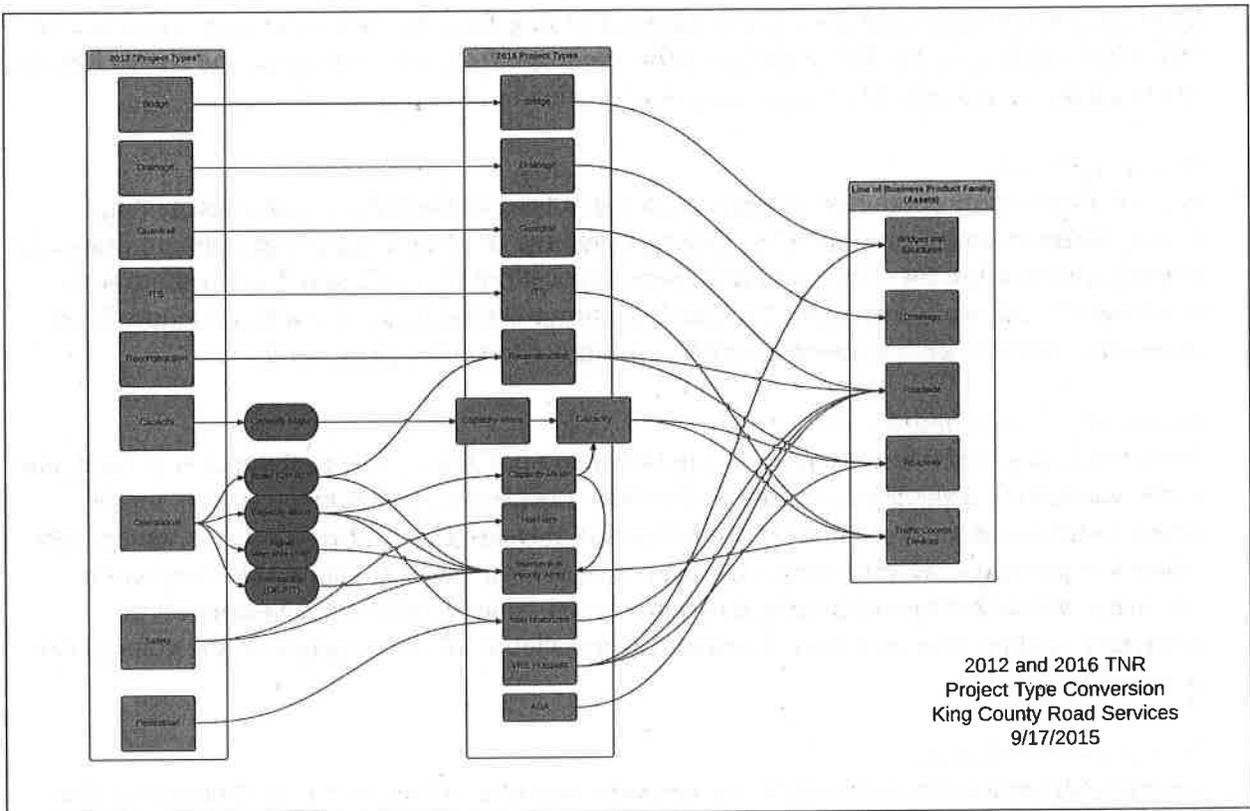
Local residential dead-end roads with no other outlet.

Tier 5

Local residential roads that have alternative routes available for travel in case of road closures.

How Has the 2016 Transportation Needs Report Changed?

Organizing assets by Road Services Line of Business Plan product families:
Previous versions of the TNR organized projects into a series of project types. This version aligns the projects into the five product families identified by the Road Services Division 2015-2016 Line of Business Plan: Roadway, Roadside, Bridges and Structures, Traffic Control Devices and Drainage. ((This)) The following graphic illustrates the migration of projects from previous project types to the Business Plan product families into which the projects in this TNR have been organized.



Including maintenance - programmatic/operating expenditures:

Road Services has developed various programs to respond to the emergent and routine needs of its assets. Descriptions of these programmatic maintenance and operations activities have been added to this version of the TNR to illustrate work being done by the agency, outside of capital projects that is funded by the operating budget.

Safety Projects:

Road Services analyzes accident data to determine the location of high accident locations. Once locations have been identified, projects are then designed to remedy any safety problems where possible. In 2015, a High Accident Location and Road Segment Analysis was done that identified locations with high accident rates (number of accidents/average daily traffic).

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Accident rate is being considered in identifying the location of safety projects eligible for federal funding, but proposal projects to address safety problems will not be completed until spring 2016. The priority process for safety projects is discussed further in Chapter Two of this document.

Capital Project Completions:

Capital projects completed since the adoption of the 2012 Transportation Needs Report were deleted from the needs list.

Annexations:

Cities continue to annex portions of unincorporated King County. When annexed areas include TNR project locations, the TNR project is either removed from the Transportation Needs Report or the project is shortened to only include that portion in unincorporated areas.

Street Lighting:

In 2014, King County conducted a study on all street lighting owned and operated by King County Roads in unincorporated King County, called the LED Street Light Replacement Study. As engineers conducted the study, they documented locations in the County Road System with turn lanes that do not comply with Section 5.05 (Street Illumination) of the King County Road Standards. Projects were added to the TNR to address these turn lane needs.

Signal Warrant Priority Array:

The latest analysis of intersections was completed in April, 2015. Intersections with at least one traffic warrant for a signal were added to the TNR. Locations which previously met, but no longer meet the Manual on Uniform Traffic Control Devices (MUTCD) warrants for signals were deleted. In particular, locations that no longer met the four MUTCD volume warrants were removed. When the highest priority locations receive funding, they will be evaluated to consider a solution that may result in either the installation of traffic signals or the construction of roundabouts.

Non-motorized Projects:

For this TNR update, non-motorized projects were re-evaluated based on the Comprehensive Plan policy guidance and assessment of current conditions. Road Services staff reviewed each project and considered factors including potential non-motorized travel destinations, traffic volumes and speeds, existing shoulder widths, and proximity of a school or other community gathering place. Road staff also researched resident requests for sidewalk locations and, where appropriate, included those projects in this edition of the TNR. ~~((In response to Council direction for the creation of a Sub Area Plan, the Skyway/West Hill community produced a list of eight non-motorized capital projects that meet county criteria and have therefore been included in this TNR.))~~

Drainage Projects:

Drainage projects have been divided into three primary categories: 1) Large-scale preservation projects (previously included in the TNR); 2) Small-scale routine maintenance; and, 3) Small-

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scale drainage preservation projects. Two of the three categories of projects have been added to the 2016 TNR. Routine drainage maintenance needs are captured by description in Chapter Two.

Roads has embarked on an asset management program identified in the strategic plan that seeks “((-))to make the most cost-effective operating and capital investments—from maintenance through preservation and replacement—at whatever funding level is available.” Drainage needs are identified in conjunction with other roadway assets. The first step in developing an inventory of drainage needs is to assess the condition of the infrastructure. In 2015, a pilot project was launched to develop a methodology for screening and scoring the condition of the pipes, vaults and ditches that make up part of the drainage infrastructure in the right-of-way. As a result, additional drainage needs will be identified for future editions of the TNR.

Chapter 2: How Road Services Prioritizes Unincorporated King County's Roadway Assets

Roadway

The Roadway category of assets is one of five product families identified in the division's Line of Business Plan. This category of assets includes the drivable surface and supporting road base -- including several layers of gravel, dirt, and other materials of the road. Road pavement protects against deterioration of the road base that is the structural integrity of the road. If the road base becomes deteriorated, no amount of repaving will keep the surface smooth and repaving will not last as long as expected.

Roadway Facts

Nearly 1500 miles (more than the distance from Canada to Mexico)

About 1/3 of the road system consists of arterials; of which 320 miles require reconstruction.

Over 1 million trips per day occur on King County ((R))roads.

This section discusses how stand-alone projects are prioritized, the tasks associated with maintenance and operations and the programs associated with managing ((U))unincorporated King County's roadways. Needs associated with traffic impacted by the design constraints of the road prism are discussed in the Traffic Control Devices Section.

Pavement Inspection and Testing

Pavement and road deterioration continues from the impacts of stormwater, weather changes and growing traffic volumes. Pavement condition index scores and deflection testing data reflect a snapshot in time but, over time, give you a rate of deterioration.

Pavement Condition Index (PCI): PCI is a scale of pavement condition rating ranging from 0 to 100, with 0 representing the worst and 100 representing the best possible condition. Road Services categorizes pavement condition as: Very Poor (PCI<25), Poor (PCI 25-49), Fair (PCI 50-70), and Good to Excellent (PCI 71-100). Ratings are based on a visual assessment of road surface conditions therefore may not accurately indicate the condition of the under laying base and sub-grade of the pavement.

The state County Road Administration Board requires the County to rate and report on pavement condition in order for the County to receive state gas tax revenues.

Historically, Road Services conducted field assessments of arterials on a routine schedule to visually determine the condition of the pavement by walking all of its arterials on a rotating

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basis. In some cases, advances in and access to current satellite imagery such as Google Street View allows visual assessments to be conducted over the internet, saving labor costs.

PCI scores guide Road Services' engineers toward pavement preservation measures; whether crack sealing, overlay, or pavement rehabilitation.

Deflection Testing: Between 2003 and 2012, Roads conducted deflection testing on all of the County's arterials to evaluate the subsurface condition. The deflection testing (Falling Weight Deflectometer testing) consisted of applying a seating drop and one loading drop. The spacing between tests was about 200 feet. In the 2003 and 2007 deflection testing efforts, core samples of the road material were collected and analyzed. Samples were analyzed for surface composition, base course thickness, composition and course condition, subgrade soil type, and subgrade strength.

Deflectometer testing was done using trailer mounted equipment consisting of a load package, load plate, load cell, and geophones referred to as deflection sensors. The load package was made of steel plates balanced on either side of the load cell and tower assembly. This package was raised up to a set height and dropped onto the load plate. During the loading of the plate, the load cell records the amount of load applied to the plate (over a period of time) and the maximum load is recorded. Once captured, the deflectometer data was analyzed using the AREA and EVERCALC 5.0 programs to determine the condition of the roadway. The data and calculated parameters were used to identify sections of roadway categorized as having low structural value (i.e. candidates for road reconstruction or rehabilitation) and to provide input for pavement rehabilitation or overlay.

Pavement Preservation Program

In light of declining roads revenues, Road Services has revisited how it manages pavement preservation. Beginning in 2015, the program is managed by a team of technical experts that, instead of using strictly overlay, research and employ other cost-effective rehabilitation and preservation approaches(,) to collect cost-specific data from rehabilitation and preservation measures performed(,) and to process road condition data. Road Services uses the County Road Administration Board (CRAB) visual data collection system (VisRate) to select potential candidates for either preservation or reconstruction. These road segments are either placed into Roads' Maintenance Section's High Risk Roads Preservation or the Roads' Countywide Preservation lists. The amount funded every year (~~form~~) from these lists depends upon available revenue.



Approach

Roads' Pavement Preservation Program has adopted a new approach to managing King County's roadway system given that funding levels are insufficient to manage the system in a traditional way – repaving at optimal times to maximize lifecycle and minimize cost. By conducting minor rehabilitation and maintenance activities, Roads' pavement preservation approach seeks to delay the decline of pavement surface conditions and extend service life. Road Services uses a variety of pavement management strategies and processes in the most cost-effective way possible toward managing unincorporated roadways.

- ◆ Crack sealing, patching, minor reconstruction, seal coatings, paving, and shoulder restoration.
- ◆ Implement pavement management techniques according to their appropriate use for materials, condition, structure, Road Services' tier, and road classification.
- ◆ Conduct a cost-benefit analysis to guide decisions regarding the use of these techniques.
- ◆ Collect life-cycle costs for each resurfacing type; costs of maintenance and rehabilitation activities to be updated at the end of each construction season.

King County's arterial road system will be subject to considerable deterioration over the next ten years due to recent and projected lack of resources to invest in pavement maintenance or reconstruction. Portions of the system may be subject to speed limitations or partial closure in the future.

Cost and performance data regarding both contracted work and work performed by County forces will be updated and compared to the data available from peer agencies.

- ◆ Conduct an annual review of Washington State Department of Transportation and other peer agencies to identify those agencies' use of different types of overlay and seal technologies. Any successful new technologies will be evaluated to determine whether they align with Roads' goals.
- ◆ As data accumulates in the new asset management system, Road Services will be able to use the data to establish performance measures and targets, which will better guide decision making.
- ◆ Prepare yearly accomplishment report for the Governmental Accounting Standards Board (GASB) and both projection and accomplishment reports for the County Road Administration Board (CRAB).

Prioritization

The process by which roadway preservation candidates are prioritized conforms to the priority matrix and tiered service strategy established by Roads' Strategic Plan. The allocation of available funding is further prioritized through Roads' Tiered Road Classification (Tiers 1, 2, and 4 receive the highest priority; Tiers 3 and 5 the lowest). Candidates for pavement preservation will be selected based on these priorities; the lack of available funding means, however, that portion of the County's roadway network will not be adequately preserved.

Selection

Selection of roadway candidates for preservation starts with the collection and entry of visual condition data into the Division's Comprehensive Pavement Preservation List (CPPL), which provides the specific roadway condition data needed to assist Engineers in establishing smaller Year-, Tier-, or PCS score-specific candidates' lists. These lists are shared and reviewed with the Maintenance Section to coordinate pavement preservation efforts throughout the County.

Roadway Reconstruction

Roadway reconstruction involves full removal and replacement of the surface layer, road base, and ancillary structures (culverts, guardrail). Reconstruction projects follow the same prioritization matrix as described for the Pavement Preservation Program, except that average daily traffic and truck traffic is also evaluated for roadway segments identified for full reconstruction. Segments with higher, heavy truck traffic are anticipated to degrade at a quicker rate, increasing the priority of the road reconstruction need. This heavy truck traffic is typically on roads designated as a freight corridor for the transportation of goods or provides access to facilities that routinely uses heavy trucks, such as gravel mines, transfer stations or farm-to-market roads.

Prioritization Process Outline:

1. Process visual condition rating data.
2. Update the CPPL as new data is received.
3. Create candidates list to facilitate collaboration with the Maintenance Section, the development of Capital Improvement Program (CIP) projects, and potential federal and state grant funding calls.
4. Evaluate potential preservation options based on projected funding.
5. Publish final candidates' list for High Risk Roadway Candidates((-)); implemented by Maintenance staff.
6. Develop the candidates' list for upcoming year; implemented as preservation projects and done by a contractor.

Did you Know?

Many of the County's older roads were built upon wood, rock, and brick; rather than being engineered with modern materials.

In 2007, as part of Road Services' deflection testing, 82 road segments were identified as having high deflections requiring further analysis to determine if full road reconstruction was needed. Following the analysis, a preliminary scope of work and cost estimate was developed for the reconstruction of 30 road segments; which were subsequently added to the 2008 TNR. Additional deflection testing (completed in 2012), routine pavement condition testing, and other studies have identified new reconstruction projects and roads have been rehabilitated or annexed

Since 2007, many of the road segments identified in the 2016 TNR as having reconstruction needs have been temporarily preserved using the approaches listed above; specifically pavement overlay, rehabilitation, or crack sealing and patching. Depending on the original road

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design, these preservation measures can extend the life of the road three to ten years, until funding is available for full reconstruction.

Roadway Maintenance and Operations

The roadway enables the 24/7 movement of people and goods; serving residents, commerce, emergency services, and other users. Cars, trucks, buses and bicycles all use the roadway for their travel needs. Traffic volume and vehicle weight, especially heavy trucks and buses, plus water and weather, all impact the rate of deterioration of the roadway asset.

Road Services employs programs that facilitate routine inspections, maintenance, repair, and operation of the roadway. These programs fall into the following categories:

Small Surface Repairs: Pothole filling; square cut, skin surface and grinder patching; acute pavement surface repair; crack sealing and pouring; curb and gutter replacement and repair((,)); and gravel roadway grading and patching.

General Roadway Maintenance: Routine, but important safety and environmental compliance work; such as sweeping and dust control. This removes leaves, rocks, fallen trees and debris from the roadway keeping it safe. Prompt cleaning also prevents dirty sediments from flowing into creeks and streams, polluting them and endangering salmon and water quality.

Storm - Quick Response: Work associated with any unanticipated damage and emergency repairs related to storm events, landslides, or severe roadway condition deterioration such as snow and ice control, de-icing applications, and storm washout repair from flooding.

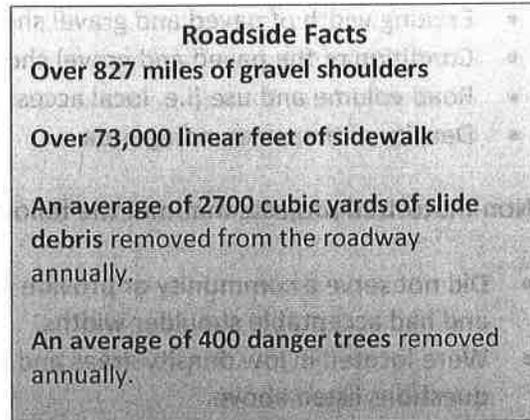
Gravel Road Fact
Gravel roads need to be graded seven times a year to remove ruts and corrugations in the gravel roadway surface.



Roadside

Roadside is another of the five product families in Road Services' Line of Business Plan. The roadside category of road infrastructure includes road system features and components within the road right-of-way but outside the travel lanes of the road. Drainage facilities may be located in the roadside area, but are treated as a separate category. Roadside infrastructure includes:

- Non-motorized assets, including sidewalks, pathways and American Disability Act compliant ramps to enhance pedestrian safety and mobility;
- Road shoulders to provide space for slow moving and disabled vehicles, non-motorized travel, construction and maintenance activities and emergency and police activities;
- Guardrail to mitigate impacts to cars that ((run off the road)) run off the road and help prevent vehicles from colliding with dangerous obstacles or vulnerable areas; and((,))
- Landscaping and vegetation that includes landscaped walls, slopes and planters.



Non-Motorized Safety and Mobility

2015 Non-Motorized Evaluation

For the 2016 TNR, Roads reviewed the previous list of non-motorized projects for reasonable need based on the answers to the following questions regarding corridor use:

- Does the corridor serve transit?
- Does the corridor have logical termini (i.e. joins into another non-motorized facility)?
- Does the corridor connect to logical and commonly accessed destination points such as parks, libraries, trails, community centers, shopping and commercial areas?
- Does the corridor provide a community walking or biking school route? Is the segment close to a school?
- Will the proposed scope of work improve upon the existing conditions?



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Once the non-motorized “uses” of the project corridor were determined, the existing conditions of the corridor were reviewed for:

- Existing width of paved and gravel shoulders.
- Condition of the paved and gravel shoulders.
- Road volume and use (i.e. local access vs arterial).
- Density of the surrounding area.

Non-motorized projects that met the following criteria were removed:

- Did not serve a community or provide a connection to other facilities or destination points; and had acceptable shoulder widths.
- Were located in low density areas and on low volume roads; and answered “no” to the use questions listed above.
- Were either annexed by adjacent cities or constructed by Road Services since adoption of the 2012 TNR.

~~((The 2016 TNR also includes newly identified projects along with new projects identified by the Skyway / West Hill sub area planning process. This sub area planning process was conducted as part of the King County Comprehensive Plan update.))~~

Road Services solicited King County Parks for projects that would modify the roadside infrastructure. That list of projects has been included here for planning purposes but because they are captured in King County Parks' needs list they have not been included in the TNR project lists or ~~((mapped))~~ maps.

King County Parks

Proposed Future Projects with Potential King County Roads Overlap:

Trail Project	Location	Description	From	To	Comment
Green to Cedar Rivers Trail (South Segment)	Maple Valley/Black Diamond Green River Valley at 218th Ave SE	Trail sidepath or other trail/road ROW project	218th Ave SE at Green to Cedar Rivers Trail	SE Green Valley Road	Current feasibility study uses 218th Ave SE as a possible route for the trail in south Black Diamond to SE Green Valley Rd
Green to Cedar Rivers Trail (South Segment)	Upper Green Valley at 218th Ave SE	SE Green Valley Road crossing			Current feasibility study would have the trail cross SE Green Valley Rd at 218th Ave SE
Green to Cedar Rivers Trail (South Segment)	Upper Green Valley at SE Green Valley Road	SE Green Valley Road Sidepath	218th Ave SE	SE Flaming Geyser Road	Current feasibility study envisions sidepath along SE Green Valley Road from 218th Ave SE to SE Flaming Geyser Rd

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Trail Project	Location	Description	From	To	Comment
Green River Trail, North Extension (Green to Duwamish)	Tukwila and Unincorporated King County at W. Marginal Place	W. Marginal Place Sidepath or other trail/road ROW project	S 102nd Street	S. Director Street	Feasibility study envisions extending the Green River Trail along W. Marginal Place between Cecil Moses Park in Tukwila to Seattle's South Park community
Snoqualmie Valley Trail, Snoqualmie Mill Gap	Unincorporated King County, Snoqualmie River Bridge at SE Reinig Rd	SE Reinig Road Trail Bridge crossing			New trail bridge structure will be needed to cross SE Reinig Rd to facilitate trail development through the Mill Gap from the Snoqualmie River Bridge. An interim at-grade crossing may be used.
Green River Trail, Phase 2	S. 259th Street, south Kent at Green River Trail	Green River Trail, Phase 2 project at S. 259th Street	S. 259th Street	Existing Green River Trail	ROW improvements may be needed to transition trail segment to street
Green River Trail 2.2	S. 259th Street, south Kent at Green River Trail	Trail sidepath or other trail/road ROW project	S 259th Street at Union Pacific Railway bridge	S 259th Street at Green River Trail Phase 2	Project assumes that S 259th Street ROW will be used for a sidepath between the UP RR bridge and the proposed Green River Trail, Phase 2
Green River Trail, Phase 3	Green River Road, Unincorporated King County	Trail sidepath or other trail/road ROW project	Green River Road at Green River Trail, Kent	Green River Road at S 277th Street	Alternative concept for this trail segment would cross Green River Road where the existing Green River Trail meets the road in south Kent, cross the road, then use Green River Road ROW for sidepath segments to S 277th Street bridge
Green River Trail, Phase 5	Green River Valley	SE Green Valley Rd sidepath or other trail/road ROW project	SR-18	SE Flaming Geyser Rd	Upper Green River Trail concept would develop a sidepath along SE Green Valley Road and the Green River
East Plateau Trail	Unincorporated King County near Klahanie; SE Duthie Hill Road near SE Issaquah-Fall City Road	SE Duthie Hill Rd, signalized crossing and other ROW improvements			Likely signalized crossing of SE Duthie Hill Road near SE Issaquah-Fall City Road to access Duthie Hill Park and continue trail to the northeast

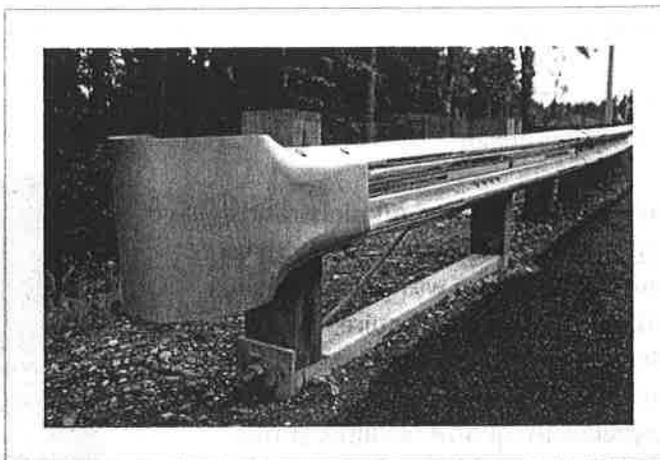
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Trail Project	Location	Description	From	To	Comment
East Plateau Trail	Unincorporated King County west of Trossachs Blvd SE	SE Duthie Hill Rd Trail crossing and sidepath and/or other trail/road ROW project	Duthie Hill Park west of Trossachs Blvd SE	Trossachs Blvd SE	Planning envisions the trail existing north entrance of Duthie Hill Park and running as a sidepath in SE Duthie Hill Road ROW before crossing at the intersection with Trossachs Blvd SE and continuing north along Trossachs Blvd
Landsburg-Kanaskat Trail	Landsburg Rd SE at Landsburg	Landsburg Rd SE signalized crossing			Likely signalized crossing of Landsburg Road SE from existing Cedar River Trail
Tolt Pipeline Trail and Bridge – Snoqualmie River	W. Snoqualmie Valley Rd NE north of NE 124th Street	W. Snoqualmie Valley Rd NE signalized crossing and/or other trail/road ROW project			Likely crossing of W. Snoqualmie Valley Road to continue trail to the Snoqualmie River
Green to Cedar Rivers Trail (South Segment)	Maple Valley/Black Diamond Green River Valley at 218th Ave SE	Trail sidepath or other trail/road ROW project	218th Ave SE at Green to Cedar Rivers Trail	SE Green Valley Road	Current feasibility study uses 218th Ave SE as a possible route for the trail in south Black Diamond to SE Green Valley Rd

Roadside Barriers; Guardrail

Road Services uses a quantitative methodology for identifying and ranking potential roadside safety mitigation sites into three categories: New barriers, retrofits to existing barriers, and bridge rail upgrades.

Risk potential and severity are the primary considerations when considering guardrail prioritizations. Risk is a function of the probability associated with vehicles running off the road. Severity is the quantitative potential for personal injury if a ~~((run-off-the-road))~~ run-off-the-road accident were to occur. Factors included in the analysis include accident data, average daily traffic, road functional classification, corridor geometry, bridge geometry, speed limit, need as defined by embankment slopes, and roadside obstacles. The algorithms developed to prioritize the retrofit of existing barriers and upgrades to bridge railings incorporate parameters for existing barrier and rail deficiencies.



New Barrier Locations – The sources for establishing potential new barrier locations include:

- Locations not yet built from the existing barrier priority array~~((-))~~; and
- A comprehensive roadside hazard inventory that was recently completed on the County arterial roadway system~~((;))~~.

Barrier Retrofit – All sites with existing roadside barriers that are not compliant with current standards were included as candidates for barrier retrofit. About half of the existing non-compliant barriers were determined to have deficient crash-worthy end terminals. Risk exposure and the degree of deficiency are the primary considerations in the prioritization process for barrier retrofits. The severity factor was not used because it is assumed that all barrier locations were warranted.

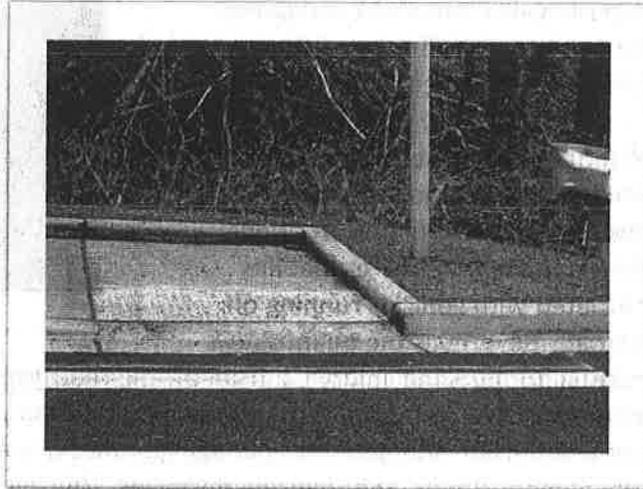
Bridge and Culvert Rails – All bridges and culvert crossings maintained by King County were included as candidates for bridge rail upgrades. Many of the candidate bridges were built prior to the requirement of bridge rails established in 1964. The bridge rail array identifies locations with safety deficiencies and prioritizes their upgrade. Three specific bridge deficiency and difficulty factors were established: ~~((S))~~ structural deficiency, difficulty of upgrade, and end transition deficiency. In addition, a risk potential factor (average daily traffic) and a severity factor (posted speed limit) were included.

Priority arrays were developed for each of the three categories of barrier using the appropriate factors and algorithms. Each priority array was fully tested following development. Statistically

valid sample sizes were developed for each array, and county engineering staff field reviewed and ranked the sites. In each case, rankings correlated 90% or better with the results of the priority arrays.

Americans with Disabilities Act (ADA) Program

The Federal Highway Administration (FHWA) requires compliance with the federal, American with Disabilities Act (ADA). Compliance requires that any alterations to a roadway intersection, including simple overlay, can trigger upgrades for all ADA facilities at the intersection such as curb ramps, push buttons and auditory devices at cross walks to accommodate people with disabilities.



Road Services expects to complete a complete inventory of Americans with Disabilities Act location needs by the end of 2017. The inventory is being conducted using internet mapping resources in addition to field visits. This year, the division will be working to complete an ADA Transition Plan, an element required by FHWA. The plan will attempt to quantify the ADA need and formalize Road Services strategy toward addressing those needs. Since neither the plan nor the inventory is complete, the 2016 TNR does not contain any ADA capital projects.

Roadside Maintenance and Operations

Maintenance and operation activities in and along roadsides are done to enhance pedestrian safety and mobility on pathways and sidewalks and to mitigate the impacts of run-off-the-road collisions from barriers. Properly maintained roadsides have good sight distance and are free of hazards, obstructions and vegetation. The roadside area provides space for vehicles and non-motorized users while mitigating the slide and washout risk of the roadway from hillsides alongside the road.

Slope and shoulder mowing serves a critical safety function by removing vegetation from lines of sight, from blocking visibility of traffic control devices, and from obstructing pedestrian walkways. Roads current funding has reduced the frequency of slope and shoulder mowing activities.

Road Services maintenance and operations employs a continuous cycle of inspections, maintenance, repairs, and replacement of/improvements to its roadside features. These programs fall into the following categories:

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- **Vegetation Management** includes mowing and maintaining trees, brush, and natural areas on the roadside to provide clear sightlines for drivers, improve drainage, and to keep traffic control signs, wayfinding signs, and traffic signals from being obscured. Overgrown vegetation on sidewalks, shoulders, and other walkways can lead to pedestrians walking in the roadway, and dangerous or downed trees can block roadways. Noxious weed control and shoulder/roadside spraying is also employed.
- **Clear Zone Safety** addresses federal mandates for removing, retrofitting or re-engineering objects in the roadside clear zone (the area within ten feet of the outside edge of travel lanes), including but not limited to: Repair of sidewalks and walkways, guardrail maintenance, and removal of objects or structures that encroach into ~~((R))~~ roads right of way such as illegally placed fencing, mailboxes and other structures.
- **Shoulder Cleaning and Restoration** involves the maintenance of gravel shoulders, including gravel patching, grading and restoration~~((;))~~, and landscape maintenance. Maintaining shoulders prevents standing water and reduces deterioration of the roadway.
- **Storm Response** involves response to slide events, including bank stabilization, material removal and disposal, and repairs. Storm response activities include a preventative maintenance program that identifies areas with greatest washout risk, where measures are implemented to prevent future damage. Most critical washout repairs are made immediately, while others take more time to complete.
- **Minor maintenance** for roadside features~~((,))~~ includes:
Repair or replacement of rock walls, gabion retaining walls and fences, hazardous material and roadside debris/litter removal.

ROADSIDE FACT
Gravel shoulders should be maintained/restored every 2-years.

Traffic Control Devices

King County's traffic code (Chapter 46.04, King County Code) is based on the Washington Model Traffic Ordinance (Washington Administration Code Chapter 308-330) which is, in turn, based on the Manual on Uniform Traffic Control Devices

(MUTCD). The MUTCD was developed by the U.S. Department of Transportation, Federal Highway Administration to set national standards for road managers when installing and maintaining traffic control devices on all public streets, highways, bikeways, and private roads open to public travel. National standards contained within the MUTCD are applicable to all traffic control devices, including:

Did You Know that	
Unincorporated King County has...	
✓	78 traffic signals?
✓	Over 44,000 traffic signs?
✓	Over 200,000 linear feet of thermoplastic markings?
✓	Over 2,500 miles of lane striping?

- **Traffic signs** to warn the public of sharp curves and intersections, guide traffic, control intersections, and prohibit parking.
- **Traffic signals or controls**, including warning flashers and red-light cameras, exclusive and protected left turn lanes, signal timing, signal head visibility, and new intersections within the existing alignment (signalized or roundabouts).
- **Roadway delineation or pavement markings**, including edge line markings, raised pavement markers, or post delineators.
- **Lighting or illumination.**
- **Channelization**, including left and right turn lanes (with signal), acceleration or deceleration lanes, and access restrictions (i.e. curbs).
- **Pavement treatments** such as special surface treatments (i.e. high friction surface).
- **Alignment alterations** that modify the horizontal and vertical alignment, and curve reconstructions.

Traffic control devices optimize traffic performance, promote uniformity nationwide, and help improve safety by reducing the number and severity of traffic crashes. The following sections describe the processes developed for identifying projects and managing programs aimed at addressing accidents, congestion, MUTCD requirements, and design constraints.

Traffic Signals

The process to prioritize signal needs conforms to the laws set forth by the federal government, adopted with amendments by state government, and presented in the *Manual on Uniform Traffic Control Devices (MUTCD)* published by the Federal Highway Administration and the U.S. Department of Transportation.



The prioritization process evaluates signal warrants set forth in the MUTCD and assigns rating values to each warrant. There are 5 primary warrants (described in the inset) used in evaluating a signalization need and the sum of these individual warrant ratings provides a comparison to other potential signal locations.

Prioritization and selection of intersections for signalization starts with data collection. Road Services' Traffic Engineering staff collects vehicle and pedestrian volumes, prevailing speeds, and collision history at each intersection, over the most recent three-year period. Each intersection is then evaluated using MUTCD warrants based on the number of approach lanes and the collected data.

The MUTCD states that signal warrants define the minimum conditions under which installing a traffic control signal might be justified. However, selection and use of traffic control signals should be based on careful analysis of traffic operations, pedestrian and bicyclist needs and other factors, coupled with engineering judgment. Traffic signals should not be installed unless one or more of the nine signal warrants are met. Three of these warrants are based on traffic volumes at several periods during the day: The peak hour, the fourth highest hour, and the eighth highest hour. Another warrant examines the traffic collision history, focusing attention on accidents correctable by signalization (left-turn and right-angle types). Two warrants examine pedestrian activity to determine if pedestrian volumes warrant signalization. Two warrants examine

Five Primary Warrants Used for Unincorporated King County

Warrant 1 – Eight-Hour Vehicular Volume

- Condition A: Minimum Vehicular Volume
- Condition B: Interruption of Continuous Traffic

Warrant 2 – Four-Hour Vehicular Volume

Warrant 3 – Peak-Hour Vehicular Volume

Warrant 6 – Coordinated Signal System

Warrant 7 – Crash Experience

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whether signalization would improve traffic flow in a coordinated signal system or roadway network. The final warrant examines the proximity to a grade (rail) crossing.

Five primary warrants are used to prioritize (rate and rank) all intersections. The remaining warrants are also considered in the evaluation process, but these warrants are less applicable to the suburban and rural nature of unincorporated King County.

In addition to the five MUTCD warrants that are most applicable to unincorporated roadways, King County adds a factor for proximity to a school site. This additional factor does not replace the pedestrian-related warrants. For locations near schools, shopping and other pedestrian attractors, the volume of pedestrian activity is examined as well as pedestrian warrants. The proximity to school factor addresses the potential for pedestrian activity outside of average-day activities.

Rating values, representing the degree to which signal warrants are met, are calculated for each of the five primary warrants. Values are summed by intersection, and the list of intersections is sorted to separate those that meet at least one signal warrant from those that do not. Intersections that meet one or more warrants are sorted by rating value from the largest to the smallest and are then numbered according to their order in the list. The resulting list of rank-ordered intersections is called the priority array. It provides a starting point for determining locations to signalize.

Intersections on the top of the priority array undergo an extensive evaluation of alternatives to signalization as listed in the MUTCD, Section 4B.04. The list of alternatives includes, but is not limited to, the construction of additional lanes, revising the intersection geometrics to channelize movements and realign intersections, installing street lighting, improving sight distance, installing roundabouts, implementing other measures to reduce approach speeds, changing lane use assignments, restricting movements, or ~~((by))~~ adding stop controls or intersection flashers. Particular attention is given to the predominant type of collision recurring at the intersection. The evaluation also includes existing and forecast traffic operational analyses to determine the effectiveness of each alternative and development of estimates for cost comparisons. A committee of engineers and maintenance staff reviews the information developed from these analyses and selects the improvement providing the safest, most cost effective, long-term solution.

Traffic Signal Programmatic Needs – Inspection and Planning

The Traffic Control Signal Priority Array includes the results of a review of un-signalized intersections to determine if existing conditions meet the criteria for installation of a new traffic signal, the review of left-turn signal phasing at existing traffic signalized locations, and review of traffic signalized intersections relative to safety and/or congestion concerns. The Traffic Control Signal Priority Array (Array) is updated continuously as new traffic count data and/or requests for review are received. This review looks at un-signalized intersections identified as being congested and/or has a safety concern which a traffic signal may address. The Federal

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Highway Administration's *Manual on Uniform Traffic Control Devices* provides a series of tests, called warrants, based on vehicle volumes, pedestrian volumes, collision history, speeds, and proximity to other signals. The Array forms the basis for decisions and selection of projects for the TNR (as discussed above in the Traffic Control Signal Projects section).

Phasing – Monitoring the left-turn phasing at existing traffic signal locations ensures that the appropriate level of protection is provided. Signals with permissive left turn phasing (yield condition indicated by green ball signal display) and those with protected-permissive phasing (green arrow followed by yield condition indicated by green ball signal display) are evaluated to determine if the current left-turn signal phasing is appropriate. If a study finds that the current left-turn signal phasing should be upgraded to provide additional protection for left-turning vehicles, plans are made to implement the changes.

Signal Operations – Existing traffic signal operations are field reviewed on a two year cycle to ensure that changes in conditions such as new development adjacent to the signal, shifts in vehicle volumes due to road improvements, new/improved pedestrian pathways or attractors, growth of vegetation, queue lengths relative to length of existing turn pockets, vehicle delays by movement, and other elements of the traffic signal operation are acceptable based on engineering judgment.

Street Lighting – Is required on all roadways with three or more lanes of travel and as identifiers when a local road intersects an arterial, per the King County Road Standards. Street lighting provides motorists with the increased ability to see existing turn channelization and safely maneuver. King County has identified locations in unincorporated King County with existing turn channelization but limited-to-no street lighting. These street lighting needs will be addressed by King County programmatically.

Intelligent Transportation Systems

Intelligent transportation system (ITS) improvements include cameras, vehicle detection, traffic signal equipment and timing upgrades, pavement conditions sensors, and the communications infrastructure to support these devices.

Road Services' 2005 ITS Strategic Plan identified 34 key corridors that could benefit from ITS implementation.

Corridors were chosen after review of various planning documents and from stakeholder feedback regarding

transportation needs in unincorporated King County. For the most part, these corridors are linked to each other or to other King County ITS projects, allowing for communications continuity and the establishment of a regional ITS corridor network. Corridors include both urban arterials and smaller-capacity, rural roads.

Other factors such as funding availability, dependence on other projects and overall project feasibility contribute to whether or not an ITS project will be implemented. King County maintains a relative priority of ITS projects that is not organized into a set order for deployment.



Intelligent Transportation Systems (ITS) Corridor Project Prioritization Criteria

In the 2005 ITS Strategic plan, the criteria for analyzing project priorities were established based upon examples from the 2004 Transportation Needs Report, other criteria specific to ITS projects and King County's needs. Each criterion was analyzed on a scale of 1 – 5 points and no single criterion was weighted more heavily than another. Priorities were established by totaling the points received by each project. A general priority level (Low, Medium, High) was then assigned by comparing the scores each project received.

ITS Criteria included:

Average Daily Traffic (ADT): The same traffic volume scale as developed for capacity projects were used to assign priority for ITS projects along roads with the highest ADT.

Volume to Capacity Ratios: Roads whose volumes are approaching or exceeding capacity were given priority.

Accident Rates: Corridors with high accident rates were considered higher priority.

Transit Ridership: Corridors with greater volumes of transit ridership were considered higher priority.

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Potential for Annexation: Proposed and approved land annexations for 2004 and 2005 as well as proposed future annexations were considered. Corridors with little probability of annexation were considered higher priority.

Availability of Communications: Corridors with access to communications infrastructure were considered higher priority.

Links to Other Existing/Planned Projects: Higher priority was given to corridor projects that could coordinate or build off of other county ITS corridor projects.

Hazard Areas: King County identified a number of hazards along county roadways, including High Accident Road Segments (HARS), High Accident Locations (HALs), and areas prone to flooding, ice, and landslides. Corridors with two or more of these hazard locations were given a higher score than those where only one identified hazard was identified.

Since 2005, seven of the 34 identified ITS corridor improvements have been completed, two corridors have received partial improvements, two corridors have been designed (construction planned for 2016-2017), and nine corridors have been annexed by other jurisdictions. The majority of the remaining projects were ranked as having a medium or low priority using the criteria presented above. These remaining projects have been included in the 2016 TNR project list.

Programmatic Intelligent Transportation Systems (ITS) Projects

Programmatic ITS projects provide the information processing and dissemination capability to add value to the data collected by the field devices deployed by the corridor projects. They also include countywide projects that can be implemented throughout the County and are not focused on one corridor. The regional ITS projects include Emergency Management, Traffic Management, Data Management, Communications, Maintenance and Construction Activity Coordination and Traveler Information.

Regional ITS projects were evaluated for priority using the following criteria:

- Improvement to ~~((T))~~traffic ~~((F))~~flow
- Improvement to ~~((I))~~incident ~~((R))~~response ~~((T))~~time
- Improvement to ~~((R))~~regional ~~((I))~~information ~~((S))~~sharing for ~~((T))~~traveling ~~((P))~~public
- Improvement to the ~~((E))~~efficiency of County ~~((S))~~services ~~((D))~~delivery
- Potential for ~~((P))~~phased ~~((I))~~implementation
- Relative ~~((E))~~ease of ~~((I))~~implementation
- Eligible to ~~((L))~~leverage ~~((N))~~non-County ~~((F))~~funding ~~((S))~~sources
- Builds upon ~~((E))~~existing ~~((I))~~infrastructure/~~((P))~~projects

High Accident Locations (HALs) and High Accident Road Segments (HARS)

Every three years King County releases its list of High Accident Locations (HALs) and High Accident Road Segments (HARS). ~~((The 2016 report will be released early in the year and projects will be included in this TNR.))~~ The list is consistent with the goals and criteria

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established by the Target Zero program, sponsored by the Washington Traffic Safety Commission.

The initial list of HARS projects is compiled by using collision data (crash frequency analysis) from the previous three-year period and applying a Sliding Spot Query. This query “crawls” the database, totaling collisions by a specified length and generating a list of segments where collisions exceed a designated threshold.

A new type of listing was created to address high accident roadway segments that are not part of the arterial system called Local High Accident Roadway Segments (LHARS). Four roadways were found to have high crash frequencies on local unincorporated roads.

Longer corridors of one mile in length were also reviewed for safety concerns stretching along roadway segments considerably longer than 1,000 feet. These roadway corridors were designated as High Accident Corridors and five roads were listed that had 30 or more collisions along their lengths.

Once the locations were identified, data such as collision types, traffic volumes, and roadway characteristics were collected for each location. This information was used to develop improvements intended to reduce the occurrence of collisions called countermeasures. There are a broad range of countermeasures, with approaches ranging from changing roadway geometrics to altering traffic signal timing. Countermeasures were selected based on predominant collision patterns, field observations, County practices, and the experience of the review team.

Countermeasures were developed for most but not all of the locations. There are several reasons for not developing countermeasures for a given location that include:

- Locations where recent or near-term improvements were judged likely to have a significant effect on the predominant accident patterns were omitted.
- Locations that had been recently annexed by other jurisdictions were omitted.
- Sites with no clear collision pattern and no noted deficiencies were omitted.

Once the countermeasures were developed, a benefit-cost analysis was prepared for each location. Benefit/cost ratios are frequently used to prioritize safety improvements since it can indicate if the benefits of a proposed countermeasure are greater than the costs and thus are worthy of improvement. The ratio is equal to the benefit of the expected reduction in collision costs divided by the project cost. Generally, if the ratio is equal to or exceeds one it indicates that the project is worth the investment.

To determine the benefit of the project, the expected reduction in collisions due to a given countermeasure was estimated using nationally published “reduction factors” with modifications based on King County’s past experience. The reduction factor was used in combination with typical collision costs to determine the expected societal benefit (in dollars)

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of completing the improvement. The benefit was then “normalized” by converting to a present value based on the expected service life of the improvement. Finally, the normalized benefit was divided by a planning-level cost estimate to obtain the benefit-cost ratio for the project.

The results of the benefit/cost analysis and detailed documentation of the process used are contained in the report, *High Accident Locations and Road Segments Analysis, King County, Washington*; King County Department of Transportation, Engineering Section; February 2016.

The culmination of this analysis identified a list of safety improvements. These projects were then prioritized further, according to their respective benefit(-)-cost ratio.

The 2016 HAL/HARS analysis will be published in the spring of 2016. This is the comprehensive list of identified life safety needs for roads in Unincorporated King County. Road Services (~~hopes to amend the 2016 TNR~~) may amend future TNRs with the results of the 2016 High Accident Locations and Road Segments Analysis so that these capital safety projects can be included.

High Crash Rate Analysis

To identify roadway safety needs, there are several different types of data analysis that can be conducted. In 2014, the Federal Highway Administration encouraged local agencies to start using the *crash rate* of a road segment or intersection to determine safety needs. As stated by FHWA, the benefit of a crash rate analysis is that it provides a more effective comparison of similar locations with safety issues by taking traffic volumes into account. This allows for the prioritization of these locations when considering safety improvements with limited resources.

In 2014, King County Roads started developing crash/accident rates for roadway segments and intersections in unincorporated King County. The crash rate is a ratio of accidents divided by average daily traffic. As part of the preliminary analysis, Intersections with rates at or near 1.0 accident per million entering vehicles were considered high crash locations. Roadway sections with crash rates of approximately 5 to 10 accidents per million vehicle miles traveled and higher were deemed high crash roadways.

Small Scope Operational Projects

In 2005, Road Services recognized the need to establish a program for projects that address small scope traffic flow and safety issues. The need for a program arose from the realization that these types of projects had typically not been included in other types of prioritization processes and had not received funding but do yield high benefit to cost ratios. Small scope

operational project types can include pedestrian facilities, non-signal intersection improvements and projects at various roadway locations.

Project Selection Process

A list of potential improvements was compiled from recommendations by a number of sources including King County Roads engineering staff, businesses, community groups, and members of the general public. Once projects were identified, they were scoped further by conducting:

- A field review - scope verification, cost estimating, and identification of unique constraints and challenges.
- Collection of up-to-date field information and photographs
- Development of site specific diagrams and sketches
- Analysis of King County traffic volume and accident data

The evaluation for each project was based on a preliminary screening of the project information obtained during data collection. Preliminary screening/feasibility analysis was undertaken prior to project development to assure a candidate project is feasible and satisfies program goals and criteria before it is evaluated. As each project was screened, it was assigned a relative (high, medium, low) priority to develop a preliminary ranking and determination of whether to advance formal prioritization process.

Determination of Priority Process Score

The priority process was developed with the purpose of providing a quantitative assessment of each project's merits for comparison with similar projects. Prioritization and selection of projects began with project screening/feasibility analysis and ended with the prioritized project list. Data on vehicle and pedestrian volumes, vehicle speeds, existing and planned facility capacities and accident history at each location over the most recent three or five year period was also collected as part of the analysis process.

Each project was unique due to the specific issues addressed. Certain concerns were indicative of site deficiencies that could be addressed by specific countermeasures – improvements that address problems at a given location to improve the safety or traffic operations. Countermeasures were developed for the three separate categories (pedestrian facilities, non-signal intersection improvements and roadway locations) based on the predominant problems, field observations, King County practices and standards, and the experience of the review team.

Pedestrian-oriented projects used the existing pedestrian priority array (see the non-motorized discussion earlier in this document). The algorithm for non-signal intersection improvements and roadway location projects was developed specifically by Road Services Traffic Engineering staff to score projects in their respective categories.

Evaluations of Candidate Locations and Project Selection

Scores for each location ranged from 0 to 100 into low, medium and high levels. Potential projects were reviewed with planning-level cost estimates and then subjected to a basic

financial analysis. Low scoring projects or those with prohibitive costs are given less consideration. The highest scoring projects are prioritized and then considered as best candidates for the program.

Small scope operational projects include a broad cross-section of both urban and rural locations, and priority arrays are developed for each of the three categories. Final project selections are based on the priority scores, weighted based on an assessment of each project's potential effectiveness. Consideration and higher priority is also given to such factors as whether the project can coordinate with or enhance other King County transportation needs and priorities.

Traffic Control Devices: Maintenance and Operations

Traffic Control Devices, including ITS, can promote safety and efficiency, and can enhance transit speed and reliability by enabling the orderly movement of all road users on streets and highways. This equipment provides real-time traffic information to King County traffic operators, the media, and the traveling public.

- *Street Lighting, Signals, Flashers and ITS Equipment* and all associated components such as controllers, lights, mast arms, timers, cameras, cabinets, and loop detectors.
(-)
- *Sign* maintenance includes replacement and installation, fabrication, inspection, cleaning, and responding to ((~~citizen~~)) resident call-outs.
- *Pavement marking* maintenance includes replacement of pavement markings, including striping, thermoplastic, and buttons.

Sign Fact
All signs should be cleaned at least once a year, and replaced every 10 years as reflectivity is reduced

Regular maintenance of traffic control devices ensures that:

- Safety standards are met;
- Damaged signs are replaced;
- Traffic signs, stripes, and markings are replaced so that they are visible night and day;
- Intersections are operating efficiently;
- Traffic control systems are operating correctly;
- Traffic information is accurate, clear, and appropriate; and
- Traffic restrictions are clearly marked.

Drainage

Road Services is responsible for the drainage infrastructure within, alongside and under unincorporated roads ~~(-)~~ right-of-way, including: ~~(P)~~ pipes, ditches, catch basins, manholes, retention/detention ponds, rain gardens, vaults, and bio-swales.

The largest and most costly component of King County's aging system are the enclosed pipes, greater in diameter than 24 inches. These pipes serve a critical role in conveying regional surface waters and will have the largest consequences if they fail, because their failure poses the greatest risk to public safety, property, and aquatic resources.

Did you know that unincorporated King County Roads has...

- Over 3,200,000 linear feet of pipe.
- Over 5,000 culverts.
- Over 6,000,000 linear feet of ditch.
- Over 23,000 catch basins.
- Over 750 manholes.

In unincorporated King County, regional pipe systems represent about 2% of the drainage system in the road right of way. This section discusses how larger-scale drainage projects that would be stand-alone capital projects are identified and prioritized. These large projects are those that are listed in the 2016 TNR. Smaller projects, constructed by in-house staff under the Road Services' Countywide Drainage Program, are not included in the 2016 TNR project list but are prioritized in the same manner.

Larger, Stand ~~(-)~~-Alone Drainage Project Identification and Prioritization

Drainage projects are identified in two ways: ~~(F)~~ field confirmation of deficiency and a life-cycle analysis/condition rating.

Field Confirmation: Drainage problems and concerns are brought to the attention of Road Services in variety of ways including by ~~(citizen)~~ resident complaint or concern, as a result of routine road patrol and field work, or from outside or internal agency requests. Drainage complaints and requests are then reviewed to determine the responsible owner. When Road Services is the owner ~~(-)~~, a project is created and entered into the Drainage Tracker Priority Array. Two evaluation systems are used to rate the priority of drainage projects: ~~(A)~~ a Field Priority Score and Habitat Evaluation Process.



In 2014, Road Services received a grant to fund the development of a third prioritization system for drainage projects based on quantifying the benefits to water quality. That work is underway and will be completed by the end of 2016.

Field Priority Scores: Scores for field priority reflect the problem's threat to the public safety associated with the roadway and its contribution to drainage problems, on private property, downstream of the roadway. There are eight criteria used to evaluate each problem site that yield the field priority score. These criteria help identify system-wide impacts of each drainage problem.

Field priority criteria are assigned point values (from 0 to 10), and weights, (from 1 to 5), based on their importance to the maintenance of the county road system. This assigns priority to projects in the Drainage Tracker and serves as a priority array.

Habitat Evaluation Process: To address federal, state and local regulatory requirements (such as the Endangered Species Act (ESA), the Washington State Hydraulic Code and King County's Critical Areas Ordinance) as well as to improve environmental health, a habitat evaluation is completed for projects that affect aquatic areas, fish habitats and their buffers. These sites are visited by a Road Services staff biologist. The project's impacts or benefits to these areas are identified using the habitat evaluation criteria to generate a priority score. The Habitat Evaluation is also used to document potential regulatory mitigation requirements.

After the Field Priority Score and the Habitat Evaluation are completed the scores and other available information are entered into the Drainage Tracker. After the projects have been prioritized, the Drainage Tracker is then used to monitor the status of the projects through design, permitting, and project completion.

Emergency projects and project schedules: Projects are scheduled in the County~~((W))~~wide Drainage Preservation Program annually. Scheduling annually helps reduce frequent reallocation of resources except in the case of a severe emergency. However, drainage problem sites are reported to Road Services' Maintenance crews almost daily. Some of these drainage concerns are so urgent that they must be included in the current year's work program. Project priorities are re-evaluated every time a new project is added to the Drainage Tracker to ensure that effort is expended on the most urgent safety and preservation projects.

Drainage Project Prioritization Schemes

Field Priority Criteria

1. Threat to public safety
2. Threat to public property
3. Threat to private property
4. Water quality improvement
5. Maintenance problem resolved
6. Road closure severity (detour, sole access or no impact)
7. Road classification (local access, arterial use, collector use)
8. Road failure potential

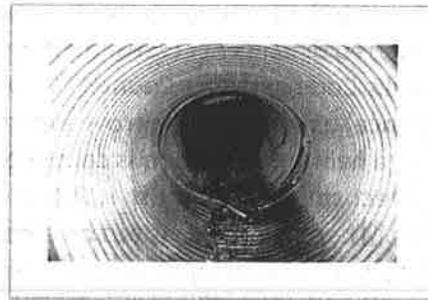
Habitat Evaluation Criteria

1. Fish stock status (species of concern or ESA listed?)
2. Site specific information (fish passage, water quality, wetland improvement or risk of habitat damage?)
3. Basin/system concerns (does the project address basin concerns or consideration of the stream habitat opened for fish passage?)

Drainage Program Programmatic Needs

Road Services' Drainage Tracker provides a prioritized list of the known major and minor drainage infrastructure needs. These projects range in scale from the replacement of small segments of pipe to large cross-culvert replacements. They can be triggered by regulatory requirements, or safety and preservation needs. For planning purposes, there is a major division in the backlog of the Drainage Tracker projects between those that impact streams and those that don't. Culvert replacements that impact streams are those that are required to eliminate barriers to spawning fish, including((:)) vertical drops, water depth, and water velocity. Non-stream impacting drainage projects include stormwater system retrofits and the installation or replacement of catch basins, vaults or pipes.

Drainage System Condition Assessment: A large portion of King County's unincorporated drainage system is at or nearing the end of its useful life and its current condition is largely unknown. To address this lack of knowledge, an effort is underway to identify the location, age, type, size, and condition of regional drainage facilities in Road Services' road right of way. This information is necessary to identify and assess the urgency and cost of drainage facility maintenance and renewal needs. In 2015, Road Services, in coordination with King County's Water and Land Resources Division, initiated this effort for the parts of unincorporated system deemed most at risk, which is estimated at 40% of the pipes that are 24" and larger system or 2% of the entire system in the road way.



This effort will provide information for Road Services to use in completing an inventory and condition assessment of the remaining drainage system. The assessment will also inform policy discussions regarding the responsibility and funding structure for operation, maintenance, and renewal of regional drainage systems in the unincorporated and incorporated areas.

A final "Road Right-of-Way Drainage Trunk Line Assessment"" report was issued in February 2016.¹

Drainage Maintenance and Operations

Standing water can be a safety hazard to road users and accelerates the deterioration of the roadway surface and substructure. Drainage infrastructure moves stormwater away from the roadway and reduces flood risk to the built environment

¹ http://your.kingcounty.gov/dnrp/library/water-and-land/stormwater/KC_ROW_Drainge_Assessment_Final_Report.pdf

Ditch Fact
Ditches need to be cleaned
every 2((-)) years.

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(public and private property) by collecting and redirecting stormwater to natural bodies of water and designated collections points. Drainage infrastructure reduces water pollution by collecting stormwater and filtering out pollutants and sediment via settlement, infiltration, or other processes.

To ensure these outcomes, Road Services employs routine inspections, regular maintenance, repair, and the replacement of drainage infrastructure that fall into the following categories:

Quick response: Work associate with unanticipated failures of the drainage system.

Drainage system cleaning: Routine maintenance to the drainage system, including pipe and catch basin cleaning, vactoring sediment, and small incidental repairs.

Ditch maintenance: Reshapes and cleans roadside ditches to ensure proper drainage. This work is primarily preformed through bucket ditching with a front end loader or a back hoe.

Minor repair: Includes repairs to the drainage system, such as: drainage pipe repair or replacement, repair of catch basins, pipe marking, trash rack and header repairs, erosion prevention, rip-rap replacement, and catch basin lid replacement, the installation of stream by-passes, stream restoration all using best management practices.

Storm((-W))water Pond Maintenance: Mowing, brush removal, and cleaning of storm((-))water ponds.

Drainage infrastructure is doing its job when...

- It meets safety and environmental standards.
- Water on the roadway causes minimal impact to travelers, infrastructure or private property.
- Surrounding streams, rivers and lakes enjoy good water quality.
- Ponds, ditches and enclosed drainage systems are free of litter/debris.
- Road-related ponds or ditches are mosquito free.

Pipe Fact

All pipes need to be marked every 3((-))years to ensure clear visibility of the drainage infrastructure and provide ready identification of the structure for crews implementing routine maintenance.

Bridges and Structures

Bridges are key components of the County road network, providing routes over bodies of water, roads, lowlands, railroad tracks, or other obstacles. Road Services owns, operates and maintains 181 bridges. The bridge category includes long span bridges (those that appear on the national bridge inventory), short span bridges, safety enhancement bridges (to keep wildlife off of roadways), and pedestrian bridges. These bridges can be made of concrete, steel, timber, or a combination of the three building materials.

Structures include infrastructure designed to retain or contain the natural environment and protect the built environment (seawalls, retaining walls, and riprap walls/slopes); as well as ~~((7))~~ those buildings necessary for daily operations (sheds, maintenance shops, and office buildings).

Bridge Replacement and Preservation

County bridges are inspected regularly and assessed to ensure the safety of the traveling public. Inspection of all County roadway bridges occurs on a two-year cycle and aim to implement the National Bridge Inspection Standards (NBIS) by calculating a sufficiency rating for each bridge. The sufficiency rating is based on factors such as structural adequacy and safety, serviceability and functional obsolescence, and how essential the bridge is for public use. Sufficiency rating ranges from zero (worst) to 100 (best).

The sufficiency rating score is used to establish eligibility for federal bridge replacement and rehabilitation funds. Bridges with a sufficiency rating less than or equal to 50 that are either functionally obsolete or structurally deficient, are eligible for replacement funds. Any bridge with a sufficiency rating less than or equal to 80 that is functionally obsolete (defined as the function of the geometrics of the bridge in relation to the geometrics required by current design standards) or structurally deficient is eligible for rehabilitation funds.

In Washington, federal bridge funds are allocated to local agencies through the Washington Department of Transportation (WSDOT) using a competitive process. WSDOT is focusing on funding local agency bridges that are classified as structurally deficient with a sufficiency rating of 40 or less for replacement, and structurally deficient with a sufficiency rating of 80 or less for rehabilitation projects.



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Though the sufficiency rating establishes eligibility for federal funding, it is inadequate to prioritize King County's bridges for replacement or rehabilitation because the rating does not give enough weight to important criteria such as load limitations, hydraulics, geometric deficiency, and expected useful life. The King County Bridge Priority Process establishes the need for individual bridge replacement by score and rank using criteria approved by the King County Council (Ordinance 11693).

In ~~(fall)~~2011, Road Services moved forward with implementing the use of the tier service level criteria for all unincorporated King County Roads. Tier service levels are now applied in addition to the bridge priority process to help establish priorities for allocating funding for bridge projects. The results of the bridge priority process are published annually and reported in Road Services' Annual Bridge Report, a supporting document to the Road Services' budget.

Road Services' bridge priority process is used to inform short- and long-term needs for Road Services 181 bridges. Minor maintenance and repair activities and quick responses to bridge needs are covered by maintenance and operations. Larger projects are designated as stand-alone preservation projects or are addressed through bridge preservation programs, including:

Preservation – Bridge Priority Maintenance (BPM): Includes bridge needs outside of routine or minor maintenance and repair and activities such as: ~~((M))~~major damage repairs, deck or traffic rail replacements, and scour protection and mitigation.



Bridge Painting: King County has 23 bridges with painted steel components; trusses, steel girders and floor beams, plus secondary stabilizing members. Of these bridges, approximately one-third have lead paint that was applied prior to 1970. All lead paint must be properly removed prior to applying new paint, which necessitates a costly full lead containment and abatement system.

Bridge Inspection: All bridges are inspected at 24 month intervals and the reports for bridges on the National Bridge Inventory are collected and reported to the Federal Highway Administration by the Washington State Department of Transportation. Some bridges require more frequent or special inspections when deterioration is being closely monitored. This work includes not only the labor, but also the equipment and contract services that sustain inspection activities.



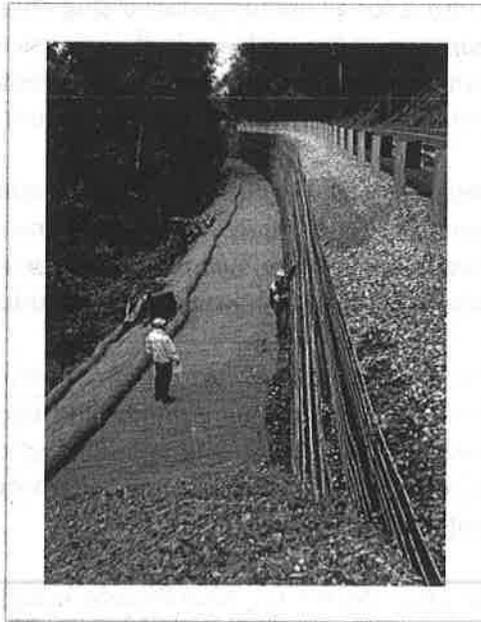
Bridge Replacement: ~~((#))~~Includes design, environmental compliance, and construction of full

bridge replacements. The 20-year projected need for bridge replacement includes 43 bridges selected by using three factors; the current bridge condition and projected remaining useful life based on the age of the bridge, the Council-approved criteria for bridge funding priority, and an expert review of candidate bridges. The resultant list is the best current representation of the bridges that will be most in need of replacement over the next 20((-))_years. The list includes both short-span bridges and bridges eligible for federal funding.

Structures Needed to Protect Vulnerable Road Segments

Structures enable roads to exist in diverse landscapes by controlling and shaping the natural environment and providing protection from environmental impacts such as flooding, tides, waves, storm surges or landslides. Structures include infrastructure such as seawalls, retaining walls, armored slopes, and even bridges.

King County's roadways have suffered repeated failures requiring emergency or routine repairs following storm events or even prolonged rain. These locations have been designated as vulnerable road segments; which was defined as a road segment that requires abnormally expensive and/or frequent repairs. In 2005 the first Vulnerable Road Segments (VRS) study was conducted to identify, quantify, and prioritize vulnerable road segments throughout the County and developed projects to resolve the vulnerability of the identified road segments. The study process developed a list of unstable slopes and locations requiring routine maintenance.



~~((63))~~ Sixty three road segments were initially identified as candidates. Each of the road segments was grouped into one of six problem categories: steep slopes, landslide, seawall, river erosion, flood, and roadway settlement. These categories helped the team in identifying the proposed solution and the possible environmental impacts, and ultimately the project cost.



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Once the projects were grouped into their categories, the project team analyzed the list of identified vulnerable road segments based on the following:

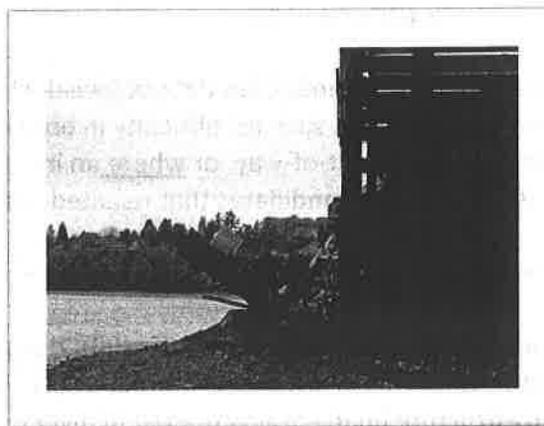
- Traffic data
- Engineering assessment of the problem((:))
- Estimated cost to remedy the problem((:))
- Guardrail needs((:))
- Roadway classification((:and))
- Detour length((-))

General information was also developed for each road segment, including but not limited to: the segment location, description of the road segment, and a description of the scope of work. Proposed solutions and recommendations were developed during the analysis((:)), ranging from proposed projects to no action.

In 2008 and 2011, the engineers who conducted the original study regrouped and re-evaluated the existing list against known problems and existing conditions. In 2011, three new road segments were identified as vulnerable road segment candidates.

Priority Ranking: The projects developed during the analysis of the identified road segments were prioritized based on the following:

- **Maintenance Cost per Year** – this is the average estimated amount of money spent each year repairing the road segment to its pre-damage condition (temporary repair). Those projects with higher annual maintenance costs were given a higher priority.
- **Construction Cost/Vehicle** – this factor divides the cost of the permanent construction fix (project identified in the TNR) by the average daily number of vehicles that travel the road. Projects with a lower cost benefitting a higher number of vehicles were given a higher priority.
- **Impact of Failure** – this factor accounted for the importance of correcting a vulnerable road segment. The roadways were scored from 1 to 5, where a score of 1 was associated with a roadway that, left uncorrected, would result in a total failure resulting in complete closure of the road; and a score of 5 was associated with a roadway that, left uncorrected, maintenance would be necessary with no foreseeable loss of road function.
- **Driver Inconvenience** – this factor measures the overall level of driver inconvenience if a segment of road is closed, taking in to consideration the detour length and traffic volume. Road segments involving longer detours with higher traffic volumes were given more priority.
- **Inclusion in a Future Project** – this factor gives priority to segments that were part of a planned project in the RSD CIP or TNR; accounting for the opportunity to complete two needs with one project.



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- **Guardrail Need** – this factor gave a higher priority to road segments slated for future guardrail improvements, accounting for the opportunity to fulfill two needs with one project.

The factors were chosen by the project team and refined through an iterative process. After each iteration the values and percentages (weighting) of the factors, as well as the segment rankings were studied for reasonableness. The ranking process was finalized when the full numerical range of each factor was well distributed among the segments and the weighting percentage of each factor seemed to result in a logical ranking of segments. The road segment with the lowest score was considered the best candidate (high priority) for a road project.

Structure Needs: The proposed permanent solutions to the vulnerable road segments included: construction of retaining walls, replacement of seawalls, replacement of culverts with bridges, construction of rockery or armored sloped, rais((e))ing the roadway with walls and culverts, reconstruct the roadway, roadway re-alignment with walls, and for seven locations it was recommended to continue routine maintenance at that location (no permanent fix). All of the projects identified in the VRS study that result in a permanent repair have been included the TNR list and given the appropriate product family label (i.e. reconstruction projects identified in the VRS study were labeled as roadway projects, and walls and bridges were labeled as bridge/structure projects). The following types bridge/structure needs were identified as part of the VRS study:

- Construct retaining walls to prevent slides on steep slopes above and below the roadway, stabilizing the slope and adjacent river banks
- Replace seawalls to adequately support the road prism, protect the road from storm wave action, and eliminate routine road failures.
- Replace undersized culverts with bridges to provide better conveyance of water, silt, and debris.
- Raise the roadway using walls or other armored structures (i.e. rip rap) to minimize flooding and erosion impacts to the roadway. Typically these projects require the perforations in the armored walls to allow for the conveyance of water and the inclusion of guardrails.
- Armor road shoulders with riprap or other hardened structures to prevent routine washouts during flood events.

Some of the VRS candidates did not ((results)) result in ((the)) a proposed project((s)) due to various constraints such as: difficulty in obtaining regulatory approvals, low average daily traffic, limited right-of-way, or where an interim repair or routine maintenance was deemed sufficient. Those candidates that resulted in a project are included in the 2016 TNR project list.

Bridges and Structures – Maintenance and Operations

Bridges are key components of the ((e))County road network that provide routes over bodies of water, other roads, lowlands, railroad tracks, or other obstacles. Structures related to the road infrastructure enable roads to exist in diverse landscapes by controlling and shaping the natural environment and providing protection from environmental impacts such as flooding, tides, waves, storm surges, or landslides.

Structures related to the services provided by Road Services enable the County to not only provide timely emergency response; but also provide the tools necessary for routine maintenance and operation of the road network.

If bridges and road structures are not regularly inspected and maintained, they may become unsafe and require closures which can result in loss of access to property or longer travel times. If service structures do not supply the necessary tools to accomplish routine or emergency tasks, or are not situated in a location that provides equitable access to the surrounding road network; the public will experience inefficient and inconsistent service. To minimize these consequences and maximize the outcomes listed above, Road Services employs programs that facilitate routine inspection, maintenance, repair, and replacement of Bridges and Structures. These programs fall into the following categories:

Routinely inspected and maintained bridges and structures serve the public by ensuring that:

- Safety and environmental standards are met.
- The structures are free of hazards.
- Roads remain open to travel.
- There are no load or height restrictions.
- They provide non-motorized access.
- Crossing delays are minimized.

Minor bridge maintenance and repair: Includes work associated with routine bridge maintenance and repair such as small repairs, debris removal, surface cleaning, and graffiti removal. Routine inspections, load ratings, and other analyses inform the need for the minor maintenance and repair of structures.

Operations: Includes the resources needed to operate a bascule bridge (such as the South Park Bridge), which requires bridge tender staff to raise and lower the bridge for boat traffic.

Quick response: Includes work associated with unexpected failures in the bridge system and seawalls.

Facilities

Road Services has six regional maintenance facilities and a maintenance headquarters that provide routine and emergency services to the road system throughout the unincorporated area. Many of the ((e))County's existing road maintenance facilities are old and require significant capital improvements or have exceeded their useful lives and require replacement. Most are between 40 and 60 years old, with a few dating back to the early 1900s. As such, some do not meet current building standards or do not readily accommodate the needs of a modern workforce and equipment inventory. Some facilities have inadequate heat, insufficient restrooms, or failing septic systems. Some facilities have been plagued by leaking roofs, mold, or rodent infestations.

Maintenance activities keep the ((e))County's road-related assets in working condition to maximize the public's investment and provide for the safety of users. People and equipment are the tools to deliver safety services on ((e))County roads; adequate tools including heat, power, and weather((-))tight maintenance facilities located in the right places are necessary to support the efficient provision of vital services to the traveling public. The existing conditions of the Road Services facilities have resulted in a compromised ability to provide services, often during public emergencies.

The ability to respond to incidents and public emergencies 24 hours a day, seven days a week is an important part of operating a road network. Emergency response capability also helps keep the road system safe and operational during severe weather and after earthquakes or other events. With deteriorated or a lack of appropriate facilities, the sand used in responding to snow and ice will freeze in trucks, resulting in significant delay of road treatment to make them passable. An investment in the highest priority facility failures and sub-standard facilities are necessary for continued delivery of essential safety and routine maintenance services.

Assessment of current facilities: As part of the facility planning effort to develop the Facilities Master Plan (FMP), the current facilities were assessed for conditions, locations, and functions. The results of these assessments helped identify facility needs.

Physical condition: To get a current and comprehensive understanding of the condition of its existing maintenance facilities, the ((e))County engaged facilities consultant DLR Group in ~~((July))~~2013 to conduct a facilities condition assessment. DLR Group assessed and documented various components of the buildings and properties of the regional maintenance shops and the maintenance headquarters. The study included the cost estimates for capital needs of each facility and projected costs associated with future use for each facility.

The DLR condition report and analysis was used to help prioritize needed maintenance repairs and inform future cost-benefit analysis and decisions regarding whether to invest in expensive repairs or rehabilitation of facilities, or to relocate or rebuild facilities.

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Location suitability: As the unincorporated service area has changed significantly with annexations and incorporations over the past two decades, a number of facilities are no longer sited in the best locations to serve the core unincorporated service areas. In addition, facilities sites have certain size, land use, zoning, environmental and other requirements. Because RSD's facilities have been sited, acquired, and developed ad hoc over a very long period of time, many current facilities have issues related to their location (i.e. the Fall City site is located in the Snoqualmie River Floodplain). The Roads Services ~~((d))~~ Division assessed each facility according to a set of criteria that considered travel time, size, land use issues, and many other factors.

Functional/operational deficiencies: Road Services facilities were also assessed against a set of functional criteria to identify deficiencies from a functional/operational perspective. The functional/operational criteria include covered and heated bays for vehicle and equipment storage; covered sand and bulk salt storage for snow and ice operation; and adequate administrative and crew facilities.

Identified Needs: The consultant identified the following types of facility needs:

- Move and co-locate with WSDOT (including facility expansion)
- Construct and expand permanent facilities
- Relocate and construct or expand permanent facilities
- Enhance two emergency response satellite facilities
- Major renovation of existing facilities
- High Priority Maintenance and Repair (septic system replacement, fencing, doors and windows, HVAC Systems, roof repairs, and interior improvements electrical, plumbing)

Facility Maintenance: ~~((-))~~ Facilities include any properties operated at remote offices, shops, and yards and pit sites. The needs associated with efficiently maintaining and operating these facilities includes, but is not limited to the following: yard maintenance, cleaning, utility service, and building security, and work as needed (carpentry, electrical repair, painting, fence repair, machinery service, structural repairs, and plumbing).

Chapter 3 – Transportation Modeling

The Transportation Needs Report is part of the King County Comprehensive Plan. Travel demand forecasting for the Transportation Needs Report fulfills several requirements for the Transportation element of the King County Comprehensive Plan; these requirements can be found at RCW 36.70A.070(6)(a). They consist of the following: 1. Traffic forecasts of 10 years or more: TNR forecasts are for 2031, 15 years from the expected adoption of the TNR in 2016. 2. Land use assumptions: Regionally adopted household, population and employment data are key inputs into the traffic forecasts used. 3. Intergovernmental coordination: Travel forecasts used for the TNR are based on land use forecast growth target assumptions agreed to regionally by a coalition of jurisdictions in King County. 4. Estimated traffic impacts to state-owned facilities: Year 2031 travel forecasts for state facilities were analyzed as part of a deficiency analysis. 5. Consistency of plans: the PSRC solicited input from member jurisdictions in the development of their travel model, and forecast land use and road improvement assumptions were used for the PSRC's Transportation 2040 plan.

Travel Demand Forecasting at King County

Travel demand forecasting is the process of estimating the number of vehicles that will use a particular transportation facility in the future. Travel forecasting begins with the collection of current traffic data. This traffic data is combined with other known data, such as population, employment and trip rates to develop a traffic demand model for the existing situation. Coupling it with projected data for population, employment, etc., results in estimates of future traffic. Traffic forecasts are used in transportation policy, planning, and engineering, to determine demand and provide the basis for calculating the capacity of infrastructure and determining level of service performance.

The official travel forecasting model at the ~~((Puget Sound Regional Council))~~ PSRC ~~(())~~ is called 4k. It was used in development of the PSRC's Transportation 2040 Plan update in 2014, and is being used for the 2016 King County Comprehensive Plan update. The 4k model is a Trip-Based Model. A trip-based model estimates daily travel patterns and conditions within the four counties (King, Kitsap, Pierce, and Snohomish) of the Puget Sound region.²

The 4k model relies upon population and employment forecasts from the land use model at PSRC. The model is used to generate forecasts to provide travel measures for use in regional analysis. For every household in the region, the model estimates how many trips are made each day, where they go, what time of day they travel, which modes they use, and which routes they follow.

² Puget Sound Regional Council, "Travel Demand Forecasting," Analysis and Forecasting at PSRC, October 2009, http://www.psrc.org/assets/2938/Travel_Demand_White_Paper_2009_final.pdf.

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Prior to the 4k model, King County used a custom model based on an older generation of the PSRC's Trip-Based Model. The major difference is that the King County model used localized traffic data, including ~~((C))~~ concurrency and local development data specific to unincorporated King County, whereas the PSRC model used regional level data. Following the incorporation of remaining major urban portions of King County, ~~((U))~~ unincorporated King County is primarily a rural area with an older, transportation infrastructure with less density, much lower growth levels, and mature and stable growth patterns. A highly specialized and detailed travel demand model is no longer needed, so in the interest of program and cost efficiency, as well as to ensure regional planning consistency, King County adopted the ~~((PSRC))~~ 4k model in 2015.

Forecasted ~~((pm))~~ P.M. peak hour (afternoon rush hour³) traffic volumes were reviewed for indications of potential level-of-service problems. King County staff used PSRC Travel Model output data to analyze deficiencies for the forecast year 2031. The Travel Model's afternoon rush hour field covers a three hour time period for both directions of vehicle travel. The latest model forecast showed fewer deficiencies than were forecasted in 2012. This change can be attributed in part to differences in travel models, however these differences are not as great in ~~((U))~~ unincorporated King County, where the PSRC has increased the level of detail in recent versions of its model.

Capacity Projects Derived from PSRC Travel Model for Unincorporated King County

No additional capacity projects were proposed as a result of the deficiency analysis performed for the TNR. Most of the remaining deficiencies are on unincorporated arterial roadways with severe congestion levels and significant cost or engineering challenges dating back many years, and which are unlikely to see improvement without very significant investments.

³ Defined by PSRC as 3:00 pm – 6:00 pm

Chapter 4 – Drivers of Change Affecting Transportation in Unincorporated King County

Puget Sound Regional Demographic and Employment Trends

The most powerful indicators of how people travel are where they live and work. The Puget Sound region is expected to continue to grow jobs and urbanize, creating more demands on a transportation system that has been outgrown. New forecasts from the ~~((Puget Sound Regional Council))~~ PSRC indicate population in the region is expected to reach about five million people by 2040, an approximately 30 percent increase from 2014. This substantial increase in population will create the need for more housing, employment and services, creating significant impacts on travel patterns and demands.

The Puget Sound region's current transportation system reflects and is guided by land use patterns developed through decades of growth. As the region continues to grow in the future, its demographic profile will continue to evolve and changes may likely accelerate. Future transportation system users will include a wider range of ages, and be more ethnically and racially diverse. As ~~((knowledge economy))~~ jobs increasingly locate into large city centers, alternative modes of travel including transit and non-motorized modes will become increasingly important.

The Millennial Generation (people in their 20s and early 30s in 2015) has the potential to lead lasting change in regional housing and transportation choices. Current trends suggest this younger generation, nationwide, is less car-focused than older generations and values housing locations near mass transit or within walking or biking distance to work, thus making fewer trips by car.¹ As the Seattle area ranks as a top destination for young professionals both locally and nationally, this could signal a greater change in transportation patterns in the region. The retiring Baby Boomer generation displays similarly more urban-oriented housing choices than past retiring generations. Retirees are increasingly downsizing from suburban homes to city apartments and small houses for pedestrian and transit oriented ~~((-))~~ access to cultural activities and lifestyle amenities.

The region is and will remain a relatively affluent region, with higher wages lead by technology companies and technology workers throughout the regional economy.² Their willingness to pay for transportation choices that they value remains high, at least for now. In contrast, lower income populations will face increasing economic challenges as housing, transportation, and other living costs escalate.

Uncertainty lingers, however, over the long-term effects on housing and transportation, given the newness of the younger and older generations' lifestyle choices. In the long-run, if these

¹ Ibid., 15, 18–20.

² Ibid., 38–39.

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trends continue, the region's demographics could increase demand for higher density housing in compact, walkable neighborhoods and a balanced transportation system that enables these land use patterns.

Puget Sound Transportation Trends

Commuting behavior in the region has been relatively consistent with the bulk of workers choosing to drive alone. Single-occupancy vehicle (SOV) travel will likely continue to be an important mode choice throughout the region as the lack of density and lack of funding makes mass transit service impractical in the rural area. According to findings from the PSRC's recent Regional Travel Survey, most trips in the region – 82% - are still in personal vehicles, but the share of trips by car has been declining steadily since the 1999 Regional Travel Survey.³ Overall, most trip lengths are the same as they have been in the past, and commute characteristics are mostly the same as well, with a slight increase in distance covered by drivers.⁴ Average commute times and distances have fluctuated only slightly, with average drive-alone distance increasing by a mile (to 12.2 miles in 2014) while average commute time wavered around 28 and 29 minutes between 1999 and 2014.

Future gas prices and potential roadway tolling will be significant contributors to further consolidating housing and employers. The regional transportation plan – Transportation 2040 – plans for a regional tolling system as both a way to raise critical funding for transportation capacity investments and to reduce peak-period demand on the transportation system.⁵ Several studies have been completed or are currently underway by the Washington State Department of Transportation, such as for State Route SR 167, SR 509 and Interstate 405. The evolution of tolling will likely continue on this pathway, with additional high-occupancy toll lanes brought into operation in the first decade of the plan.⁶ Also, major highway capacity projects will be at least partially financed through tolls. Eventually, in the later years of the plan, the intent is to manage and finance the highway network as a system of fully tolled facilities.

The second highest expense for a typical U.S. household is transportation. Gasoline prices are always unpredictable and volatile, mirroring crude oil prices which are determined in the global crude oil market by the worldwide demand for and supply of crude oil.⁷ Washington State's previous gas tax of 37.5-cents-per-gallon is one of the highest gas((-))_taxes in the United States and with the passing of the transportation package from the 2015 legislative session, will increase the present gas tax 11.9-cents-per-gallon phased in over three years to 49.4-cents-per-

³ Puget Sound Regional Council, "PSRC's 2014 Regional Travel Study: Key Comparisons of 1999, 2006, and 2014 Travel Survey Findings" (Puget Sound Regional Council, June 2015), 1.

⁴ *Ibid.*, 21.

⁵ "Adopted Transportation 2040 Plan," 39–42,46, accessed July 27, 2015, <http://www.psrc.org/transportation/t2040/t2040-pubs/final-draft-transportation-2040/>.

⁶ *Ibid.*, 47.

⁷ "Gas Prices Explained," *American Petroleum Institute*, accessed August 3, 2015, <http://www.gaspricesexplained.com/#/?section=gasoline-diesel-and-crude-oil-prices>.

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gallon - second nationally only to Pennsylvania.⁸ Combined with the current federal gas tax of 18.4-cents-per-gallon, a total of 67.8-cents-per-gallon will be added to the cost of gasoline for Washington drivers. With overall demand for oil trending up, the price of gas is increasing, making it reasonable to forecast not only \$4.00-per-gallon prices in the near-term, as the local and global economy continues to improve, but \$5.00-per-gallon prices and above in the decades to come.⁹

Transportation Trends in Unincorporated King County

Decades of annexations, declines in gas tax revenues, and the effects of voter initiatives within King County have all directly contributed to the decline of revenues needed to maintain and preserve King County's nearly 1,500 mile road network.¹⁰ King County Roads' financial forecasts show that revenues needed to sustain capital improvements will end in 2030 and despite significant efficiencies made by the agency, additional cuts to the operating budget will be required if additional revenues are not secured. King County Roads is operating under an unsustainable financial model with insufficient revenue to support unincorporated roadway infrastructure.

In addition, the majority of population, development, and employment growth have been within the Urban Growth Area, not in unincorporated King County.¹¹ Following adoption of King County's first Comprehensive Plan in 1994, the percent of growth in rural areas has generally declined each year¹² and the small growth-trend is expected to continue. The combined population of all small cities and towns is just 5.4% of the county total.¹³ With the majority of people and jobs located within the urban growth area, this leaves few employment options in the rural area and the necessity for rural residents to drive long distances to jobs in urban employment centers.

Unless changes are made to the state and regional transportation funding allocation process, federal, state and local transportation investments will continue to be focused within King County's Urban Growth Boundary serving the densest residential and employment centers, which enable local and regional transit improvements and active modes of travel. This leaves ~~(())~~ unincorporated King County with a more geographically dispersed population – traditionally more difficult to be served efficiently by transit. As transportation investments go to urbanized areas, King County may be forced to examine other transit service delivery

⁸ "Gasoline Tax," accessed August 3, 2015, <http://www.api.org/oil-and-natural-gas-overview/industry-economics/fuel-taxes/gasoline-tax>.

⁹ "U.S. Gasoline and Diesel Retail Prices," *U.S. Energy Information Administration*, accessed August 3, 2015, http://www.eia.gov/dnav/pet/pet_pri_gnd_dcus_nus_a.htm.

¹⁰ "Executive Constantine Names Panel to Address Sustainable Funding for Deteriorating County Bridges and Roads - King County," accessed September 14, 2015, <http://kingcounty.gov/elected/executive/constantine/News/release/2015/August/05-roads-task-force.aspx>.

¹¹ Puget Sound Regional Council, "Population of Cities and Towns," Puget Sound Trends (Puget Sound Regional Council, January 2015), 1, <http://www.psrc.org/data/trends>.

¹² King County, "The King County Buildable Lands Report 2014," Buildable Lands Report, July 23, 2014, 134.

¹³ *Ibid.*, 36.

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options, such as dial-a-ride, rideshare, and vanpool services in areas with little to no fixed route transit options. With high levels of commuting to jobs in the ~~((u))~~Urban ~~((g))~~Growth ~~((a))~~Area, but little available transit service, many rural unincorporated King County residents will continue to rely on autos to get to work while demand and usage of unincorporated roadways increases by those outside of the ~~((e))~~County driving into the urban centers.

King County's unincorporated road system supports more than ~~((one million))~~ one million trips per day with people across the region traveling to work, school, and recreation.¹⁴ The ~~((Puget Sound Regional Council))~~PSRC estimates that close to 92% of employed, rural study area residents travel to jobs inside the ~~((u))~~Urban ~~((g))~~Growth ~~((b))~~Boundary, and they travel about twice as far with an average commute of 22 miles.¹⁵ Just 9% of residents living in rural unincorporated areas work in those areas,¹⁶ illustrating the high level of unincorporated road use by residents coming from and to Pierce, Snohomish and other counties.

¹⁴ "Executive Constantine Names Panel to Address Sustainable Funding for Deteriorating County Bridges and Roads - King County."

¹⁵ "Adopted Transportation 2040 Plan," 4.

¹⁶ Puget Sound Regional Council, "Transportation 2040 Update - Appendix R: Rural Transportation Study," May 29, 2014, 4, <http://www.psrc.org/transportation/t2040/transportation-2040-update>.

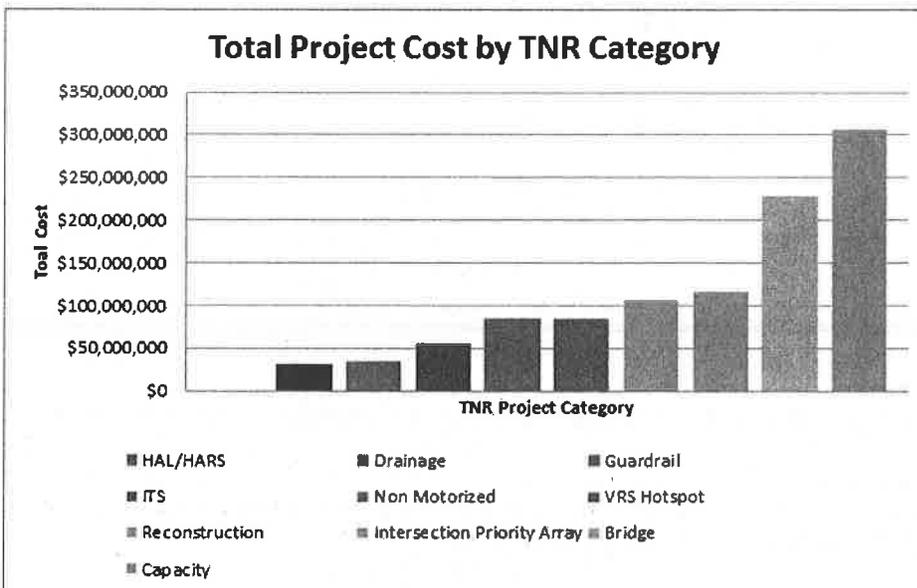
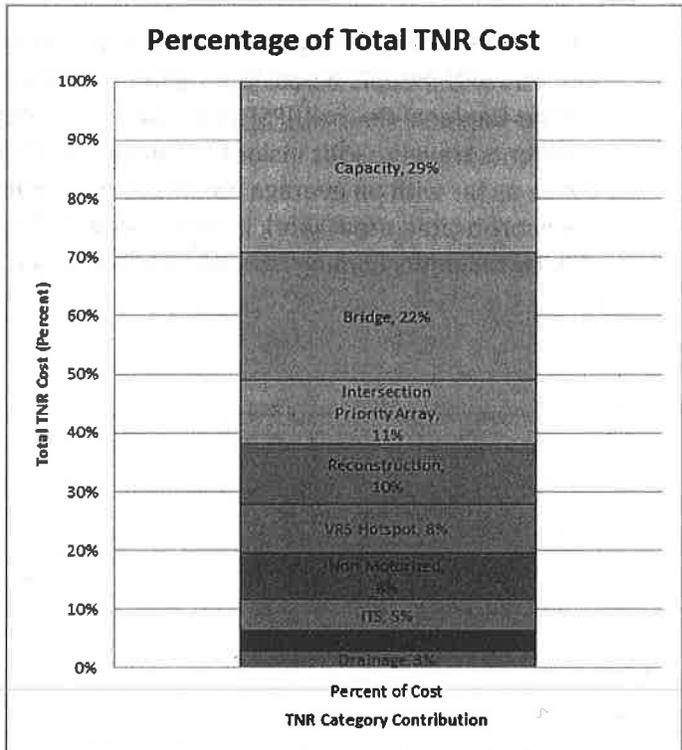
Chapter 5 Project Needs List - Cost Analysis

2016 TNR Project list – Composition and Characteristics

The 2016 TNR Project Needs List is composed of projects derived from the varied work within Road Services. Projects were organized within nine categories – Drainage, Guardrail, ITS (Intelligent Transportation Systems), Non-Motorized, VRS Hotspot (Vulnerable Road Segment), Reconstruction, Intersection Priority Array, Bridge and Capacity. This does not include the HAL/HARS category of projects.

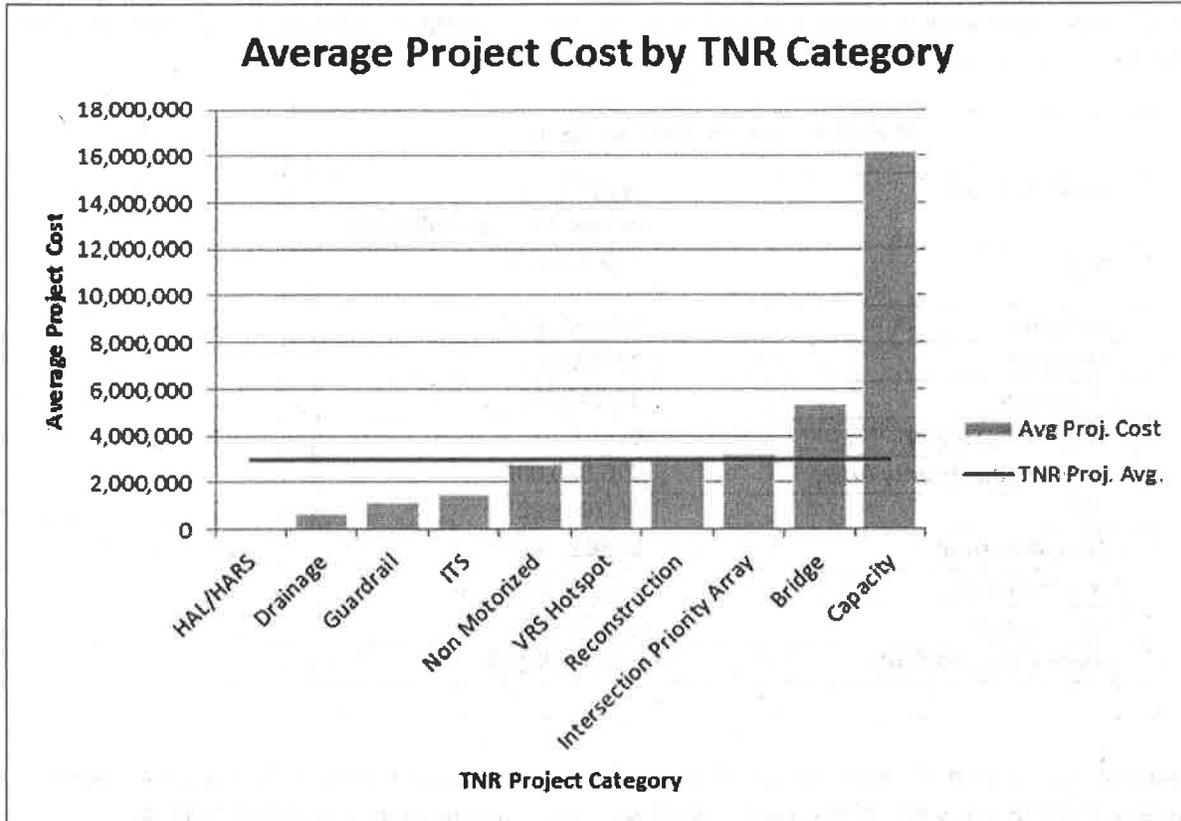
Total costs for ((d))Drainage and HAL/HARS (safety) projects are either not or under represented because processes for identifying those needs is underway. ((The 2016 TNR will be updated to include large, capital needs in those categories.))

Together the total cost estimates for((,)) Capacity and Bridge projects contributed over half of the total cost of the TNR Project Needs List (see graph: Percentage of Total TNR Cost). This is attributed to the significantly higher cost of engineering, materials, physical labor, environmental permitting and cost of right-of-way that goes into widening roads, reconfiguring intersections for roundabouts, and replacing/repairing bridges compared to relatively smaller-scale projects such as guardrail or dynamic messaging boards.



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Viewing the project list by average project cost shows the same ascending pattern as by percentage and total project cost (see graph: Average Project Cost by TNR Category). The graph illustrates a stark contrast in individual category project costs. For instance, there is a 135% difference in the average Capacity project cost than the average project cost in the TNR.



Chapter 6. Financial Analysis

Assumptions and Financial Plan

A financial analysis was done to compare the cost of projected needs to Road Services' anticipated revenue. The cost estimates for projects from previous versions of the TNR were updated to account for inflation using a 3% annual factor. Project costs were organized into the ten major asset categories as listed in the table below:

2016 TNR Costs by Asset Category	
Asset Category	2016 - 2035 Project Costs in dollars (\$)
Bridge	229,000,000
Capacity	307,000,000
Drainage	31,000,000
Guardrail	35,200,000
HAL/HARS (safety)	0
Intersection Priority Array	116,000,000
ITS	55,700,000
Non Motorized	84,900,000
Reconstruction	107,000,000
VRS Hotspot	85,900,000
Total 2016 TNR Costs	1,051,700,000

Available revenues of Road Fund Contribution, Grant Funding, and other minor sources were projected for the 20 years of the plan. The Road Fund Contribution is funded chiefly by a dedicated unincorporated area property tax and gas tax distribution. Property tax revenue projections are based on the most recent approved King County, Office of Economic and Financial Analysis forecast as of September 30, 2015. Gas tax projections reflect increases adopted by the Washington State Legislature in 2015 that for King County amount to \$500,000 in 2016 and 2017 and \$1.06 million annually from 2018 to 2031.

Total revenue needs are \$~~((1.08))~~1.05 billion, expressed in constant 2016 dollars and totaled through the year 2035. The TNR shortfall is calculated by subtracting the projected costs from projected revenues for the 20 year TNR period, 2016-2035.

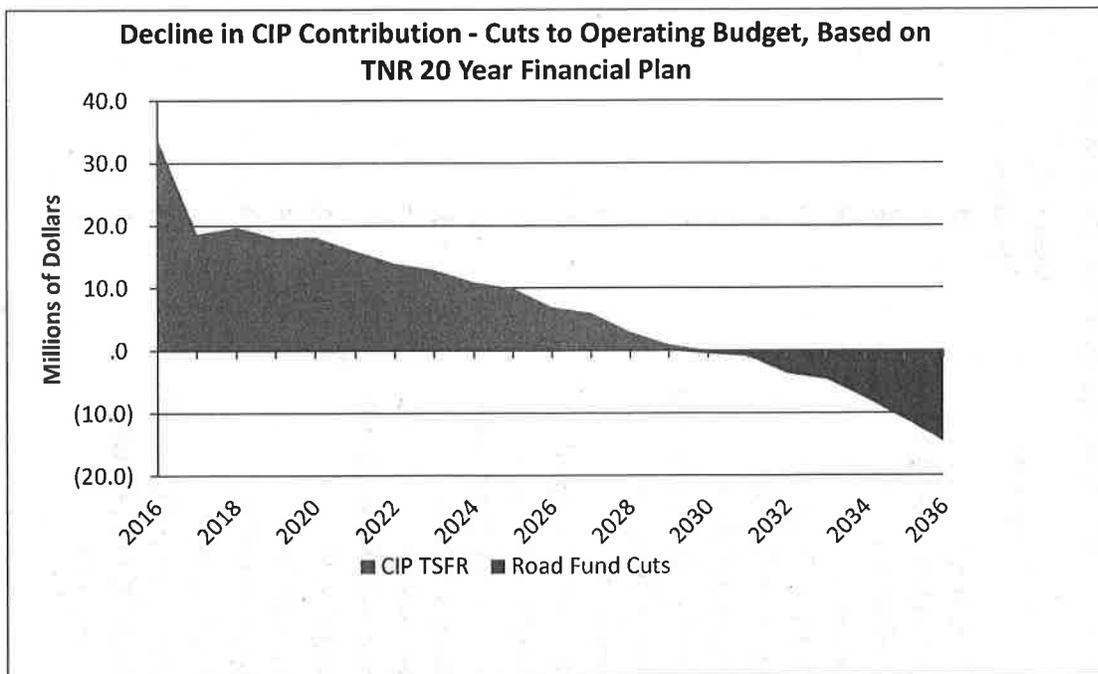
Funded Capital Costs	2016 - 2035
Overlay	140,000,000
Safety	59,501,000
Facilities	20,000,000
Total Capital Costs	219,501,000
Calculation of Shortfall for TNR projects	
Forecasted Revenue	289,349,991
Less: Capital Costs	(219,501,000)
Funds Available	69,848,991
Shortfall to fund 2016 TNR	(981,851,009)

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The total project costs that can be funded in this period are approximately \$70 million of the identified 2016 TNR however, when considering cash flow and the cost of Road Services' operating budget, projections show that there are insufficient revenues to fund capital projects after 2030. This is illustrated in the graph below.

Allocation of Funds Available	
Asset Category	2016 - 2035 Allocation
Bridge	31,043,998
Capacity	0
Drainage	36,217,998
Guardrail	2,587,000
HAL / HARS	0
Intersection Priority Array	0
ITS	0
Non Motorized	0
Reconstruction	0
VRS Hotspot	0
Total Needs	69,848,991

The allocation of available funding for the 20 year period was made to asset categories that align with Road Services' strategic priorities of safety, regulatory compliance and preservation. ~~((This allocation will change to include any HAL/HARS (safety) projects that are amended into the 2016 TNR, upon completion of the new safety project list currently being developed.))~~ In addition, completion of Roads' drainage inventory assessment will most likely increase costs and allocations for that asset category. Existing funding for the Roads Capital Improvement Project (CIP) list from the County Road Fund declines steadily and reaches zero in 2030.



NEEDS LIST for the Transportation Needs Report 2016

Needs are divided into twenty-three Map Areas. The Map Area Number is for use with the map atlas.
The Needs List is sorted alphabetically in the following order:

	Map Area	Map Area Number
1	Carnation	14
2	Covington/Black Diamond	10
3	Cumberland	18
4	Duvall	13
5	East Enumclaw	19
6	East Federal Way	5
7	East North Bend	22
8	East Renton/Lake Youngs	9
9	Kent/Des Moines	4
10	Mount Si	21
11	Newcastle/Issaquah	8
12	North Enumclaw	11
13	North Fork Snoqualmie	20
14	North Vashon	1
15	Ravensdale	17
16	Redmond/Sammamish	7
17	Skykomish	23
18	Snoqualmie	15
19	South Enumclaw	12
20	South Vashon	2
21	Tiger Mountain/Hobart	16
22	White Center/Skyway	3
23	Woodinville	6

Legend for Needs List:

Product Family - From the Road Services Strategic Plan

Bridge - Bridge replacements and repairs

Capacity - Road widening

Drainage - Culverts

Guardrail - Guardrail installation and repair

ITS - Intelligent Transportation Systems

Intersection Priority Array - Intersection improvements

Non Motorized - Sidewalks, walkways, and road shoulders

Reconstruction - Major roadway repairs

VRS Hotspot - Vulnerable road segments

Note: Project costs updated in January 2016

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Carnation (14)					
Corridor: NE Ames Lake Rd					
OP-RD-4	NE Ames Lake Rd: Union Hill Rd to State Route 202	Realign and widen lanes	Traffic Control Devices	Intersection Priority Array	\$ 9,990,000
Corridor: NE Tolt Hill Rd					
OP-RD-37	NE Tolt Hill Rd: From Tolt Hill Bridge to 500 feet west of State Route 203	Reconstruct roadway	Roadway	Reconstruction	\$ 1,780,000
RC-32	Tolt Hill Rd: From Tolt Hill Bridge to State Route 203	Armor shoulders to reduce washouts during floods	Roadside	VRS Hotspot	\$ 104,000
Corridor: NE Union Hill Rd					
ITS-11	NE Union Hill Rd: From 238th Ave NE to NE Ames Lake Rd	Cameras, speed warning system, vehicle detection	Traffic Control Devices	ITS	\$ 200,000
Corridor: West Snoqualmie Val Rd NE					
RC-15-1	West Snoqualmie Valley Rd NE: From NE 80th St to Ames Lake Carnation Rd NE	Reconstruct roadway	Roadway	Reconstruction	\$ 10,100,000
Corridor: Misc.					
BR-2133A	Sikes Lake Trestle: 284th Ave NE at Sikes Lake, about 0.5 mile east of State Route 202	Replace bridge	Bridges and Structures	Bridge	\$ 9,610,000
BR-257Z	Horseshoe Lake Creek Bridge: 310th Ave NE at Horseshoe Lake Creek	Replace bridge	Bridges and Structures	Bridge	\$ 2,190,000
BR-916A	West Snoqualmie River Road Bridge: West Snoqualmie River Road over a slough to the Snoqualmie River	Replace bridge	Bridges and Structures	Bridge	\$ 1,580,000
GR-115	East Ames Lake Dr NE: From W Ames Lake Dr NE to W Ames Lake Dr NE	Construct guardrail	Roadside	Guardrail	\$ 23,600
GR-15-10	NE Tolt River Rd: From Carnation city limits to NE 80th St	Construct guardrail	Roadside	Guardrail	\$ 1,440,000
GR-15-18	SE 24th St / Lake Langlois Rd: From State Route 203 to end of road	Construct guardrail	Roadside	Guardrail	\$ 1,710,000
GR-15-30	310th Ave NE / NE 60th St: From NE Carnation Farm Rd to State Route 203	Construct guardrail	Roadside	Guardrail	\$ 650,000
GR-15-37	NE 100th St: From W Snoqualmie Valley Rd NE to 284th Ave NE	Construct guardrail	Roadside	Guardrail	\$ 792,000
GR-80	West Snoqualmie River Rd SE: From SE 24th St to NE Tolt Hill Rd	Construct guardrail	Roadside	Guardrail	\$ 102,000
ITS-25	W Snoqualmie River Rd SE: From SE 24th St to NE Tolt Hill Rd and State Route 203	Cameras, vehicle detection, pavement sensors	Traffic Control Devices	ITS	\$ 521,000
RC-18	West Snoqualmie River Rd NE: From NE Tolt Hill Rd to SE 24th St	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 385,000
RC-34	284th Ave NE: From NE 100 St to NE Carnation Farm Rd	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 216,000
RC-36	NE 80th St: From West Snoqualmie Valley Rd NE to Ames Lake-Carnation Rd	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 1,580,000
RC-38	NE 100th St: From West Snoqualmie Valley Rd to 284th Ave NE	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 706,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Covington/Black Diamond (10)					
Corridor: Kent Black Diamond Rd SE					
BR-30860X	Berrydale OX Bridge: Kent Black Diamond Rd SE over the railroad, at SE 292nd St (Jenkins Creek)	Replace bridge	Bridges and Structures	Bridge	\$ 10,100,000
DR-15-17	Kent Black Diamond Rd SE & SE 292nd St at Jenkins Creek	Replace undersized culvert	Drainage	Drainage	\$ 1,160,000
Corridor: SE 216th St					
NM-5049	SE 216th St: From SE 276th Ave SE to Maxwell Rd SE	Provide nonmotorized facility	Roadside	Non Motorized	\$ 1,310,000
OP-INT-95	SE 216th Way & Dorre Don Way	Construct turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 376,000
Corridor: SE 216th Way					
RC-129	SE 216th Way: From State Route 169 to 244th Ave SE	Reconstruct roadway 1.13 miles	Roadway	Reconstruction	\$ 2,270,000
Corridor: SE 240th St					
DR-10	SE 240th St & 172nd Ave SE at Little Soos Creek	Replace undersized culvert with a bridge structure	Drainage	Drainage	\$ 1,720,000
NM-4041	SE 240th St: From 156th Ave SE to 172nd Ave SE	Widen walkway	Roadside	Non Motorized	\$ 29,300
NM-5068	SE 240th St: From 148th Ave SE to 164th Ave SE	Provide nonmotorized facility	Roadside	Non Motorized	\$ 726,000
NM-5069	SE 240th St: From 164th Ave SE to 180th Ave SE	Provide nonmotorized facility	Roadside	Non Motorized	\$ 726,000
Corridor: SE Covington-Sawyer Rd					
OP-RD-41	SE Covington-Sawyer Rd: From Thomas Rd to 216th Ave SE	Realign roadway	Traffic Control Devices	Intersection Priority Array	\$ 9,990,000
RC-6	SE Covington-Sawyer Rd: From Covington city limits to 216th Ave SE	Road rehabilitation (pavement treatment)	Roadway	Reconstruction	\$ 1,750,000
Corridor: SE Petrovitsky Rd					
IPA-26	SE Petrovitsky Rd & Sweeney Rd SE	Construct traffic signal with turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 900,000
SW-13	SE Petrovitsky Rd & Sweeney Rd SE	Construct roundabout or north and east turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 1,690,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Corridor: Misc.					
DR-9	164th Ave SE & SE 225th St	Replace failing culvert	Drainage	Drainage	\$ 1,110,000
GR-15-38	184th Ave SE / Peter Grubb Rd: From SE Lake Youngs Rd to SE 224th St	Construct guardrail	Roadside	Guardrail	\$ 757,000
GR-88	156th Ave SE: From SE 240th St to SE 251st St/Covington city limits	Construct guardrail	Roadside	Guardrail	\$ 385,000
IPA-33	164th Pl SE & SE Covington-Sawyer Rd	Construct turn lane and traffic signal	Traffic Control Devices	Intersection Priority Array	\$ 1,650,000
NM-0202	195th Ave SE: From E Lake Morton Dr SE to SE 320th St	Construct asphalt shoulder (west side)	Roadside	Non Motorized	\$ 96,800
NM-4033	164th Ave SE: From SE 224th St to SE 240th St	Widen pathway and improve lighting	Roadside	Non Motorized	\$ 104,000
NM-5034	168th Ave SE: From Kent-Black Diamond Rd SE to SE Auburn Black Diamond Rd	Provide nonmotorized facility	Roadside	Non Motorized	\$ 873,000
NM-5050	Sweeney Rd SE/SE Petrovitsky: From 196th Ave SE to SE 232nd St	Provide nonmotorized facility	Roadside	Non Motorized	\$ 1,210,000
NM-9980	168th Way SE & Covington Creek	Widen bridge and construct sidewalk (east side)	Roadside	Non Motorized	\$ 66,400
SW-56	164th Ave SE & SE 240th St	Construct roundabout	Traffic Control Devices	Intersection Priority Array	\$ 1,460,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Cumberland (18)					
Corridor: SE 400th Way					
NM-5010	SE 400th Way: From SE 400th St to SE 392nd St	Reconstruct roadway 2.18 miles	Roadway	Reconstruction	\$ 2,010,000
Corridor: SE Green River Headworks Rd					
OP-INT-72	Cumberland Kanaskat Rd SE & SE Greenriver Headworks Rd	Reconstruct intersection with signal improvements	Traffic Control Devices	Intersection Priority Array	\$ 90,600
Corridor: Veazie-Cumberland Rd SE					
DR-15-11	284th Ave SE/Veazie-Cumberland Rd SE & North Fork Newaukum Creek	Replace failing culvert	Drainage	Drainage	\$ 822,000
NM-5007	Veazie-Cumberland Rd SE: From SE 384th St to SE 416th St	Provide nonmotorized facility	Roadside	Non Motorized	\$ 1,490,000
Corridor: Misc.					
BR-3035A	Coal Creek Bridge: SE Lake Walker Rd at Coal Creek. 1.5 mile southeast of Veazie-Cumberland Rd SE	Replace bridge	Bridges and Structures	Bridge	\$ 3,230,000
GR-15-32	292nd Ave SE/SE 416th St: From SE 392nd St to 284th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 1,080,000
GR-15-33	278th Way SE: From SE 392nd St to SE 416th St	Construct guardrail	Roadside	Guardrail	\$ 857,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Duvall (13)					
Corridor: Misc.					
BR-5032	Stossel Creek Bridge: Stossel Creek Rd NE at Stossel Creek, about 6.2 miles northeast of Kelly Rd NE	Replace bridge	Bridges and Structures	Bridge	\$ 2,560,000
BR-5034A	Lake Joy Bridge: NE Lake Joy Dr & 346th Pl NE	Replace bridge	Bridges and Structures	Bridge	\$ 2,000,000
DR-15-12	NE Lake Joy Rd & Cherry Creek. North of NE Moss Lake Rd	Replace undersized culvert	Drainage	Drainage	\$ 1,690,000
DR-4	NE 106th St & 314th Ave NE	Replace failing culvert	Drainage	Drainage	\$ 563,000
DR-5	NE 195th St & Margaret Creek. West of 327th Ave NE	Replace failing culvert	Drainage	Drainage	\$ 563,000
GR-15-23	NE Lake Joy Rd: From Kelly Rd NE to W Lake Joy Dr NE	Construct guardrail	Roadside	Guardrail	\$ 982,000
GR-15-24	Mountain View Rd NE / 318th Ave NE: From NE Cherry Valley Rd to end of road	Construct guardrail	Roadside	Guardrail	\$ 645,000
GR-94	NE 124th St: From State Route 203 to end of road (286th Ave NE)	Construct guardrail	Roadside	Guardrail	\$ 725,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: East Enumclaw (19)					
Corridor: Misc.					
DR-3	SE 440th St at the 27000 block	Replace failing culvert	Drainage	Drainage	\$ 563,000
GR-103	SE 432nd St: From Enumclaw city limits to 284th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 339,000
GR-15-15	286th Ave SE/288th Ave SE: From SE 464th St to SE 480th St	Construct guardrail	Roadside	Guardrail	\$ 537,000
GR-86	284th Ave SE: From SE Mud Mountain Rd to SE 451st St	Construct guardrail	Roadside	Guardrail	\$ 537,000
NM-5008	SE 432nd St: From 284th Ave SE to Enumclaw city limits	Provide nonmotorized facility	Roadside	Non Motorized	\$ 969,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: East Federal Way (5)					
Corridor: 28th Ave					
NM-4066	28th Ave S: From S 349 St to S 360th St	Construct walkway	Roadside	Non Motorized	\$ 323,000
Corridor: 51st Ave S					
SW-21	51st Ave S & S 316th St	Construct roundabout or left-turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 1,690,000
Corridor: Military Rd S					
IPA-25	Military Rd S & S 360th St	Construct roundabout or signal with turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 1,690,000
NM-5014	Military Rd S: From Peasley Canyon Way S to State Route 161	Provide nonmotorized facility	Roadside	Non Motorized	\$ 9,670,000
Corridor: Peasley Canyon Rd S					
ITS-8	S Peasley Canyon Rd: From Military Rd S to Peasley Canyon Way S	Upgrade signal equipment and coordinate timing	Traffic Control Devices	ITS	\$ 2,570,000
Corridor: Peasley Canyon Way					
RC-42	Peasley Canyon Way S: From S Peasley Canyon Rd to Military Rd S	Construct retaining wall to prevent slides	Bridges and Structures	VRS Hotspot	\$ 664,000
Corridor: S 321st St					
OP-INT-100	S 321st St: From S Peasley Canyon Rd to 46th Pl S	Reconstruct 321st St approach; expand turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 2,250,000
SW-73	46th Pl S & S 321st St	Construct roundabout or signalized intersection	Traffic Control Devices	Intersection Priority Array	\$ 2,480,000
Corridor: S 360th St					
OP-RD-48	S 360th St: From State Route 161 to 28th Ave S	Construct a two-way left turn lane	Traffic Control Devices	Intersection Priority Array	\$ 4,750,000
Corridor: SE Auburn Black Diamond Rd					
RC-138	SE Auburn Black Diamond Rd: From SE Green Valley Rd to SE Lake Holm Dr	Reconstruct roadway 0.23 miles	Roadway	Reconstruction	\$ 367,000
RC-139	SE Auburn Black Diamond Rd: From SE Lake Holm Rd to 148th Way SE	Reconstruct roadway 2.18 miles	Roadway	Reconstruction	\$ 4,850,000
Corridor: SE Lake Holm Rd					
RC-140	SE Lake Holm Rd: From SE Auburn Black Diamond Rd to 147th Ave SE	Reconstruct roadway 1.64 miles	Roadway	Reconstruction	\$ 2,530,000
Corridor: Misc.					
BR-3015	Patton Bridge: SE Green Valley Rd at Green River, about 1.5 miles southeast of Highway 18	Replace bridge	Bridges and Structures	Bridge	\$ 25,100,000
NM-4067	32nd Ave S: From S 360th St to S 368th St	Construct walkway	Roadside	Non Motorized	\$ 323,000
RC-137	SE Auburn Black Diamond Rd: From Highway 18 to SE Green Valley Rd	Reconstruct roadway 0.18 miles	Roadway	Reconstruction	\$ 330,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: East North Bend (22)					
Corridor: Misc.					
GR-15-3	437th Ave SE: From Cedar Falls Way SE to SE 150th St	Construct guardrail	Roadside	Guardrail	\$ 99,700
GR-78	SE Middle Fork Rd: From North Bend city limits to 496th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 15,800
OP-RD-39	SE Mount Si Rd: From 452 AVE SE to 800' E	Realign roadway	Traffic Control Devices	Intersection Priority Array	\$ 502,000
OP-RD-54	SE Middle Fork Rd: From 496th Ave SE to 476th Ave SE	Reconstruct roadway	Roadway	Reconstruction	\$ 4,760,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: East Renton/Lake Youngs (9)					
Corridor: 140th Ave SE					
ITS-23	SE 204th Way / 140th Ave SE: From 137th Ave SE to SE 192nd St	Cameras, vehicle detection, synchronize signals	Traffic Control Devices	ITS	\$ 4,400,000
SW-81	SE 140th Ave SE & SE 200th St	Construct left-turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 1,690,000
Corridor: 154th Pl SE					
ITS-19	154th Pl SE / SE 142nd Pl: From State Route 169 to 156th Ave SE	Cameras, pavement sensors, speed warning system	Traffic Control Devices	ITS	\$ 237,000
OP-RD-25	154 Pl SE / SE 142 Pl: From SE Jones Rd to 156th Ave SE (Renton city limits)	Construct congestion relief measures	Roadway	Capacity-Major	\$ 5,270,000
Corridor: 164th Ave SE					
ITS-34	164th Ave SE: From SE 128th St to SE May Valley Rd	Cameras, vehicle detection, communications system	Traffic Control Devices	ITS	\$ 1,840,000
Corridor: 196th Ave SE					
RC-50	196th Ave SE: From SE 162nd St to SE 170th St	Construct a retaining wall to prevent slides	Bridges and Structures	VRS Hotspot	\$ 1,120,000
Corridor: Cedar Grove Rd SE					
BR-83D	Issaquah Creek Bridge: Cedar Grove Rd SE at Issaquah Creek, about 0.5 mile north of SE 156th	Replace bridge	Bridges and Structures	Bridge	\$ 3,040,000
Corridor: Issaquah Hobart Rd SE					
BR-1384A	Fifteen Mile Creek Bridge: Issaquah Hobart Rd SE at Fifteenmile Creek, south of SE May Valley Rd	Replace bridge	Bridges and Structures	Bridge	\$ 8,230,000
CP-15-2	Issaquah Hobart Rd SE: From Issaquah city limits to Cedar Grove Rd SE	Construct congestion relief measures	Roadway	Capacity-Major	\$ 29,600,000
ITS-15	Issaquah Hobart Rd SE: From Cedar Grove Rd SE to Highway 18	Cameras, message signs, weather stations	Traffic Control Devices	ITS	\$ 851,000
OP-INT-124	Issaquah-Hobart Rd SE & SE May Valley Rd	Construct roundabout	Traffic Control Devices	Intersection Priority Array	\$ 2,580,000
RC-118	Issaquah Hobart Rd SE: From S Issaquah city limits to SE May Valley Rd	Reconstruct roadway 1.86 miles	Roadway	Reconstruction	\$ 1,030,000
RC-119	Issaquah Hobart Rd SE: From SE May Valley Rd to Cedar Grove Rd SE	Reconstruct roadway 0.98 mile	Roadway	Reconstruction	\$ 2,750,000
RC-120	Issaquah Hobart Rd SE: From SE 156th St to Cedar Grove Rd SE	Reconstruct roadway 1.2 miles	Roadway	Reconstruction	\$ 2,360,000
RC-121	Issaquah Hobart Rd SE: From SE 156th St to Highway 18	Reconstruct roadway 2.27	Roadway	Reconstruction	\$ 4,050,000
Corridor: SE 128th St					
GR-15-5	SE 128th St: From Renton city limits (158th Ave SE) to 175th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 597,000
ITS-28	SE 128th St: From 158th Ave SE to SE May Valley Road	Cameras, vehicle detection, synchronize signals	Traffic Control Devices	ITS	\$ 5,280,000
OP-RD-21	SE 128th St: From Patriot Way SE to 168th Ave SE	Improve sight distance and construct turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 1,480,000
Corridor: SE 204th Way					
BR-3109B	Lake Youngs Way Bridge: SE Lake Youngs Way at Big Soos Creek. 0.3 miles northeast of SE 208th St	Replace bridge	Bridges and Structures	Bridge	\$ 2,000,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Corridor: SE May Valley Rd					
BR-493C	Fifteen Mile Creek Bridge: SE May Valley Rd at Fifteenmile Creek, west of Issaquah Hobart Rd SE	Replace bridge	Bridges and Structures	Bridge	\$ 4,170,000
ITS-29	SE May Valley Rd: From State Route 900 to Issaquah Hobart Rd SE	Cameras, vehicle detection, road weather sensors	Traffic Control Devices	ITS	\$ 346,000
OP-RD-22	SE May Valley Rd: From SE 128th Way to Issaquah Hobart Rd SE	Widen travel lanes	Traffic Control Devices	Intersection Priority Array	\$ 9,320,000
OP-RD-26	SE May Valley Rd: From State Route 900 to SE 128th Way	Improve sight distance	Traffic Control Devices	Intersection Priority Array	\$ 7,800,000
Corridor: SE Petrovitsky Rd					
CP-15	140th Ave SE & SE Petrovitsky Rd	Construct congestion relief measures	Roadway	Capacity-Major	\$ 17,400,000
CP-15-4	SE Petrovitsky Rd: From 151st Ave SE to SE 184th St	Construct congestion relief measures	Roadway	Capacity-Major	\$ 10,300,000
IPA-1	SE Petrovitsky Rd: From 140th Ave SE to 143rd Ave SE	Street lighting for existing turn lanes and tapers	Traffic Control Devices	Intersection Priority Array	\$ 412,000
ITS-24	SE Petrovitsky Rd: From 151st Ave SE to Highway 18	Cameras, vehicle detection, weather station	Traffic Control Devices	ITS	\$ 10,200,000
OP-INT-106	SE Petrovitsky Rd & SE 192nd St	Construct southeast bound left turn lane	Traffic Control Devices	Intersection Priority Array	\$ 886,000
RC-3	SE Petrovitsky Rd: From 134th Ave SE to 143rd Ave SE	Road reconstruction	Roadway	Reconstruction	\$ 3,690,000
Corridor: Misc.					
BR-1741A	Issaquah Creek Bridge: 252nd Ave SE at Issaquah Creek, south of Issaquah Hobart Rd SE	Replace bridge	Bridges and Structures	Bridge	\$ 8,030,000
BR-3109A	Soos Creek Bridge: SE 216th St at Big Soos Creek, about 0.3 mile east of 132nd Ave SE	Replace bridge	Bridges and Structures	Bridge	\$ 2,380,000
BR-3202	Maxwell Road Bridge: 225th Ave SE/Maxwell Rd SE cattle crossing	Replace bridge	Bridges and Structures	Bridge	\$ 1,470,000
BR-83B	Issaquah Creek Bridge: SE 156th St at Issaquah Creek, east of Cedar Grove Rd SE	Replace bridge	Bridges and Structures	Bridge	\$ 2,250,000
DR-15-3	229th Dr SE & McDonald Creek, north of SE 139th Ct	Construct scour mitigation measures	Drainage	Drainage	\$ 255,000
GR-15-14	SE 208th St: From 244th Ave SE to 276th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 1,110,000
GR-15-19	236th Ave SE / 235th Ave SE: From SE 196th St to SE Norvydan Rd	Construct guardrail	Roadside	Guardrail	\$ 586,000
GR-15-35	SE 156th St: From SE Cedar Grove Rd to Issaquah Hobart Rd SE	Construct guardrail	Roadside	Guardrail	\$ 375,000
GR-15-36	SE Mirrormont Dr: From Issaquah Hobart Rd SE to Tiger Mountain Rd SE	Replace jersey barrier with guardrail	Roadside	Guardrail	\$ 1,110,000
GR-15-8	SE 127th St: From SE May Valley Rd to 206th Pl SE	Construct guardrail	Roadside	Guardrail	\$ 425,000
NM-5038	SE 208th St: From 148th Ave SE to Kent city limits	Provide nonmotorized facility	Roadside	Non Motorized	\$ 362,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Kent/Des Moines (4)					
Corridor: 148th Ave SE					
BR-3108	Soos Creek Bridge: 148th Ave SE at Soos Creek, about 0.2 mile north of SE 240th	Replace bridge	Bridges and Structures	Bridge	\$ 2,450,000
SW-20	148th Ave SE & SE 224th St	Construct roundabout and modify approach grades	Traffic Control Devices	Intersection Priority Array	\$ 2,810,000
Corridor: Military Rd S					
CP-5	Military Rd S: From S 272nd St to S Star Lake Rd	Construct congestion relief measures	Roadway	Capacity-Major	\$ 7,040,000
Corridor: S 272nd St					
OP-INT-120	40th Ave S & S 272nd St	Add turn lanes on 272nd, rebuild traffic signal	Traffic Control Devices	Intersection Priority Array	\$ 2,810,000
Corridor: S 277th St					
BR-3126	S 277th St Bridge: Mullen Slough, west of State Route 167	Replace bridge	Bridges and Structures	Bridge	\$ 2,470,000
CP-15-6	S 277th St & 55th Ave S / S Star Lake Rd	Construct congestion relief measures	Traffic Control Devices	Capacity-Major	\$ 3,680,000
DR-2	S 277th St & 55th Ave S	Drainage improvement to reduce property flooding	Drainage	Drainage	\$ 563,000
Corridor: S 288th St					
IPA-3	S 288th St: From Federal Way city limits (I-5) to Auburn city limits (51st Ave S)	Restripe road from 4 to 3 lanes, modify the signal	Traffic Control Devices	Intersection Priority Array	\$ 955,000
Corridor: West Valley Hwy N					
DR-15-10	West Valley Hwy N, 1300 Ft S of S 277th	Install box culvert by trenching	Drainage	Drainage	\$ 694,000
Corridor: Misc.					
BR-3109	Soos Creek Bridge: SE 224th St at Soos Creek, about 0.3 mile east of 132nd Ave SE	Replace bridge	Bridges and Structures	Bridge	\$ 2,000,000
DR-15-9	Green River Rd S & 94th PI S	Replace failing culvert	Drainage	Drainage	\$ 1,230,000
GR-15-29	S 282nd St: From 46th Ave SE to 48th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 67,200
GR-15-39	94th PI S: From Kent city limits to Green River Rd	Construct guardrail	Roadside	Guardrail	\$ 527,000
NM-4042	38th Ave S: From S 304th St to S 308th St	Pave shoulders (east side)	Roadside	Non Motorized	\$ 104,000
NM-5015	Green River Rd: From Kent city limits (S 259th St) to Kent city limits (S 277th St)	Provide nonmotorized facility	Roadside	Non Motorized	\$ 10,600,000
NM-9970	34th Ave S: From S 288th St to S 298th St	Construct sidewalk (west side)	Roadside	Non Motorized	\$ 607,000
NM-9971	36th PI S/ S 294 St/ 45 PI S: From S 298th St to S 288th St	Construct sidewalk (west side)	Roadside	Non Motorized	\$ 927,000
RC-24	S 304th St: From 32nd Ave S to 37th Ave S	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 241,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Mount Si (21)					
Corridor: Misc.					
BR-122N	Tate Creek Bridge: SE 73rd St at Tate Creek, west of 440th Ave SE	Replace bridge	Bridges and Structures	Bridge	\$ 6,020,000
RC-8	N Fork Rd SE: From 428th Ave SE to Lake Hancock Rd	Road reconstruction and drainage infrastructure	Roadside	Reconstruction	\$ 185,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Newcastle/Issaquah (8)					
Corridor: Misc.					
GR-15-34	169th Ave SE/SE Licorice Way: From SE 112th St to end of road (173rd Ave SE)	Construct guardrail	Roadside	Guardrail	\$ 938,000
OP-RD-24	SE May Valley Rd: From Renton city limits (148th Ave SE) to State Route 900	Widen travel lanes	Traffic Control Devices	Intersection Priority Array	\$ 19,900,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: North Enumclaw (11)					
Corridor: 244th Ave SE					
NM-5012	244th Ave SE: From Enumclaw city limits (SE 436th) to SE 400th St	Provide nonmotorized facility	Roadside	Non Motorized	\$ 10,600,000
Corridor: SE Auburn Black Diamond Rd					
DR-15-16	SE Auburn Black Diamond Rd at Krisp Creek	Replace undersized culvert	Drainage	Drainage	\$ 1,130,000
IPA-12	SE Auburn Black Diamond Rd & 190th Ave SE	Realign intersection	Traffic Control Devices	Intersection Priority Array	\$ 773,000
ITS-27	SE Auburn Black Diamond Rd: From Kent Black Diamond Rd SE to SE Lake Holm Rd	Vehicle detection/flasher system, slide detection	Traffic Control Devices	ITS	\$ 174,000
Corridor: SE Lake Holm Rd					
OP-RD-44	SE Lake Holm Rd: From East Lake Holm Dr SE to 170th Pl SE	Construct congestion relief measures	Roadway	Capacity-Major	\$ 1,050,000
Corridor: Thomas Rd SE					
OP-INT-97	Thomas Rd SE & Kent Black Diamond Rd SE	Realign intersection	Traffic Control Devices	Intersection Priority Array	\$ 912,000
Corridor: Misc.					
BR-3020	Green Valley Rd Bridge: SE Green Valley Rd, about 5.5 miles east of Highway 18	Replace bridge	Bridges and Structures	Bridge	\$ 2,820,000
BR-3022	Green Valley Rd Bridge: SE Green Valley Rd, about 6.7 miles east of Highway 18	Replace bridge	Bridges and Structures	Bridge	\$ 2,820,000
BR-3030	SE 380th St Bridge: SE 380th St & SE 383rd Way, about 1 mile west of State Route 169	Replace bridge	Bridges and Structures	Bridge	\$ 2,000,000
GR-15-28	SE 384th St/ SE 383rd St/ SE 380th St: From 244th Ave SE to State Route 169	Construct guardrail	Roadside	Guardrail	\$ 957,000
RC-142	SE Green Valley Rd: From 243rd Ave SE to State Route 169	Reconstruct roadway 1.3 miles	Roadway	Reconstruction	\$ 2,210,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: North Fork Snoqualmie (20)					
Corridor: Misc.					
BR-364A	Deep Creek Bridge: North Fork Rd SE, about 13.7 miles north of North Bend	Replace bridge	Bridges and Structures	Bridge	\$ 3,590,000
RC-19	North Fork Rd SE & N Fork Snoqualmie River	Construct retaining wall to prevent slides	Bridges and Structures	VRS Hotspot	\$ 104,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: North Vashon (1)					
Corridor: SW Cove Rd					
RC-58	Crescent Dr SW: From Westside Highway SW to SW Cove Road	Reconstruct roadway	Roadway	VRS Hotspot	\$ 692,000
Corridor: Vashon Hwy SW					
SW-96	Vashon Highway SW & SW Cemetery Rd	Construct roundabout	Traffic Control Devices	Intersection Priority Array	\$ 1,690,000
Corridor: Westside Hwy SW					
RC-56	Westside Highway SW: From Crescent Dr SW to McIntyre Rd SW	Reconstruct roadway	Roadway	VRS Hotspot	\$ 553,000
Corridor: Misc.					
DR-8	SW 171st St & 93rd Ave SW (Gorsuch Creek)	Replace failing culvert	Drainage	Drainage	\$ 957,000
NM-0106	SW Bank Rd: From 97 Pl SW to Beall Rd SW	Construct asphalt shoulder (south side)	Roadside	Non Motorized	\$ 705,000
NM-0203	Vashon Hwy SW: From SW 177th St to 98th Pl SW	Construct sidewalk (east and south sides)	Roadside	Non Motorized	\$ 96,800
NM-15-9	SE Cemetery Rd/ Beall Rd SW: From 107th Ave SW to SW 184th St	Construct asphalt pathway	Roadside	Non Motorized	\$ 954,000
NM-5054	SW Bank Rd: From 107th Ave SW to Vashon Hwy SW	Provide nonmotorized facility	Roadside	Non Motorized	\$ 726,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Ravensdale (17)					
Corridor: 276th Ave SE					
RC-127	276th Ave SE: From SE 216th St to SE Summit Landsburg Rd	Reconstruct roadway 2.59 miles	Roadway	Reconstruction	\$ 5,150,000
Corridor: Landsburg Rd SE					
RC-128	Landsburg Rd SE: From SE Summit Landsburg Rd to SE Kent Kangley Rd	Reconstruct roadway 1.27 miles	Roadway	Reconstruction	\$ 2,250,000
Corridor: Retreat Kanaskat Rd					
OP-INT-92	SE Kent-Kangley Rd & Retreat Kanaskat Rd	Realign Intersection and install turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 1,440,000
RC-136	Retreat Kanaskat Rd: From SE Kent Kangley Rd to Cumberland Kanasket Rd SE	Reconstruct roadway 3.04 miles	Roadway	Reconstruction	\$ 4,950,000
Corridor: SE 216th St					
RC-130	SE 216th St: From 244th Ave SE to 276th Ave SE	Reconstruct roadway 2.0 miles	Roadway	Reconstruction	\$ 3,110,000
Corridor: SE Kent-Kangley Rd					
IPA-22	SE Kent-Kangley Rd & Landsburg Rd SE	Roundabout or traffic signalization w turn lanes	Traffic Control Devices	Intersection Priority Array	\$ 900,000
RC-132	SE Kent-Kangley Rd: From Kent city limits to Landsburg Rd SE	Reconstruct roadway 1.14 miles	Roadway	Reconstruction	\$ 2,730,000
RC-133	SE Kent Kangley Rd: From Landsburg Rd SE to Retreat Kanaskat Rd	Reconstruct roadway 1.18 miles	Roadway	Reconstruction	\$ 2,750,000
Corridor: SE Ravensdale Way					
NM-5051	Black Diamond-Ravensdale Rd SE: From State Route 169 to SE Kent-Kangley Rd	Provide nonmotorized facility	Roadside	Non Motorized	\$ 2,620,000
RC-135	SE Ravensdale Way: From SE Kent-Kangley Rd to 268th Ave SE	Reconstruct roadway 0.6 miles	Roadway	Reconstruction	\$ 930,000
Corridor: Misc.					
GR-11	SE 309th St: From Cumberland-Kanasket Rd SE to SE 310th St	Construct guardrail	Roadside	Guardrail	\$ 134,000
GR-15-25	SE 224th St: From 244th Ave SE to 276th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 1,050,000
GR-95	SE Courtney Rd: From Kanasket-Kangley Rd to end of route	Construct guardrail	Roadside	Guardrail	\$ 15,800
RC-15-3	SE Summit Landsburg Rd: From Kent city limits (244th Ave SE) to Landsburg Rd SE	Reconstruct roadway	Roadway	Reconstruction	\$ 3,910,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Redmond/Smammish (7)					
Corridor: 208th Ave NE					
OP-INT-113	208th Ave NE & NE Union Hill Rd	Construct southbound right turn lane	Traffic Control Devices	Intersection Priority Array	\$ 1,690,000
Corridor: 238th Ave					
SW-51	238th Ave NE & NE 63rd PL	Construct roundabout	Traffic Control Devices	Intersection Priority Array	\$ 1,460,000
Corridor: NE Union Hill Rd					
CP-15-1	NE Union Hill Rd: From 196th Ave NE to 208th Ave NE	Construct congestion relief measures	Roadway	Capacity-Major	\$ 11,300,000
DR-15-2	NE Union Hill Rd & 225th Ave NE	Replace failing culvert	Drainage	Drainage	\$ 1,510,000
ITS-20	NE Union Hill Rd: From 196th Ave NE to 238rd Ave NE	Cameras, speed warning system, vehicle detection	Traffic Control Devices	ITS	\$ 4,050,000
OP-RD-5	NE Union Hill Rd: From 208th Ave NE to 238th Ave NE	Construct congestion relief measures	Roadside	Capacity-Major	\$ 7,070,000
RC-116	NE Union Hill Rd: From 238th Ave NE to 258th Ave NE	Reconstruct roadway 1.5 miles	Roadway	Reconstruction	\$ 2,060,000
RC-44	NE Union Hill Rd: From 196th Ave NE to 206th Pl NE	Construct retaining wall to stabilize slope	Bridges and Structures	VRS Hotspot	\$ 187,000
RC-51	NE Union Hill Rd: From 229th Pl NE to 238th Ave NE	Construct retaining wall to stabilize slope	Bridges and Structures	VRS Hotspot	\$ 2,550,000
Corridor: Misc.					
BR-578A	Evans Creek Bridge: 196th Ave NE & State Route 202 at Evans Creek	Replace bridge	Bridges and Structures	Bridge	\$ 1,580,000
DR-7	NE 40th St & 26th Ave NE (Dry Creek)	Replace failing culvert	Drainage	Drainage	\$ 563,000
GR-15-27	NE 50th St: From 196th Ave NE to Sahalee Way NE	Construct guardrail	Roadside	Guardrail	\$ 435,000
RC-35	NE 50th St: From 214th Ave NE to State Route 202	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 83,300

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Skykomish (23)					
Corridor: NE Old Cascade Highway					
RC-57	NE Old Cascade Highway at Miller River	Permanent road end closure improvements	Roadway	Reconstruction	<Null>
Corridor: Misc.					
BR-509A	Baring Bridge: Index Creek Rd over the South Fork Skykomish River, west of Highway 2	Replace bridge	Bridges and Structures	Bridge	\$ 17,200,000
GR-15-12	NE Old Cascade Hwy: From State Route 2 to Skykomish city limits	Construct guardrail	Roadside	Guardrail	\$ 407,000
RC-55	NE Money Creek Rd & Money Creek	Construct retaining wall to prevent slides	Bridges and Structures	VRS Hotspot	\$ 831,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Snoqualmie (15)					
Corridor: Preston Fall City Rd SE					
DR-15-14	Preston Fall City Rd SE & SE 47th St	Replace undersized and failing culvert	Drainage	Drainage	\$ 844,000
ITS-14	Preston Fall City Rd SE: From I-90 to State Route 202	Cameras, road sensors, weather station	Traffic Control Devices	ITS	\$ 6,660,000
OP-INT-88	Preston Fall City Rd SE & SE 43rd St	Realign intersection	Traffic Control Devices	Intersection Priority Array	\$ 783,000
RC-15-4	Preston Fall City Road: From the 7600 block to 7800 block	Reconstruct roadway	Roadway	Reconstruction	\$ 3,440,000
Corridor: SE High Point Way					
IPA-27	SE 82nd St/ SE High Point Way & SE 82nd St	Construct a roundabout	Traffic Control Devices	Intersection Priority Array	\$ 3,500,000
Corridor: Misc.					
BR-1086B	Coal Creek Bridge: 378th Ave SE at Coal Creek	Replace bridge	Bridges and Structures	Bridge	\$ 1,470,000
BR-1239A	Upper Preston Bridge: Upper Preston Rd SE at Echo Lake Creek, north of SE 110th St	Replace bridge	Bridges and Structures	Bridge	\$ 4,060,000
BR-249B	C.W. Neal Road Bridge: Neal Rd SE, about 1.5 mile south of State Route 203	Replace bridge	Bridges and Structures	Bridge	\$ 1,470,000
BR-249C	C.W. Neal Road Bridge: Neal Rd SE, about 0.3 mile south of State Route 203	Replace bridge	Bridges and Structures	Bridge	\$ 1,580,000
BR-61B	Fish Hatcher Bridge: SE Fish Hatchery Rd, about 0.8 mile southwest of State Route 202	Replace bridge	Bridges and Structures	Bridge	\$ 1,580,000
BR-99L	Kimball Creek Bridge: SE 76th St at Kimball Creek, 0.5 mile west of State Route 202	Replace bridge	Bridges and Structures	Bridge	\$ 2,940,000
DR-15-15	SE 55th St & W Lake Alice Rd SE	Replace culvert	Drainage	Drainage	\$ 1,690,000
GR-121	Upper Preston Rd SE: From 312th Ave SE to under I-90 overpass	Construct guardrail	Roadside	Guardrail	\$ 22,500
GR-15-11	SE 48th St: From 317th Pl SE to 328th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 382,000
GR-15-20	356th Dr SE/ 364th Way SE: From State Route 203 to end of road (SE 27th St)	Construct guardrail	Roadside	Guardrail	\$ 1,050,000
GR-28	SE David Powell Rd: From Preston-Fall City Rd SE to end of route	Construct guardrail	Roadside	Guardrail	\$ 222,000
GR-98	Fish Hatchery Rd/ 372nd Ave SE: From State Route 202 to State Route 202	Construct guardrail	Roadside	Guardrail	\$ 1,150,000
RC-15-5	Upper Preston Rd: From SE 97th St to SE 97th St	Stabilize downhill side and improve drainage	Roadside	VRS Hotspot	\$ 2,680,000
RC-17	SE 24th St: From 309th Ave SE to W Snoqualmie River Rd SE	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 385,000
RC-40	Neal Rd SE: From State Route 203 to State Route 203	Armor shoulders to reduce road washouts	Roadside	VRS Hotspot	\$ 1,330,000
RC-7	Neal Rd SE: From State Route 203 to State Route 203	Reconstruct road at re-occurring sinkhole	Roadway	Reconstruction	\$ 459,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: South Enumclaw (12)					
Corridor: 244th Ave SE					
BR-3068	Newaukum Creek Bridge: 244th Ave SE at Newaukum Creek, 0.2 mile north of SE 436th St	Replace bridge	Bridges and Structures	Bridge	\$ 2,430,000
Corridor: Misc.					
BR-3055A	Boise X Connection Bridge: SE Mud Mountain Dam Rd at Boise Creek, south east of State Route 410	Replace bridge	Bridges and Structures	Bridge	\$ 2,020,000
GR-104	196th Ave SE: From SE 400th St to SE 456th St	Construct guardrail	Roadside	Guardrail	\$ 18,000
GR-15-31	SE 424th St: From 196th Ave SE to State Route 169	Construct guardrail	Roadside	Guardrail	\$ 2,370,000
GR-92	228th Ave SE: From SE 400th St to SE 452nd St	Construct Guardrail	Roadside	Guardrail	\$ 665,000
GR-96	SE 456th Way: From 196th Ave SE to 228th Ave SE	Construct guardrail	Roadside	Guardrail	\$ 434,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: South Vashon (2)					
Corridor: Dockton Rd SW					
GR-15-40	Dockton Rd SW: From SW Ellisport Rd to SW 222nd St	Construct guardrail along seawall	Roadside	Guardrail	\$ 528,000
RC-10	Dockton Rd SW: From SW Ellisport Road to Portage Way SW	Replace failing seawall	Bridges and Structures	VRS Hotspot	\$ 37,700,000
Corridor: SW Quartermaster Dr					
GR-15-42	SW Quartermaster Dr: From Monument Rd SW to Dockton Rd SW	Construct guardrail along seawall	Roadside	Guardrail	\$ 343,000
Corridor: Vashon Hwy SW					
GR-15-41	Vashon Hwy SW Seawall: From SW 240th Pl to 115th Ave SW	Construct guardrail along seawall	Roadside	Guardrail	\$ 417,000
NM-9975	SW Tahlequah Rd near Tahlequah Ferry Dock	Construct asphalt shoulder (south side)	Roadside	Non Motorized	\$ 222,000
RC-15	Vashon Hwy SW: From 115th Ave SW to SW 240th Pl	Replace seawall	Roadway	VRS Hotspot	\$ 18,800,000
Corridor: Misc.					
DR-15-13	Chautauqua Beach Rd SW & Ellisport Creek	Replace undersized and failing culvert	Drainage	Drainage	\$ 1,130,000
RC-54	SW Govenors Lane Ln: From 99th Ave SW to 96th Ave SW	Replace failing seawall	Bridges and Structures	VRS Hotspot	\$ 3,360,000
RC-59	Kingsbury Rd SW: From SW 234th St to 80th Ave SW	Roadway reconstruction	Roadway	VRS Hotspot	\$ 692,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Tiger Mountain/Hobart (16)					
Corridor: 276th Ave SE					
DR-15-18	276th Ave SE at Carey Creek	Replace failing and undersized culvert	Drainage	Drainage	\$ 3,840,000
RC-125	276th Ave SE: From Highway 18 to SE 200th St	Reconstruct roadway 1.18 miles	Roadway	Reconstruction	\$ 1,630,000
RC-126	276th Ave SE: From SE 200th St to SE 216th St	Reconstruct roadway 1.0 miles	Roadway	Reconstruction	\$ 1,830,000
Corridor: Misc.					
BR-909B	Clough Creek Bridge: 415th Way SE & SE 141st St	Replace bridge	Bridges and Structures	Bridge	\$ 1,580,000
GR-15-16	SE 131st St: From 409th Ave SE to 415th Way SE	Construct guardrail	Roadside	Guardrail	\$ 77,700
GR-57	SE 208th St: From 276th Ave SE to end of route	Construct Guardrail	Roadside	Guardrail	\$ 461,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: White Center/Skyway (3)					
Corridor: 68th Ave S					
RC-41	68th Ave S: From State Route 900 to Renton city limits	Construct retaining walls for slope stabilization	Bridges and Structures	VRS Hotspot	\$ 2,620,000
Corridor: 80th Ave S					
NM-4012	80th Ave S: From S 114th St to S 118th St	Improve and widen shoulder (West Side)	Roadside	Non Motorized	\$ 37,100
Corridor: Myers Way S					
ITS-26	1st Ave S, SW 100th St to SW 112th St	Cameras, vehicle detection, sync signals	Traffic Control Devices	ITS	\$ 1,150,000
Corridor: Rainier Ave S					
ITS-33	Rainier Ave S: From Seattle city limits to Renton city limits	Cameras, vehicle detection, sync signals	Traffic Control Devices	ITS	\$ 2,760,000
Corridor: Renton Ave S					
IPA-35	Renton Ave S: From 74th Ave S to 75th Ave S	Construct sidewalk along south side	Roadside	Non Motorized	\$ 1,010,000
IPA-36	Renton Ave S: From 76th Ave S to 78th Ave S	Construct sidewalk along south side	Roadside	Non Motorized	\$ 1,010,000
ITS-12	Renton Ave S: From Seattle city limits (S 112th St) to Renton city limits (S 130th St)	Cameras, vehicle detection, sync signals, fiber	Traffic Control Devices	ITS	\$ 5,740,000
Corridor: S 132nd St					
GR-15-6	S 132nd St: From State Route 900 to S Langston Rd	Construct guardrail	Roadside	Guardrail	\$ 509,000
NM-15-2	S 132nd St: From S Langston Rd to S 133rd St	Construct sidewalk	Roadside	Non Motorized	\$ 690,540
NM-15-4	S 133rd St: From State Route 900 to S 132nd St	Complete sidewalk segments	Roadside	Non Motorized	\$ 949,280
Corridor: SW 112th St					
NM-4077	SW 112th St: From 16th Ave SW to 10th Ave SW	Improve walkway	Roadside	Non Motorized	\$ 258,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Corridor: Misc.					
DR-15-4	S 96th St: From 4th Ave S to 10th Ave S	Construct drainage improvements (slip line)	Drainage	Drainage	\$ 1,440,000
DR-15-5	S 96th St: From 4th Ave S to 10th Ave S	Construct drainage improvements (slip line)	Drainage	Drainage	\$ 1,910,000
DR-15-6	S 96th St: From 4th Ave S to 10th Ave S	Construct drainage improvements (slip line)	Drainage	Drainage	\$ 2,920,000
DR-6	60th Ave S/S Langston Rd: From S 129th St to S 124th St	Replace undersized culvert	Drainage	Drainage	\$ 563,000
GR-15-2	S 123rd St: From S 124th St to S 125th St	Construct guardrail	Roadside	Guardrail	\$ 120,000
GR-15-7	21st Ave SW: From SW 100th St to SW 106th St	Construct guardrail	Roadside	Guardrail	\$ 197,000
GR-15-9	W Marginal Pl S: From Tukwila city limits to S 95th St	Construct guardrail	Roadside	Guardrail	\$ 529,000
IPA-37	S 114th St: From Cornell Ave S to 80th Ave S	Construct sidewalk	Roadside	Non Motorized	\$ 1,350,000
IPA-38	S 126th St: From 76th Ave S to 78th Ave S	Construct sidewalk along south side	Roadside	Non Motorized	\$ 563,000
NM-0004	76th Ave S: S 114th St to S 116th St	Construct asphalt walkway	Roadside	Non Motorized	\$ 88,900
NM-0302	1st Ave SW: From SW 108th St to SW 112th St	Construct sidewalk (west side)	Roadside	Non Motorized	\$ 96,800
NM-15-1	S Langston Rd: From 64th Ave S to S 132nd St	Construct sidewalk	Roadside	Non Motorized	\$ 1,156,000
NM-15-10	14th Ave SW: SW 110th St to SW 114th St	Improve east sidewalk. Enclose ditches	Roadside	Non Motorized	\$ 37,100
NM-15-3	S 120th St: From Beacon Ave S to 68th Ave S	Construct sidewalk	Roadside	Non Motorized	\$ 1,632,000
NM-15-5	84th Ave S: From Rainier Ave S to S 124th St	Construct sidewalk	Roadside	Non Motorized	\$ 3,060,000
NM-15-6	S 120th Pl: From 68th Ave S to Skyway Park	Construct sidewalk	Roadside	Non Motorized	\$ 748,000
NM-15-7	S 123rd St: From S 125th St to S 124th St	Construct sidewalk	Roadside	Non Motorized	\$ 1,632,000
NM-15-8	81st Pl S/S 124th St: From SE side of middle school to 84th Ave S	Construct sidewalk	Roadside	Non Motorized	\$ 1,088,000
NM-5017	SW 102nd St: From 8th Ave SW to 17th AVE SW	Provide nonmotorized facility	Roadside	Non Motorized	\$ 169,000
NM-5018	SW 104th St: From 15th Ave SW to 17th Ave SW	Provide nonmotorized facility	Roadside	Non Motorized	\$ 70,900
NM-5020	8th Ave SW: From SW 108th St to SW 100th St	Provide non-motorized facility	Roadside	Non Motorized	\$ 896,580
NM-5021	76th Ave S: From S 124th St to S 128th St	Provide nonmotorized facility	Roadside	Non Motorized	\$ 104,000
NM-9920	28th Ave SW: From SW Roxbury St to SW 102nd St	Construct asphalt shoulder (east side)	Roadside	Non Motorized	\$ 215,000
NM-9922	SW 112th St: From 16th Ave SW to 26th Ave SW	Construct asphalt shoulder (south side)	Roadside	Non Motorized	\$ 563,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
NM-9930	SW 112th St: From 1st Ave S to 4th Ave SW	Construct sidewalk (north side)	Roadside	Non Motorized	\$ 163,000
NM-9936	75th Ave S / S 122nd St: From Renton Ave S to 80th Ave S	Construct sidewalk (south side)	Roadside	Non Motorized	\$ 401,000
NM-9937	S 120th St: From 76th Ave S to 80th Ave S	Construct sidewalk (south side)	Roadside	Non Motorized	\$ 246,000
NM-9938	78th Ave S: From S 120th St to S 124th St	Construct sidewalk (east side)	Roadside	Non Motorized	\$ 246,000
NM-9939	76th Ave S: From S 120th St to S 124th St	Construct sidewalk (east side)	Roadside	Non Motorized	\$ 252,000
OP-INT-79	87th Ave S: From Stevens Ave NW/Taylor Pl NW to S 123rd Pl	Realign intersection	Traffic Control Devices	Intersection Priority Array	\$ 844,000
OP-RD-12	8th Ave S: From Seattle city limits to Burien city limits (S 112th St)	Construct congestion relief measures	Roadway	Capacity-Major	\$ 3,810,000
OP-RD-14	6th Ave S: From Myers Way S to 5th Ave S	Construct congestion relief measures	Roadway	Capacity-Major	\$ 2,800,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Map Area: Woodinville (6)					
Corridor: 197th Ave NE					
GR-15-1	204th Ave NE: From NE Woodinville Duvall Rd to Snohomish County line	Construct guardrail	Roadside	Guardrail	\$ 1,110,000
NM-5001	204th Ave NE/NE 198th St/197th Ave: From NE Woodinville Duvall Rd to Snohomish County line	Provide nonmotorized facility	Roadside	Non Motorized	\$ 691,000
Corridor: Avondale Rd NE					
CP-15-5	Avondale Rd NE: From NE 133rd St to NE Woodinville Duvall Rd	Construct congestion relief measures	Roadway	Capacity-Major	\$ 22,300,000
OP-INT-99	Avondale Road NE & NE 165th St	Turn lanes, replace traffic signal	Traffic Control Devices	Intersection Priority Array	\$ 2,480,000
RC-151	Avondale Rd NE: From NE 133rd St to NE Woodinville Duvall Road	Reconstruct roadway	Roadway	Reconstruction	\$ 4,990,000
Corridor: NE 124th St					
IPA-23	162nd Pl NE & NE 124th St	Left-turn lanes on NE 124th St and traffic signal	Traffic Control Devices	Intersection Priority Array	\$ 2,270,000
Corridor: NE 128th St					
ITS-16	NE 124th Way/NE 128th St: From Remond city limits to Avondale Road NE	Cameras, vehicle and flood detection	Traffic Control Devices	ITS	\$ 3,290,000
OP-RD-52	NE 128th St/Avondale Rd NE/NE 132nd St: 181st Ave NE to NE 133rd St	Construct congestion relief measures	Traffic Control Devices	Capacity-Major	\$ 35,400,000
Corridor: NE 132nd St					
BR-240A	Cottage Lake Creek Bridge: NE 132nd St at Cottage Lake Creek, east of Avondale Rd NE	Replace bridge	Bridges and Structures	Bridge	\$ 1,910,000
Corridor: NE 133rd St					
333A	Bear Creek Bridge: NE 133rd St at Bear Creek, east of Bear Creek Rd NE	Replace bridge	Bridges and Structures	Bridge	\$ 2,190,000
Corridor: NE Novelty Hill Rd					
CP-15-8	NE Novelty Hill Rd: From 243rd Ave NE to W Snoqualmie Valley Rd NE	Construct congestion relief measures	Roadway	Capacity-Major	\$ 81,800,000
ITS-35	NE Novelty Hill Rd: From 208th Ave NE to West Snoqualmie Valley Road	Upgrade, interconnect and synchronize signals	Traffic Control Devices	ITS	\$ 506,000
CP-8	Novelty Hill Rd: From 197th Pl NE to 234th Pl NE	Construct congestion relief measures	Traffic Control Devices	Capacity-Major	\$ 38,400,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Corridor: NE Woodinville Duvall Rd					
BR-1136B	Woodinville-Duvall Road Bridge: NE Woodinville Duvall Rd 0.3 mile west of State Route 203	Replace bridge	Bridges and Structures	Bridge	\$ 54,400,000
BR-1136C	Woodinville-Duvall Road Bridge: NE Woodinville Duvall Rd 0.6 mile west of State Route 203	Replace bridge	Bridges and Structures	Bridge	\$ 6,940,000
BR-1136D	Woodinville-Duvall Road Bridge: NE Woodinville Duvall Rd 0.8 mile west of State Route 203	Replace bridge	Bridges and Structures	Bridge	\$ 5,870,000
BR-1136E	Woodinville-Duvall Road Bridge: NE Woodinville Duvall Rd 0.9 mile west of State Route 203	Replace bridge	Bridges and Structures	Bridge	\$ 4,810,000
CP-12	Woodinville-Duvall Rd: 171st Ave NE to Avondale Rd NE	Construct congestion relief measures	Roadway	Capacity-Major	\$ 11,900,000
CP-15-7	NE Woodinville Duvall Rd & 194th Ave NE	Construct congestion relief measures	Roadway	Capacity-Major	\$ 1,960,000
CP-16	NE Woodinville Duvall Rd: From Avondale Rd NE to 194th Ave NE	Construct congestion relief measures	Roadway	Capacity-Major	\$ 9,220,000
IPA-40	NE Woodinville-Duvall Rd & West Snoqualmie Valley Rd NE	Intersection and drainage improvements	Traffic Control Devices	Intersection Priority Array	\$ 3,440,000
NM-5002	NE Woodinville Duvall Rd: From Avondale Rd NE to Duvall city limits	Provide nonmotorized facility	Roadside	Non Motorized	\$ 18,000,000
RC-43	NE Woodinville Duvall Rd: From Old Woodinville-Duvall Rd to W Snoqualmie Valley Rd NE	Construct retaining wall to stabilize slope	Bridges and Structures	VRS Hotspot	\$ 581,000
ITS-13	NE Woodinville Duvall Rd: From 212th Ave NE to Duvall city limits	Cameras, data stations, message signs	Traffic Control Devices	ITS	\$ 4,200,000
Corridor: West Snoqualmie Val Rd NE					
CP-15-3	W Snoqualmie Valley Rd: From NE 124th St to NE Novelty Hill Rd	Construct congestion relief measures	Roadway	Capacity-Major	\$ 6,830,000
ITS-18	W Snoqualmie Valley Rd NE: From NE Woodinville Duvall Road to Ames Lake Carnation Rd NE	Vehicle detection, flood detection, cameras	Traffic Control Devices	ITS	\$ 742,000
OP-INT-122	NE 124th St & West Snoqualmie Valley Rd NE	Construct turn pockets and replace signal	Traffic Control Devices	Intersection Priority Array	\$ 2,700,000
RC-113	West Snoqualmie Valley Rd NE: From NE 124th St and NE Novelty Hill Rd	Reconstruct roadway 0.28 mile	Roadway	Reconstruction	\$ 455,000
RC-150	West Snoqualmie Valley Rd NE: From Snohomish County line to NE Woodinville Duvall Rd	Construct retaining wall to prevent slides	Bridges and Structures	VRS Hotspot	\$ 3,640,000
RC-39	West Snoqualmie Valley Rd NE: From NE 124th St to Ames Lake Carnation Rd NE	Construct retaining wall to prevent slides	Bridges and Structures	VRS Hotspot	\$ 3,900,000

Project Number	Project Location	Project Scope	Product Family	Category	Est. Cost
Corridor: Misc.					
BR-480A	Bear Creek Bridge: NE 116th St at Bear Creek, east of Avondale Rd NE	Replace bridge	Bridges and Structures	Bridge	\$ 1,580,000
BR-5011	Walter Shults Bridge: NE 106th St at Lower Bear Creek, east of Avondale Rd NE	Replace bridge	Bridges and Structures	Bridge	\$ 1,740,000
DR-15-1	185th Ave NE, north of NE 179th St	Elevate roadway 1.5' and replace culvert	Drainage	Drainage	\$ 455,000
DR-15-7	NE 124th St & 162nd Pl NE	Replace failing culvert	Drainage	Drainage	\$ 494,000
DR-15-8	NE 124th St: From 570 Ft W of 164th Ave NE	Replace failing culvert	Drainage	Drainage	\$ 648,000
GR-15-13	148th Ave NE: 140th Pl NE to NE 172nd St	Construct guardrail	Roadside	Guardrail	\$ 533,000
GR-15-17	Mink Rd NE: From Bear Creek Rd NE to NE Woodinville Duvall Rd	Construct guardrail	Roadside	Guardrail	\$ 901,000
GR-15-21	NE Redmond Rd: From NE Novelty Hill Rd and 204th Ave NE	Construct guardrail	Roadside	Guardrail	\$ 717,000
GR-15-22	222nd Way NE: From NE Woodinville Duvall Rd and NE 194th St	Construct guardrail	Roadside	Guardrail	\$ 358,000
GR-15-26	232nd Ave NE: From NE 133rd St to Old Woodinville Duvall Rd	Construct guardrail	Roadside	Guardrail	\$ 1,460,000
GR-15-4	236th Ave NE: From NE Woodinville Duvall Rd to NE 184th St	Construct guardrail	Roadside	Guardrail	\$ 214,000
NM-5026	172nd Ave NE: From NE 134th Pl to NE 125th St	Construct neighborhood pathway	Roadside	Non Motorized	\$ 503,000
NM-5027	171st/174th Ave NE: From NE Woodinville Duvall Rd to NE 172nd Pl	Provide nonmotorized facility	Roadside	Non Motorized	\$ 581,000
OP-INT-81	155th Ave NE & NE 146th Pl	Reconstruct intersection to improve sight distance	Traffic Control Devices	Intersection Priority Array	\$ 902,000
OP-RD-18	NE 172 Pl / NE 172nd Pl NE: From 164th Ave NE to 174th Ave NE	Reconstruct roadway	Roadway	Reconstruction	\$ 3,120,000
OP-RD-45	232nd Ave NE: From NE 142nd Pl to Old Woodinville Duvall Rd	Reconstruct roadway	Roadway	Reconstruction	\$ 4,480,000
OP-RD-7	NE 165th St: From 179th Pl NE to 183rd Pl NE	Reconstruct roadway	Roadway	Reconstruction	\$ 6,380,000
OP-RD-9	NE Old Woodinville-Duvall Rd: From NE Woodinville-Duvall Rd to NE Woodinville-Duvall Rd	Reconstruct roadway	Roadway	Reconstruction	\$ 5,470,000
RC-48	NE 146th Pl: From Woodinville city limits to 155th Ave NE	Construct retaining wall to stabilize slope	Bridges and Structures	VRS Hotspot	\$ 138,000

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BR-122N	13	21
BR-1239A	21	15
BR-1384A	9	9
BR-1741A	10	9
BR-2133A	1	14
BR-240A	27	6
BR-249B	21	15
BR-249C	21	15
BR-257Z	1	14
BR-3015	7	5
BR-3020	15	11
BR-3022	15	11
BR-3030	15	11
BR-3035A	4	18
BR-3055A	22	12
BR-3068	22	12
BR-30860X	2	10
BR-3108	12	4

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BR-3109A	10	9
BR-3109B	10	9
BR-3126	12	4
BR-3202	10	9
BR-333A	27	6
BR-364A	16	20
BR-480A	29	6
BR-493C	10	9
BR-5011	29	6
BR-5032	5	13
BR-5034A	5	13
BR-509A	20	23
BR-578A	19	7
BR-61B	21	15
BR-83B	10	9
BR-83D	9	9
BR-909B	24	16
BR-916A	1	14
BR-99L	21	15
CP-12	28	6

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CP-15-1	19	7
CP-15-2	9	9
CP-15-3	28	6
CP-15-4	10	9
CP-15-5	27	6
CP-15-6	12	4
CP-15-7	28	6
CP-15-8	27	6
CP-16	28	6
CP-5	12	4
CP-8	27	6
DR-10	2	10
DR-15-1	29	6
DR-15-10	12	4
DR-15-11	4	18
DR-15-12	5	13
DR-15-13	23	2
DR-15-14	21	15
DR-15-15	21	15
DR-15-16	15	11

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DR-15-18	24	16
DR-15-2	19	7
DR-15-3	10	9
DR-15-4	26	3
DR-15-5	26	3
DR-15-6	26	3
DR-15-7	29	6
DR-15-8	29	6
DR-15-9	12	4
DR-2	12	4
DR-3	6	19
DR-4	5	13
DR-5	5	13
DR-6	26	3
DR-7	19	7
DR-8	17	1
DR-9	3	10
GR-103	6	19
GR-104	22	12
GR-11	18	17
GR-115	1	14

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GR-15-1	27	6
GR-15-10	1	14
GR-15-11	21	15
GR-15-12	20	23
GR-15-13	29	6
GR-15-14	10	9
GR-15-15	6	19
GR-15-16	24	16
GR-15-17	29	6
GR-15-18	1	14
GR-15-19	10	9
GR-15-2	26	3
GR-15-20	21	15
GR-15-21	29	6
GR-15-22	29	6
GR-15-23	5	13
GR-15-24	5	13
GR-15-25	18	17
GR-15-26	29	6
GR-15-27	19	7
GR-15-28	15	11
GR-15-29	12	4

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GR-15-30	1	14
GR-15-31	22	12
GR-15-32	4	18
GR-15-33	4	18
GR-15-34	14	8
GR-15-35	11	9
GR-15-36	11	9
GR-15-37	1	14
GR-15-38	3	10
GR-15-39	12	4
GR-15-4	29	6
GR-15-40	23	2
GR-15-41	23	2
GR-15-42	23	2
GR-15-5	9	9
GR-15-6	25	3
GR-15-7	26	3
GR-15-8	11	9
GR-15-9	26	3
GR-28	21	15
GR-57	24	16
GR-78	8	22

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GR-86	6	19
GR-88	3	10
GR-92	22	12
GR-94	5	13
GR-95	18	17
GR-96	22	12
GR-98	21	15
IPA-1	10	9
IPA-12	15	11
IPA-22	18	17
IPA-23	27	6
IPA-25	7	5
IPA-26	2	10
IPA-27	21	15
IPA-3	12	4
IPA-33	3	10
IPA-35	25	3
IPA-36	25	3
IPA-37	26	3
IPA-38	26	3
IPA-40	28	6
ITS-11	1	14

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ITS-13	28	6
ITS-14	21	15
ITS-15	9	9
ITS-16	27	6
ITS-18	28	6
ITS-19	9	9
ITS-20	19	7
ITS-23	9	9
ITS-24	10	9
ITS-25	1	14
ITS-26	25	3
ITS-27	15	11
ITS-28	9	9
ITS-29	10	9
ITS-33	25	3
ITS-34	9	9
ITS-35	27	6
ITS-8	7	5

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NM-0106	17	1
NM-0202	3	10
NM-0203	17	1
NM-0302	26	3
NM-15-1	26	3
NM-15-10	26	3
NM-15-2	25	3
NM-15-3	26	3
NM-15-4	25	3
NM-15-5	26	3
NM-15-6	26	3
NM-15-7	26	3
NM-15-8	26	3
NM-15-9	17	1
NM-4012	25	3
NM-4033	3	10
NM-4041	2	10
NM-4042	12	4
NM-4066	7	5
NM-4067	7	5

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NM-4077	25	3
NM-5001	27	6
NM-5002	28	6
NM-5007	4	18
NM-5008	6	19
NM-5010	4	18
NM-5012	15	11
NM-5014	7	5
NM-5015	12	4
NM-5017	26	3
NM-5018	26	3
NM-5020	26	3
NM-5021	26	3
NM-5026	29	6
NM-5027	29	6
NM-5034	3	10
NM-5038	11	9
NM-5049	2	10
NM-5050	3	10
NM-5051	18	17
NM-5054	17	1
NM-5068	2	10

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Project Number	Page Number	Map Area Number
NM-5069	2	10
NM-9920	26	3
NM-9922	26	3
NM-9930	26	3
NM-9936	26	3
NM-9937	26	3
NM-9938	26	3
NM-9939	26	3
NM-9970	12	4
NM-9971	12	4
NM-9975	23	2
NM-9980	3	10
OP-INT-100	7	5
OP-INT-106	10	9
OP-INT-113	19	7
OP-INT-120	12	4
OP-INT-122	28	6
OP-INT-124	9	9
OP-INT-72	4	18
OP-INT-79	26	3
OP-INT-81	29	6
OP-INT-88	21	15

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OP-INT-95	2	10
OP-INT-97	15	11
OP-INT-99	27	6
OP-RD-12	26	3
OP-RD-14	26	3
OP-RD-18	29	6
OP-RD-21	9	9
OP-RD-22	10	9
OP-RD-24	14	8
OP-RD-25	9	9
OP-RD-26	10	9
OP-RD-37	1	14
OP-RD-39	8	22
OP-RD-4	1	14
OP-RD-41	2	10
OP-RD-44	15	11
OP-RD-45	29	6
OP-RD-48	7	5
OP-RD-5	19	7
OP-RD-52	27	6
OP-RD-54	8	22

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OP-RD-9	29	6
RC-10	23	2
RC-113	28	6
RC-116	19	7
RC-118	9	9
RC-119	9	9
RC-120	9	9
RC-121	9	9
RC-125	24	16
RC-126	24	16
RC-127	18	17
RC-128	18	17
RC-129	2	10
RC-130	18	17
RC-132	18	17
RC-133	18	17
RC-135	18	17
RC-136	18	17
RC-137	7	5
RC-138	7	5
RC-139	7	5

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RC-142	15	11
RC-15	23	2
RC-150	28	6
RC-151	27	6
RC-15-1	1	14
RC-15-3	18	17
RC-15-4	21	15
RC-15-5	21	15
RC-17	21	15
RC-18	1	14
RC-19	16	20
RC-24	12	4
RC-3	10	9
RC-32	1	14
RC-34	1	14
RC-35	19	7
RC-36	1	14
RC-38	1	14
RC-39	28	6
RC-40	21	15
RC-41	25	3
RC-42	7	5

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Project Number	Page Number	Map Area Number
RC-43	28	6
RC-44	19	7
RC-48	29	6
RC-50	9	9
RC-51	19	7
RC-54	23	2
RC-55	20	23
RC-56	17	1
RC-57	20	23
RC-58	17	1
RC-59	23	2
RC-6	2	10
RC-7	21	15
RC-8	13	21
SW-13	2	10
SW-20	12	4
SW-21	7	5
SW-51	19	7
SW-56	3	10

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Project Number	Page Number	Map Area Number
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SW-81	9	9
SW-96	17	1

2016
Transportation
Needs Report

South Vashon

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



0 2,000 4,000
Feet

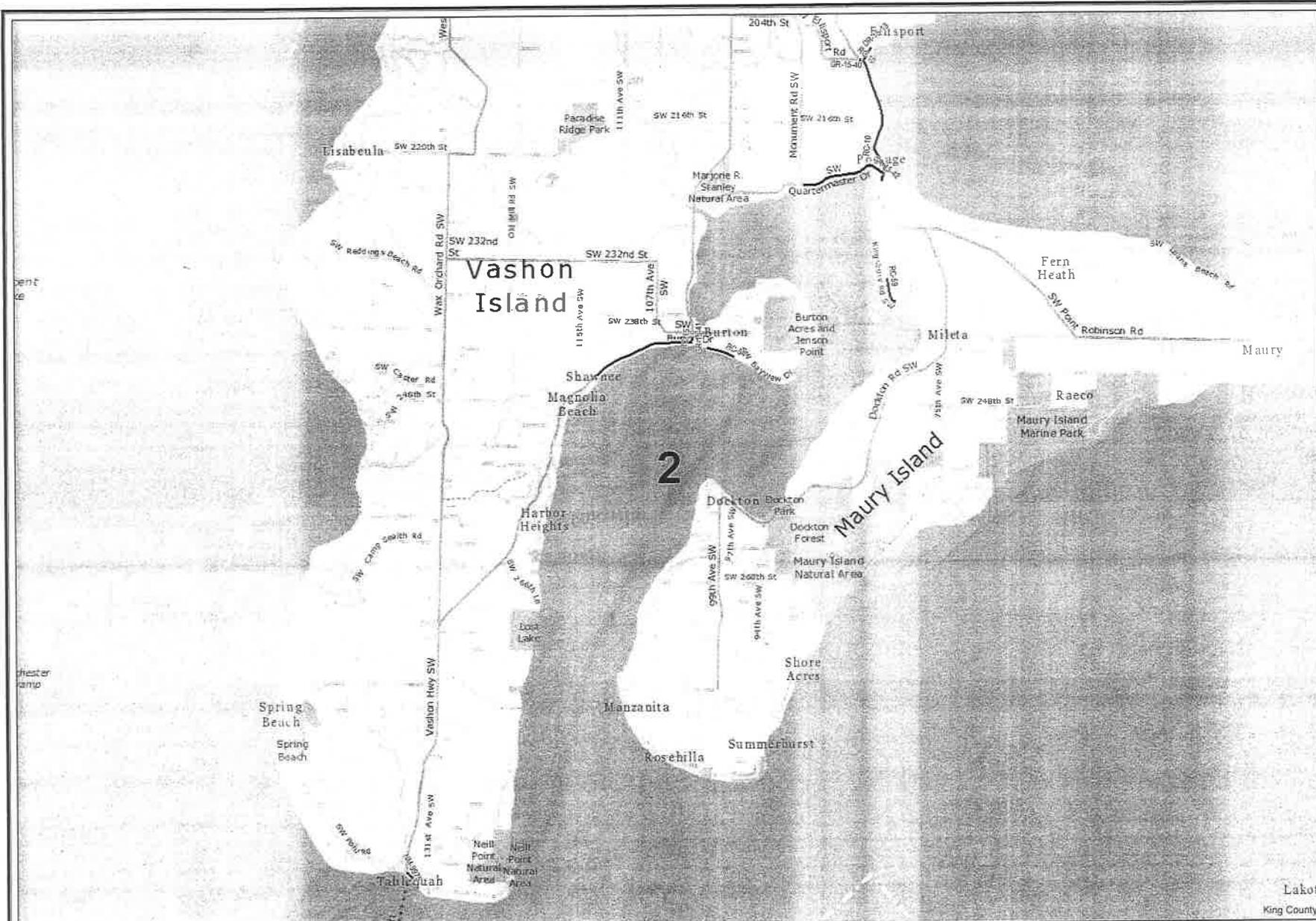
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Lakot
King County

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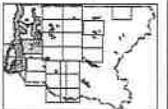
White Center/Skyway

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



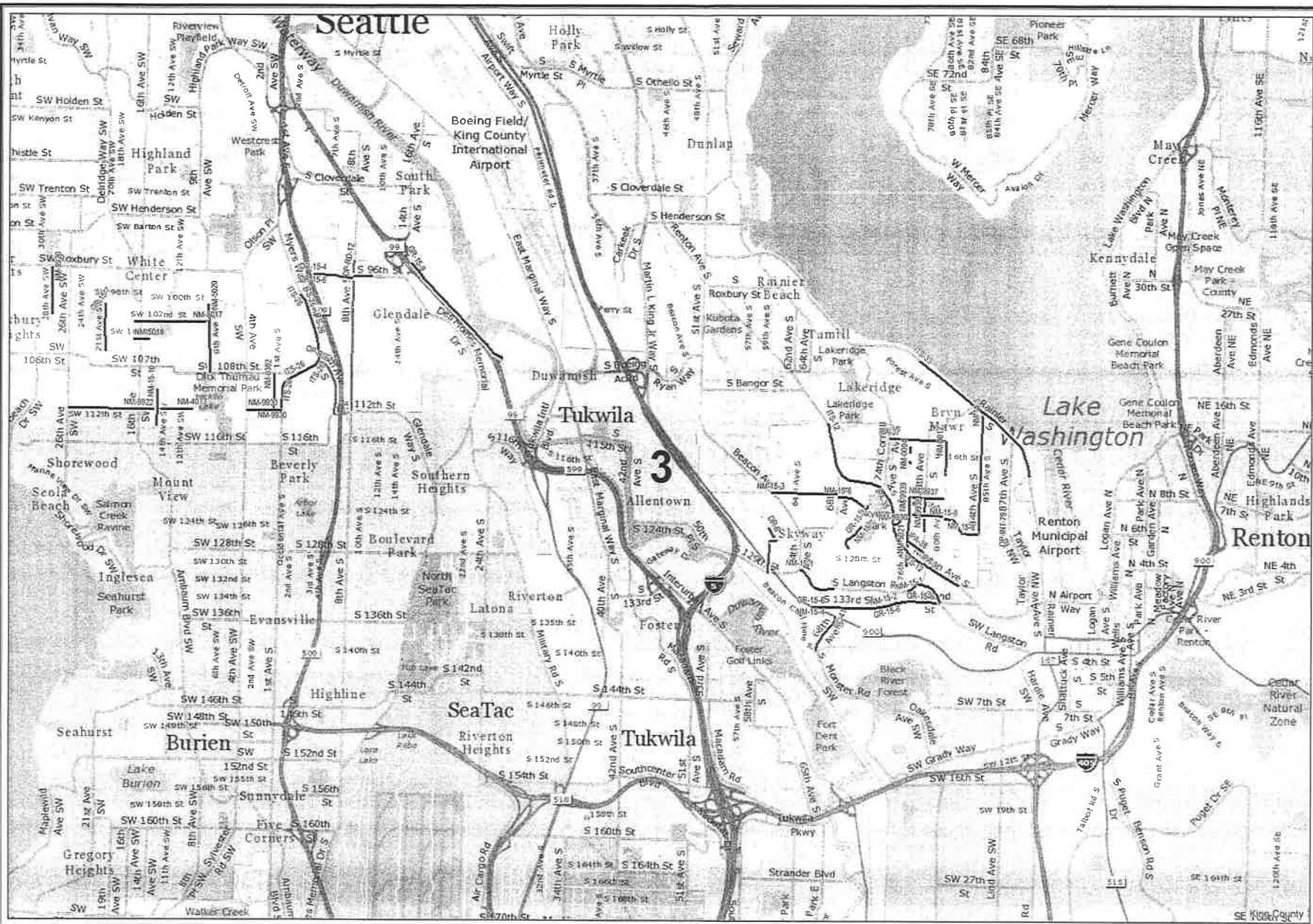
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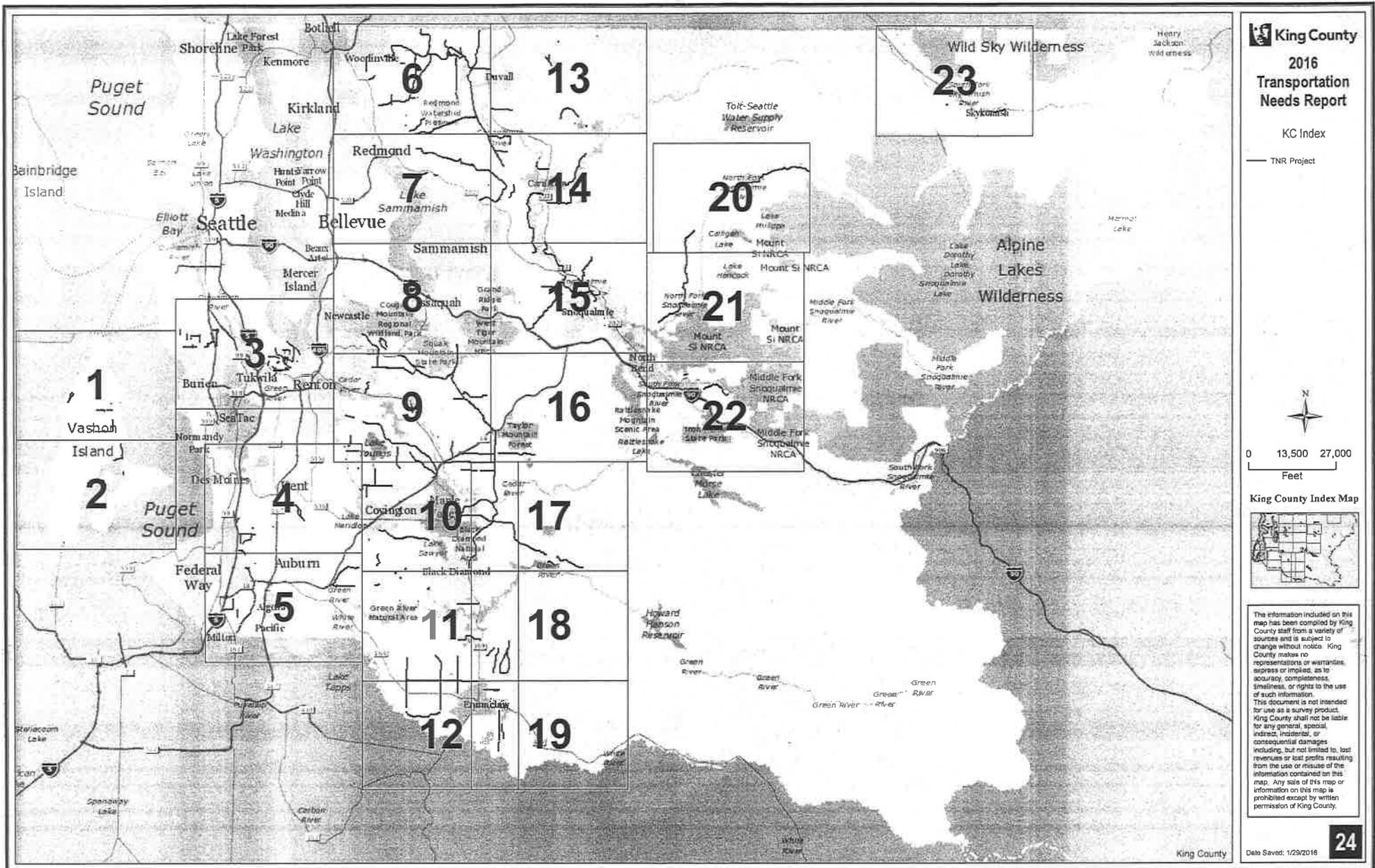
King County Index Map

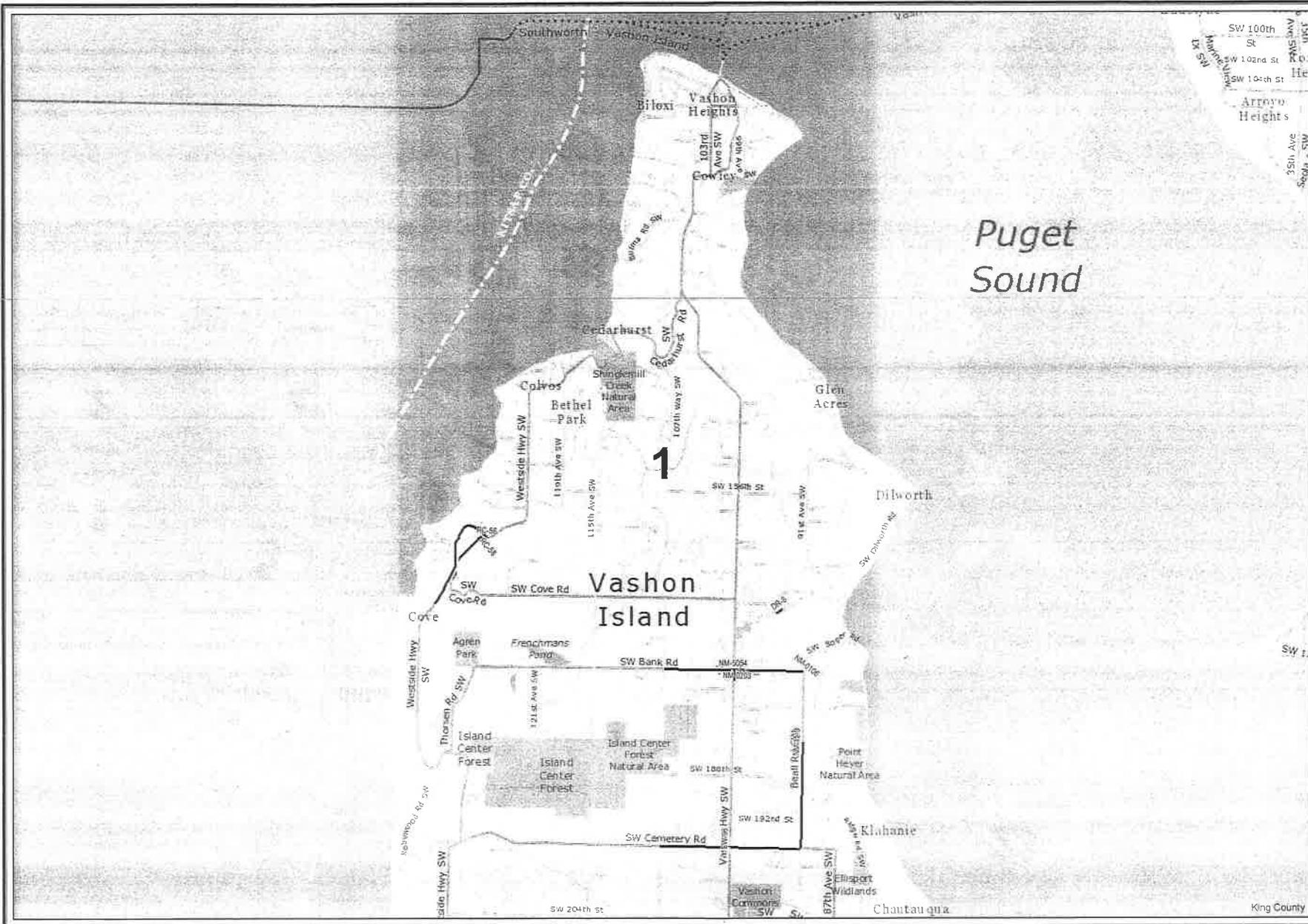


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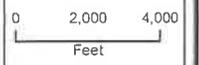




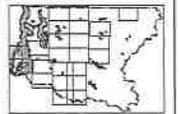
**2016
Transportation
Needs Report**

North Vashon

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



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2016
Transportation
Needs Report

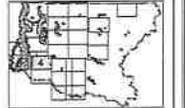
Kent/Des Moines

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



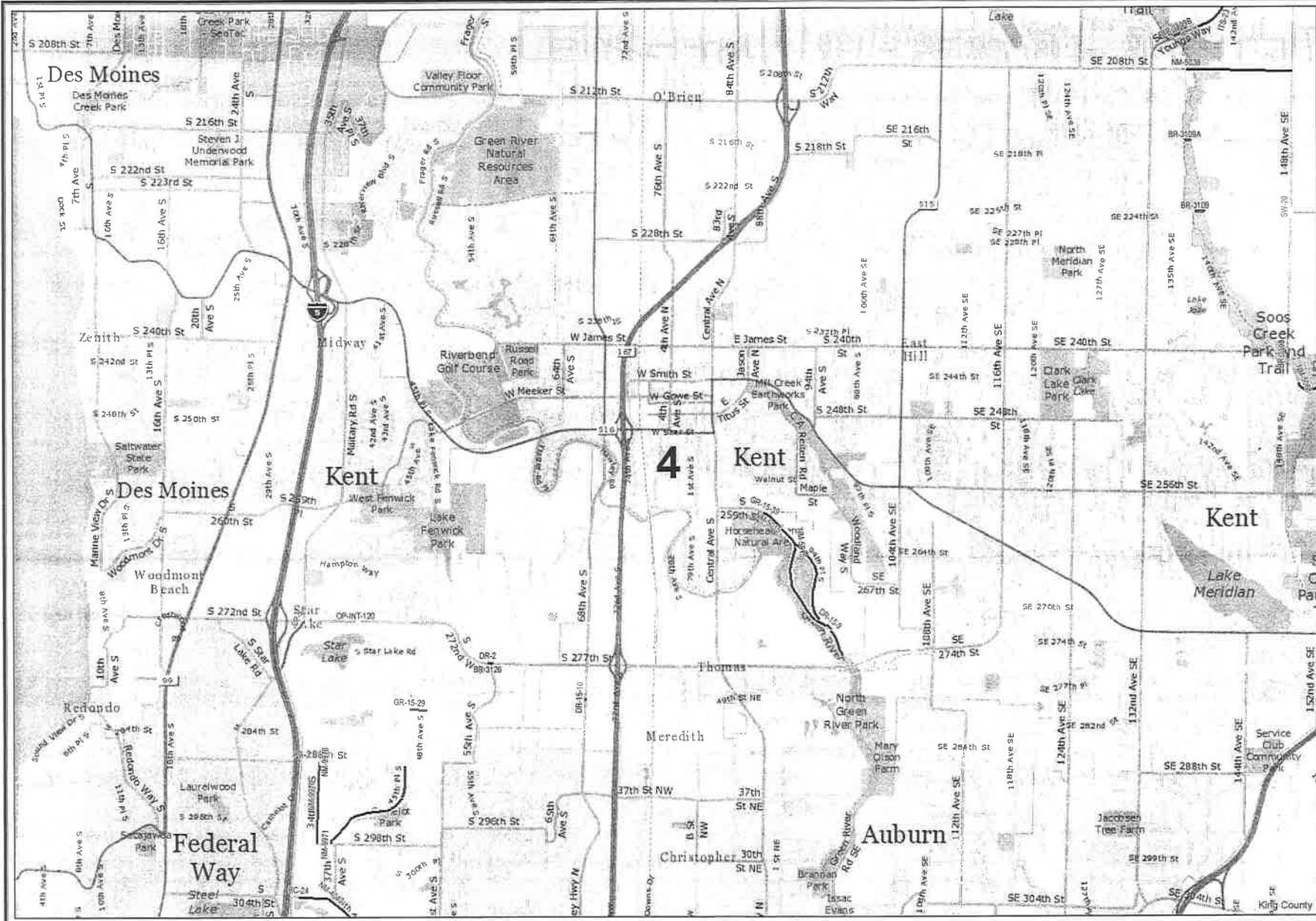
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2016 Transportation Needs Report

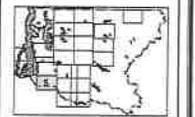
East Federal Way

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



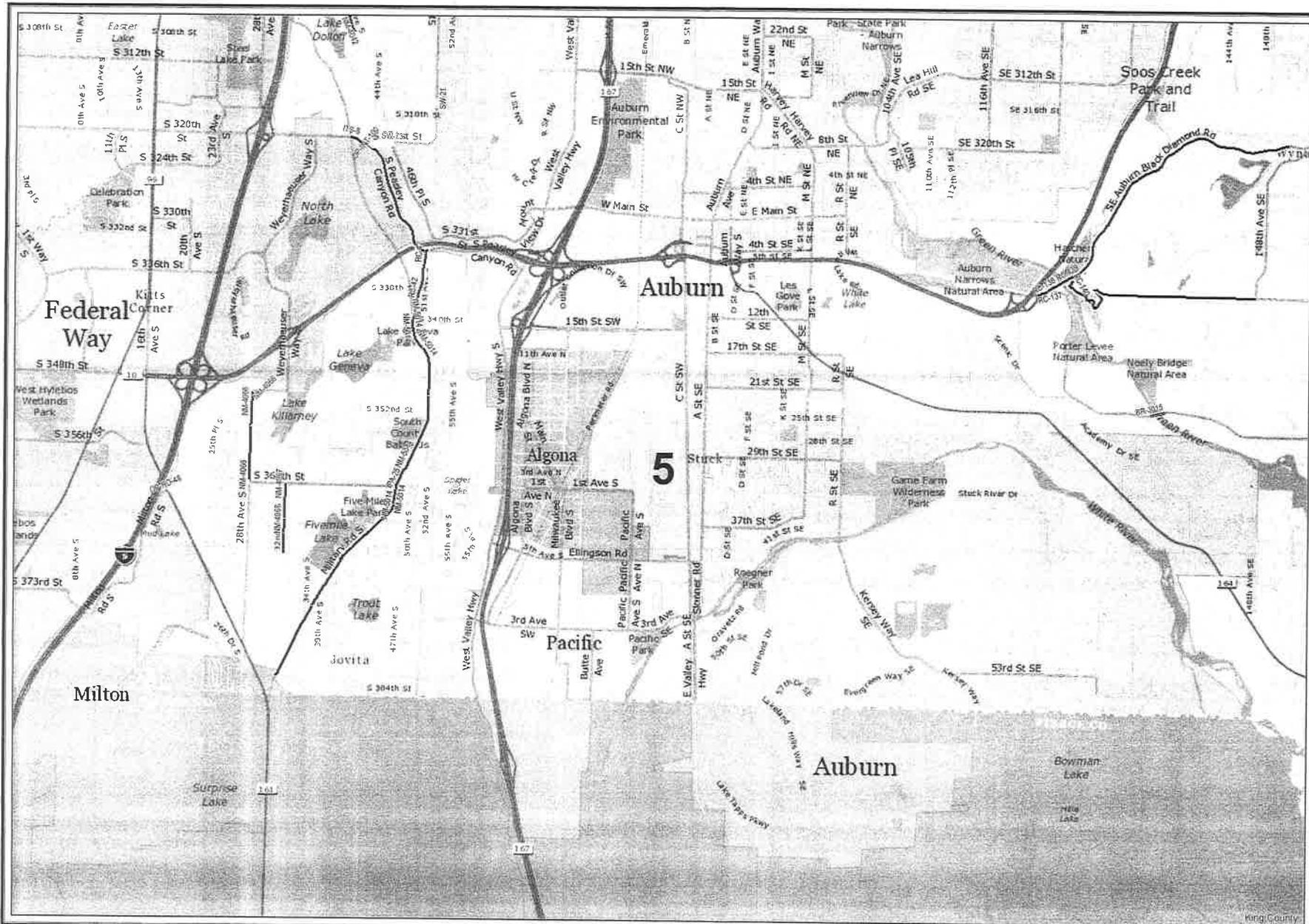
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King County

King County
2016
Transportation
Needs Report

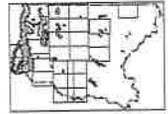
Woodinville

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



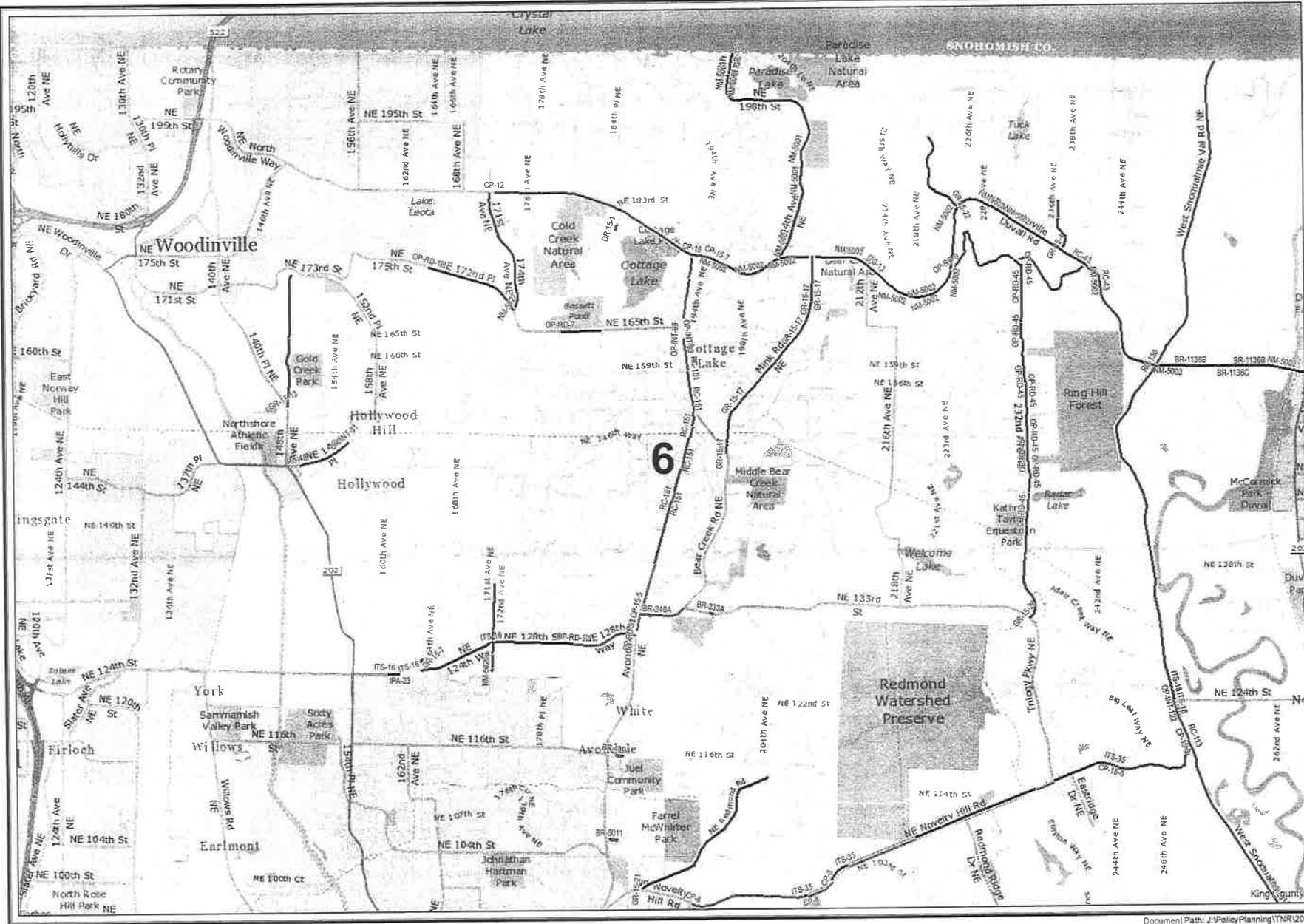
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2016 Transportation Needs Report

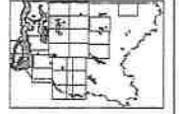
Redmond/Sammamish

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



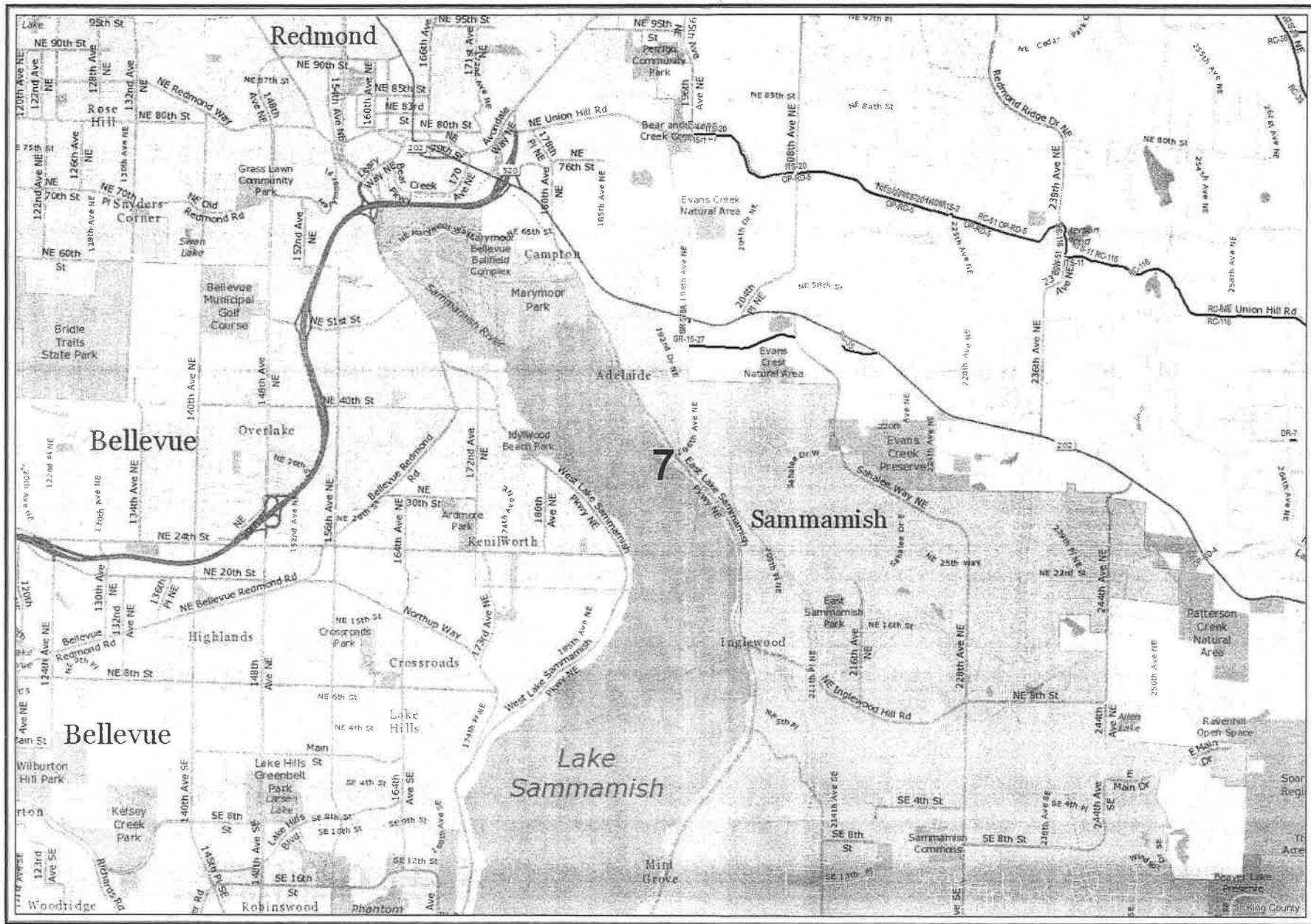
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2016 Transportation Needs Report

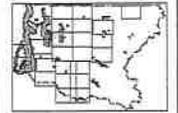
Newcastle/Issaquah

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



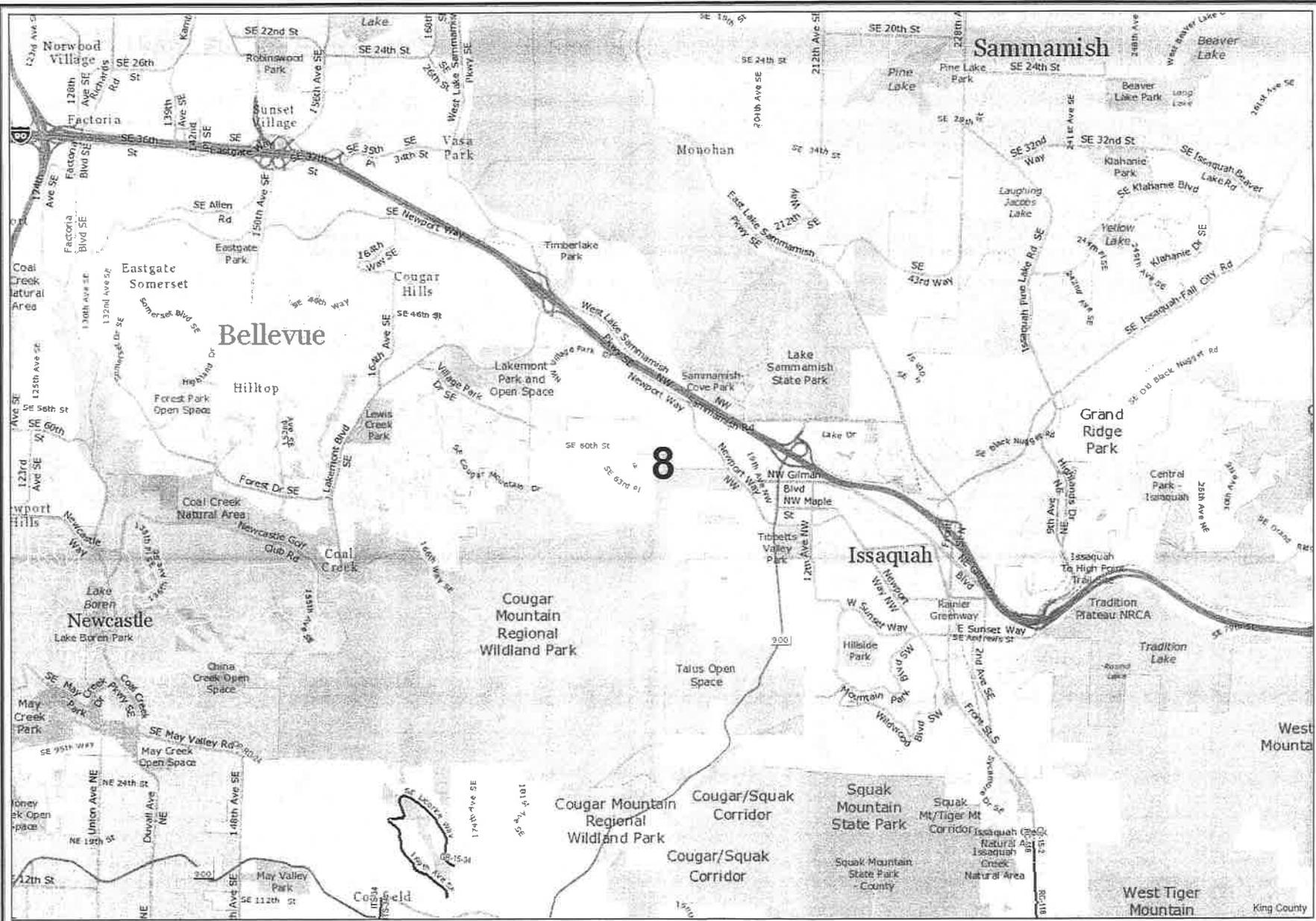
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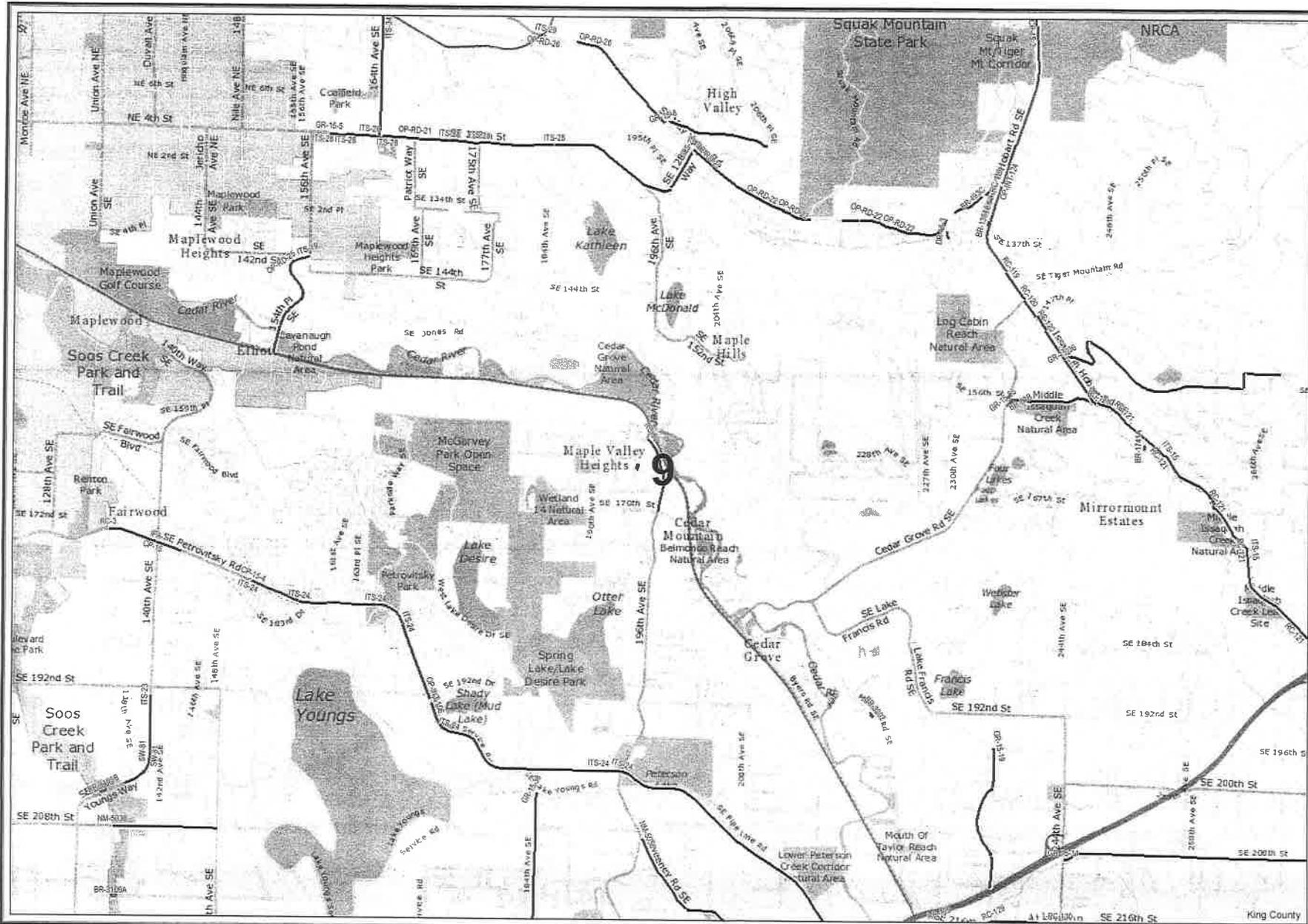
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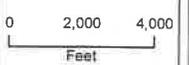




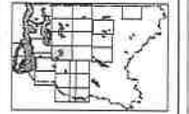
2016 Transportation Needs Report

East Renton/Lake Youngs

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



King County Index Map



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King County
2016
Transportation
Needs Report

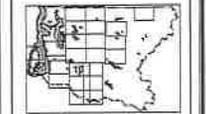
Covington/Black Diamond

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



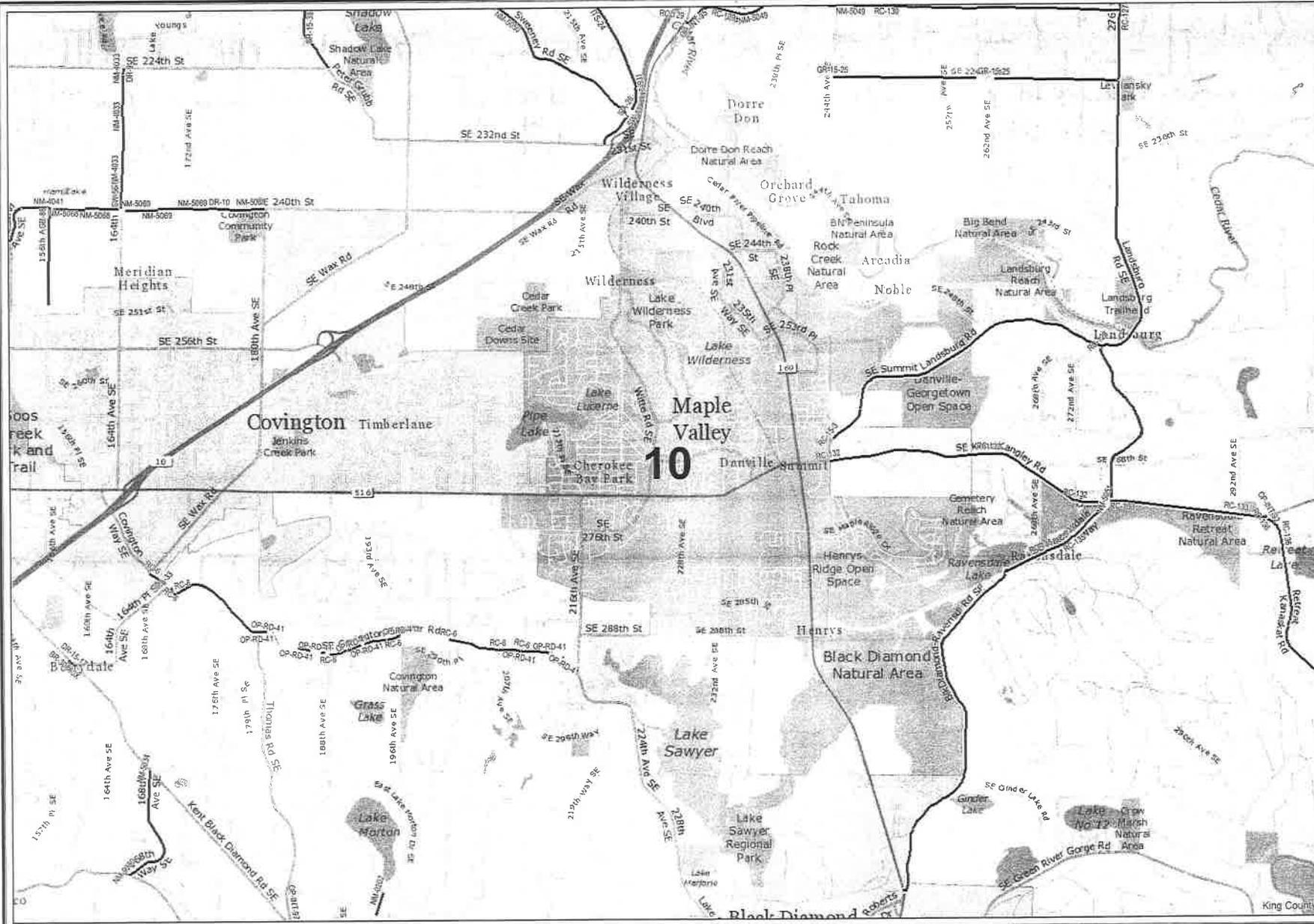
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King County Index Map



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2016
Transportation
Needs Report

North Enumclaw

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



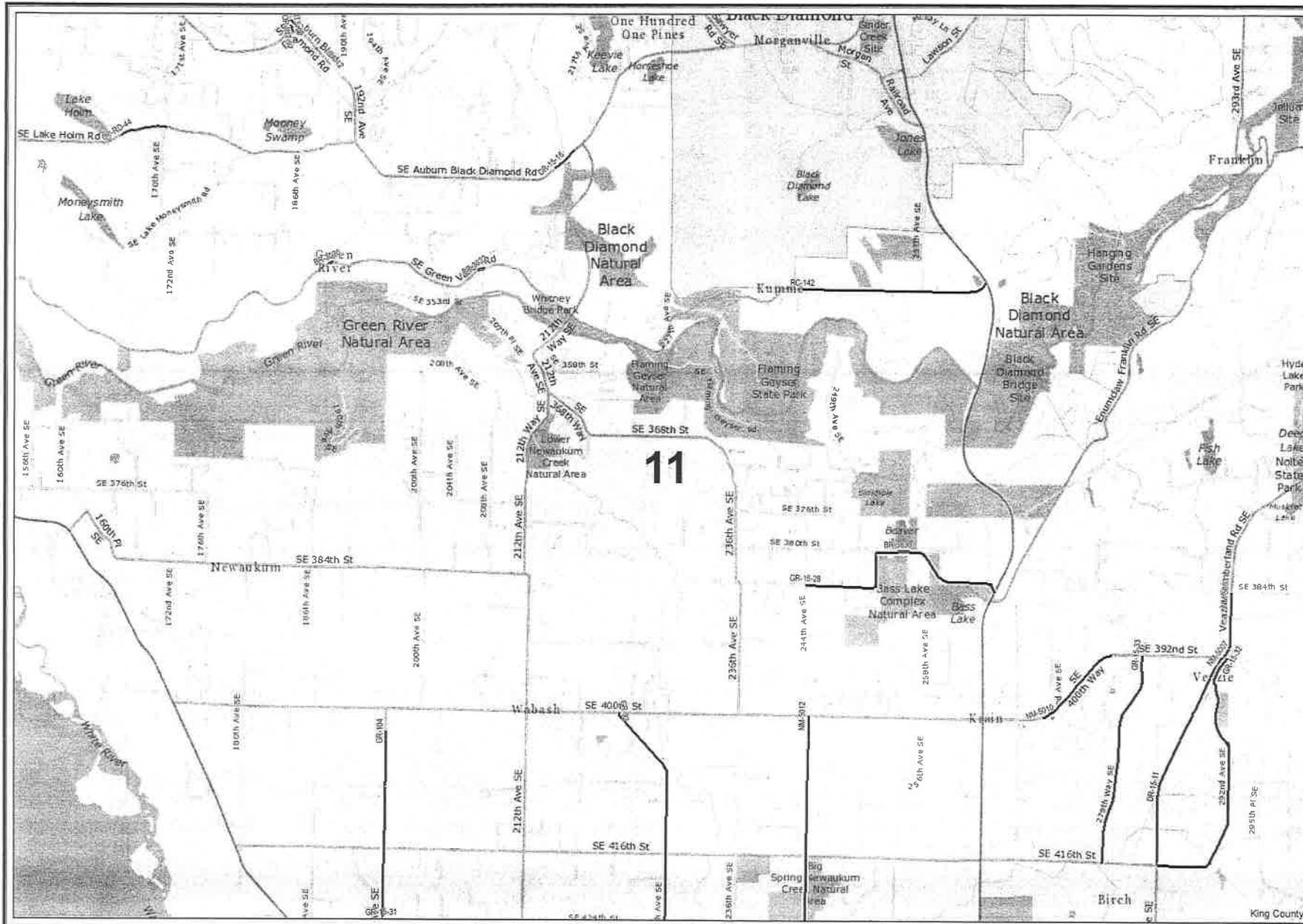
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Feet

King County Index Map



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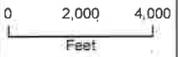
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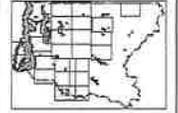
2016 Transportation Needs Report

South Enumclaw

- Bridge
- Capacity
- Drainage
- Guarrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot

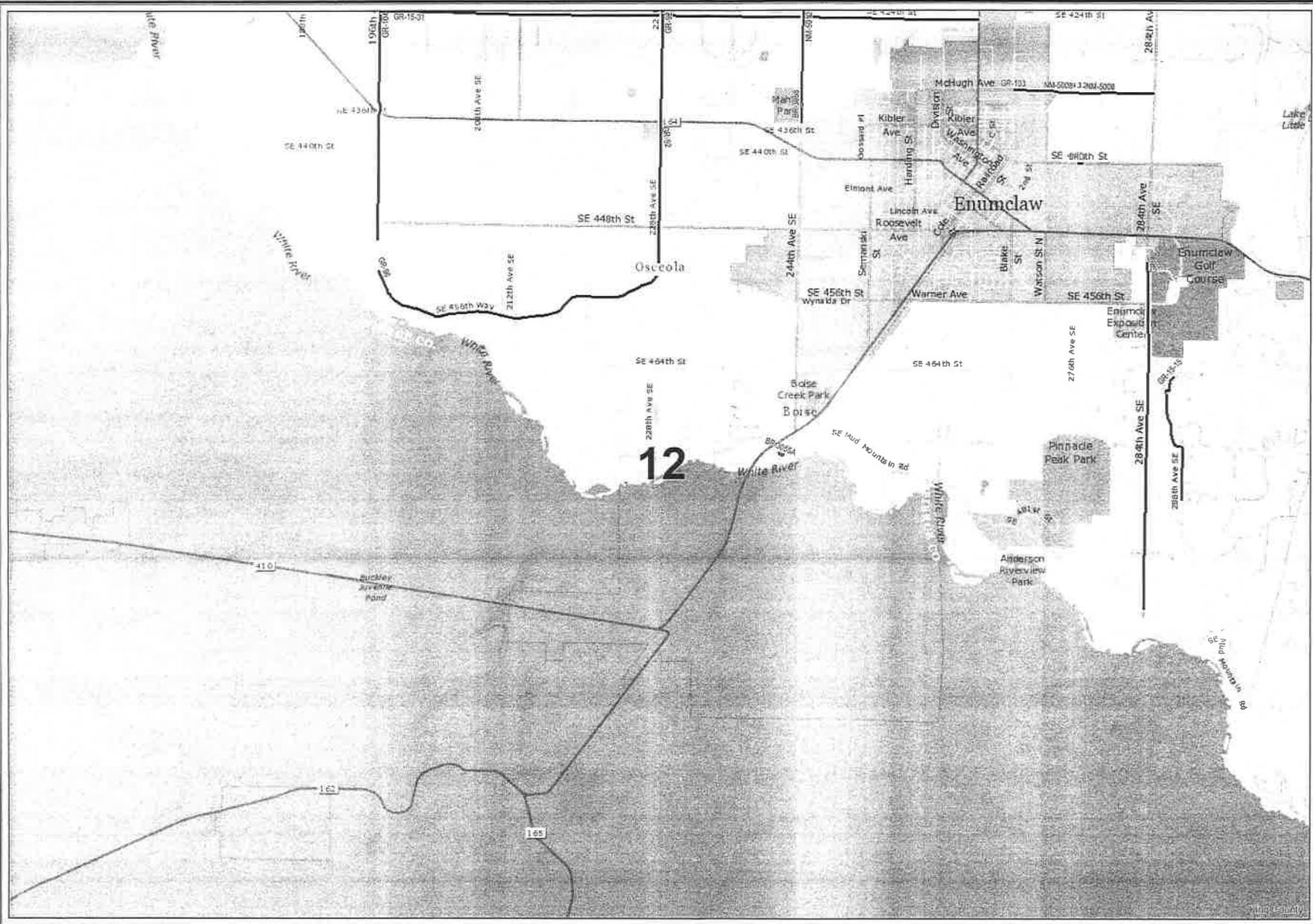


King County Index Map



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2016 Transportation Needs Report

Carnation

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



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Feet

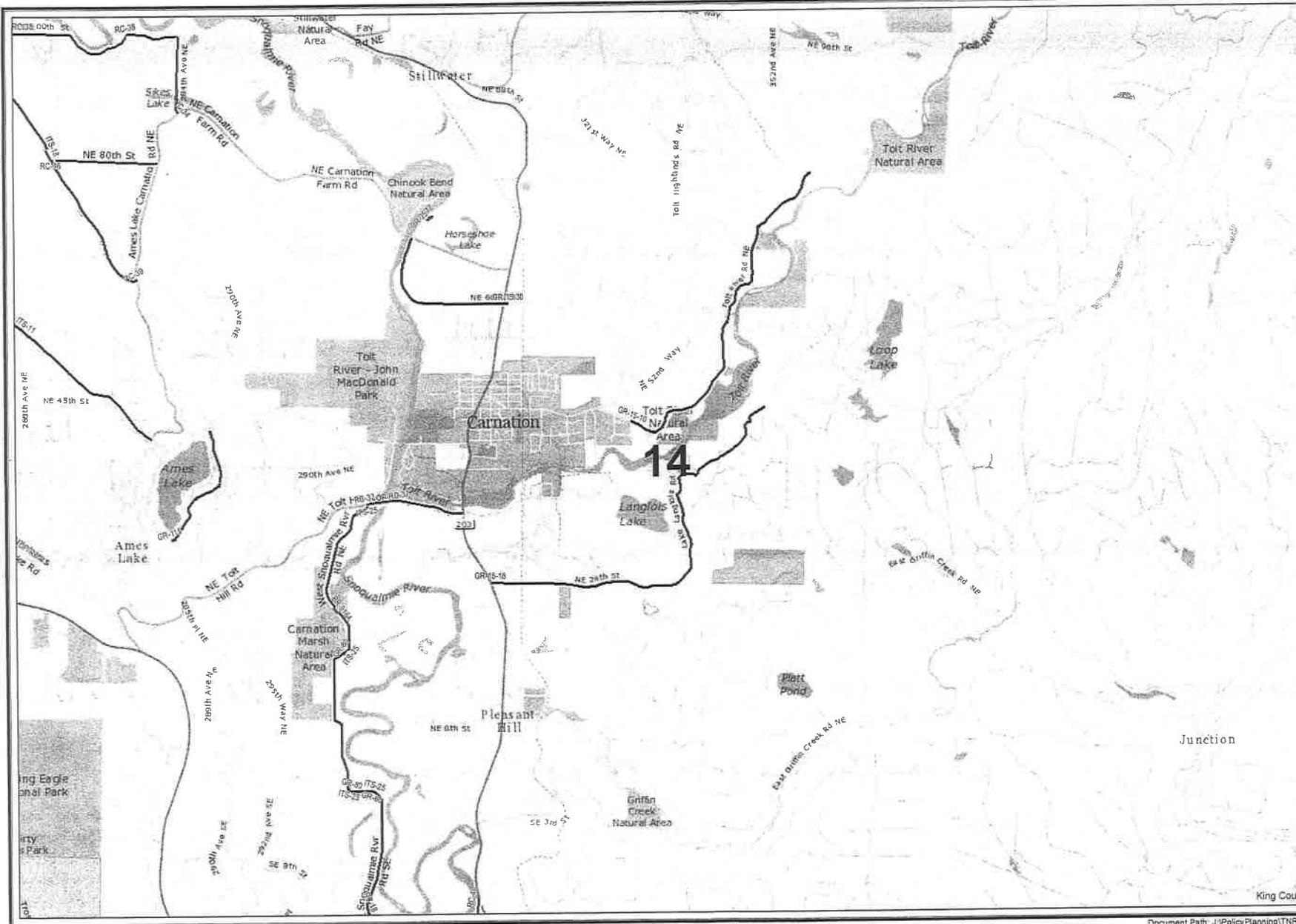
King County Index Map



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King County

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2016
Transportation
Needs Report

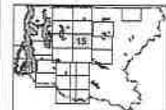
Snoqualmie

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



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Feet

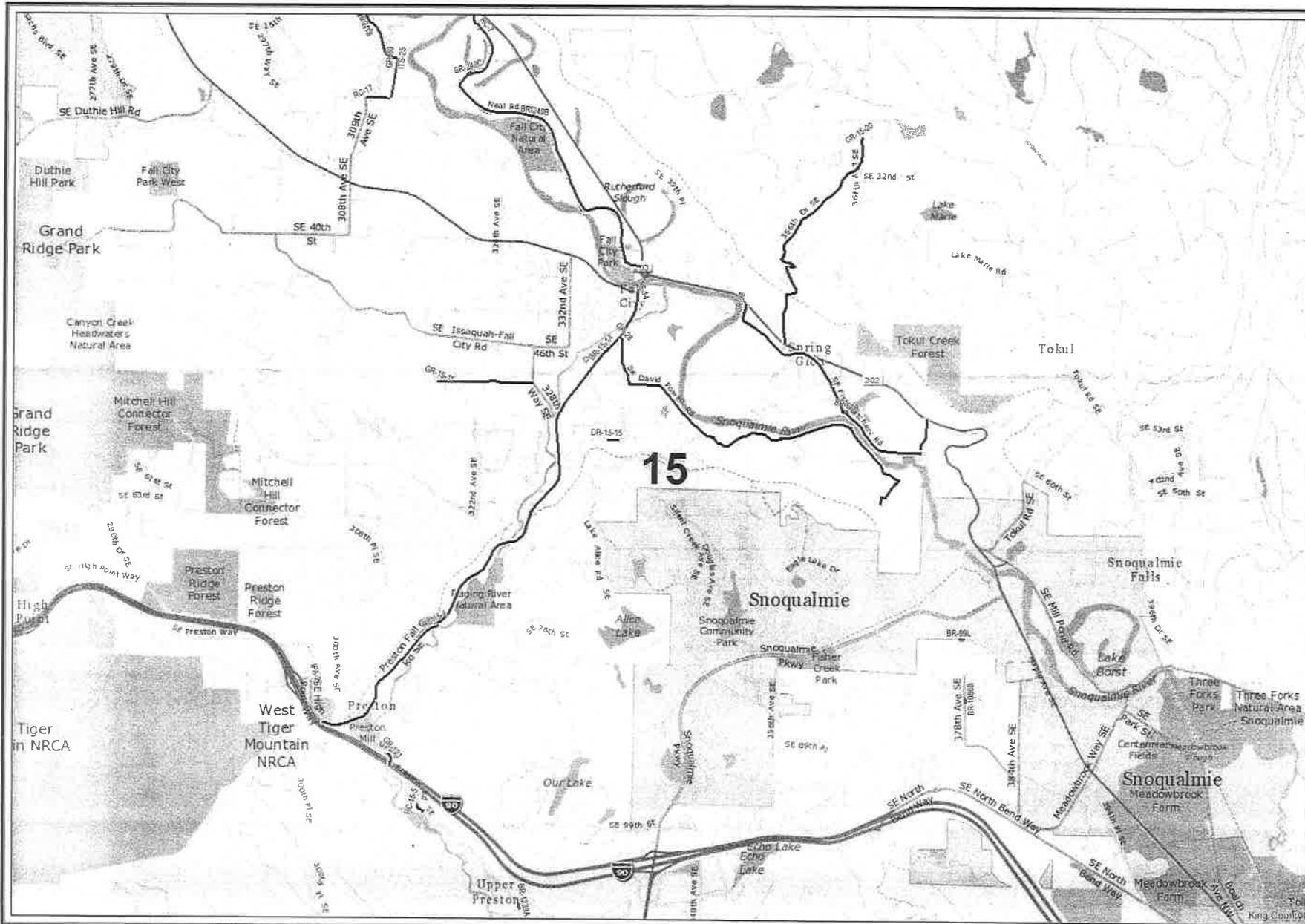
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15



2016
Transportation
Needs Report

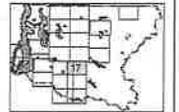
Ravensdale

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



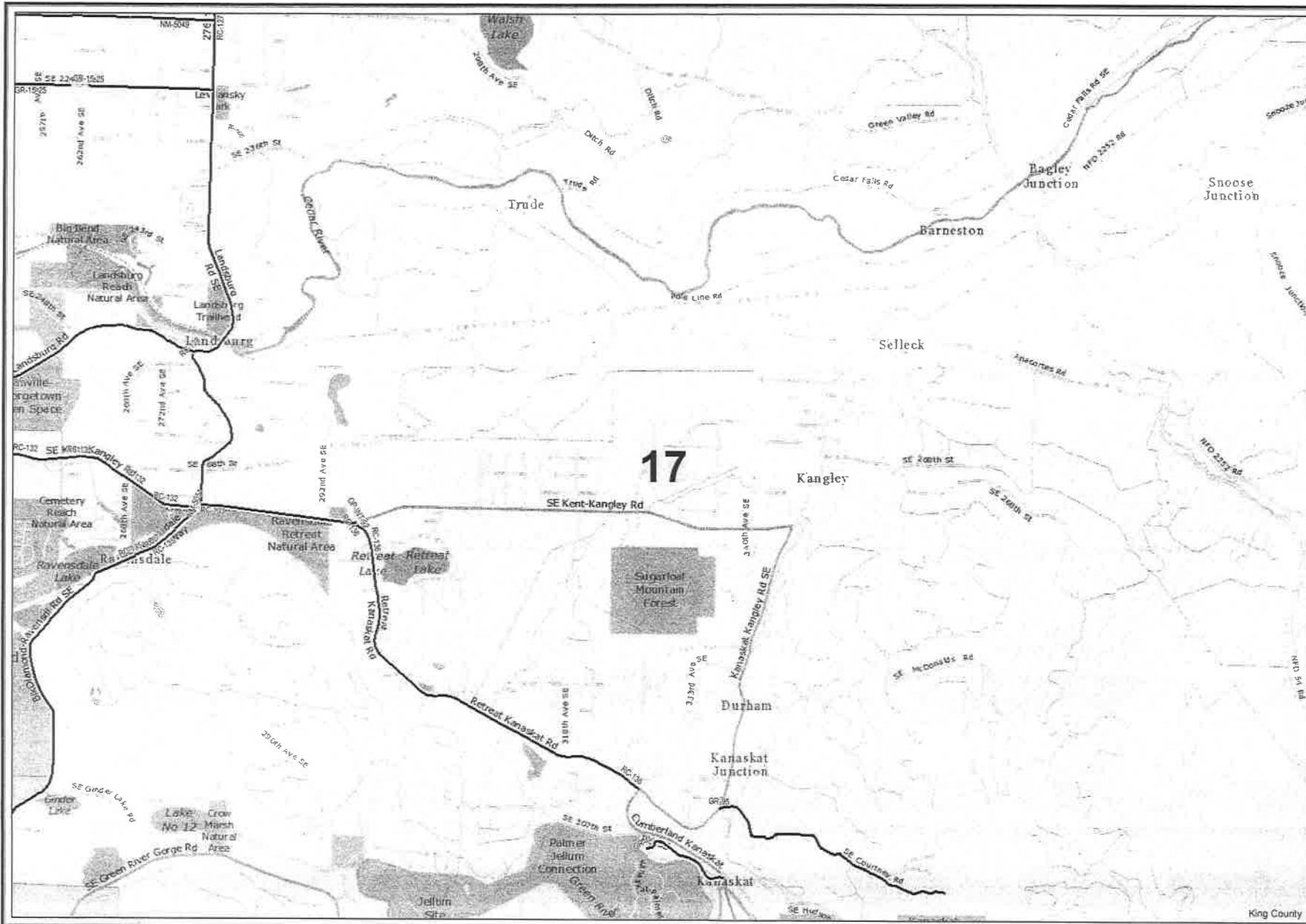
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Feet

King County Index Map



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King County

2016 Transportation Needs Report

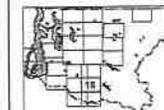
Cumberland

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



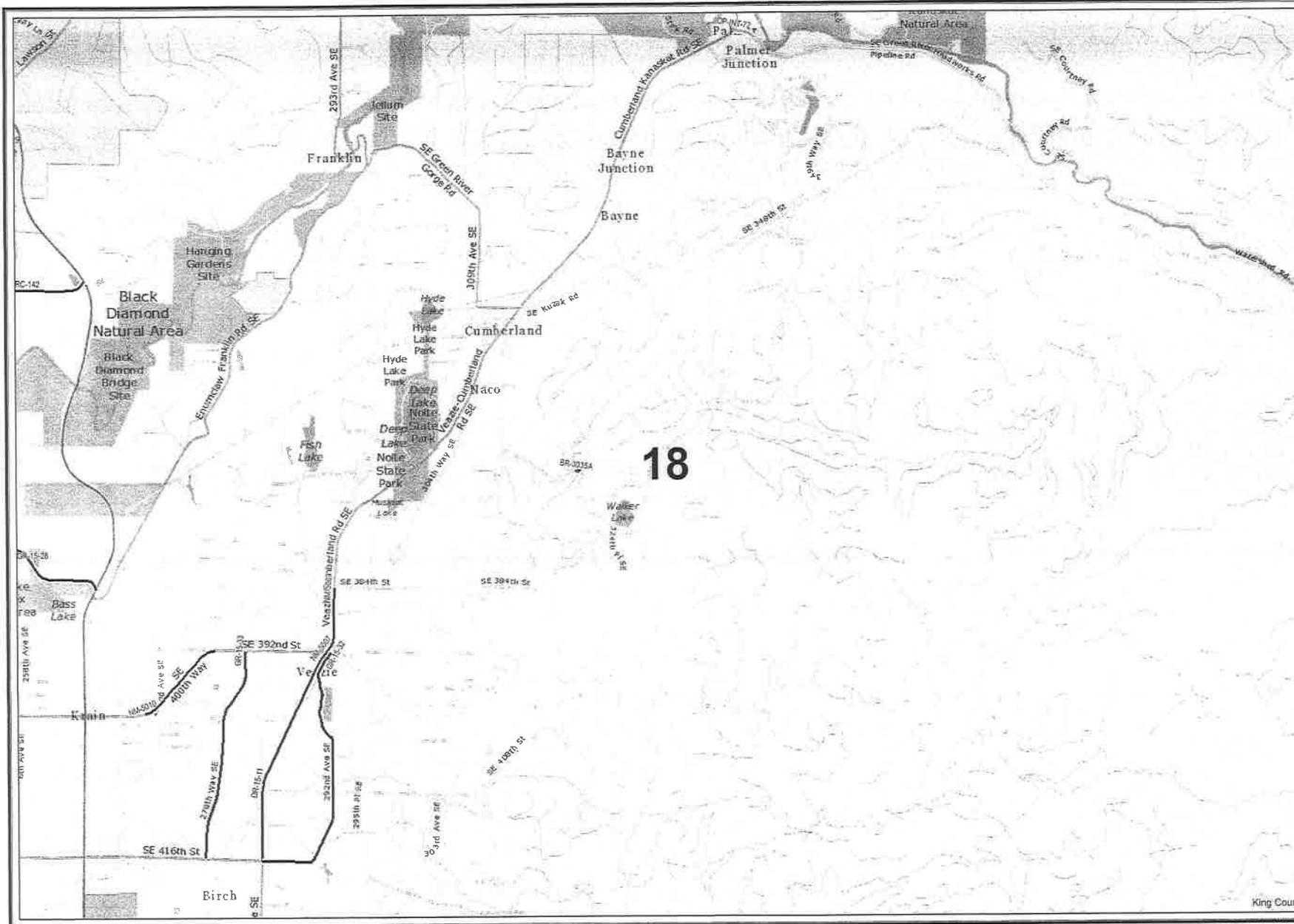
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Feet

King County Index Map



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King County
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2016
Transportation
Needs Report

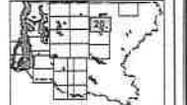
North Fork Snoqualmie

- Bridge
- Capacity
- Drainage
- Guardrail
- ITS
- Intersection Priority Array
- Non Motorized
- Reconstruction
- VRS Hotspot



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Feet

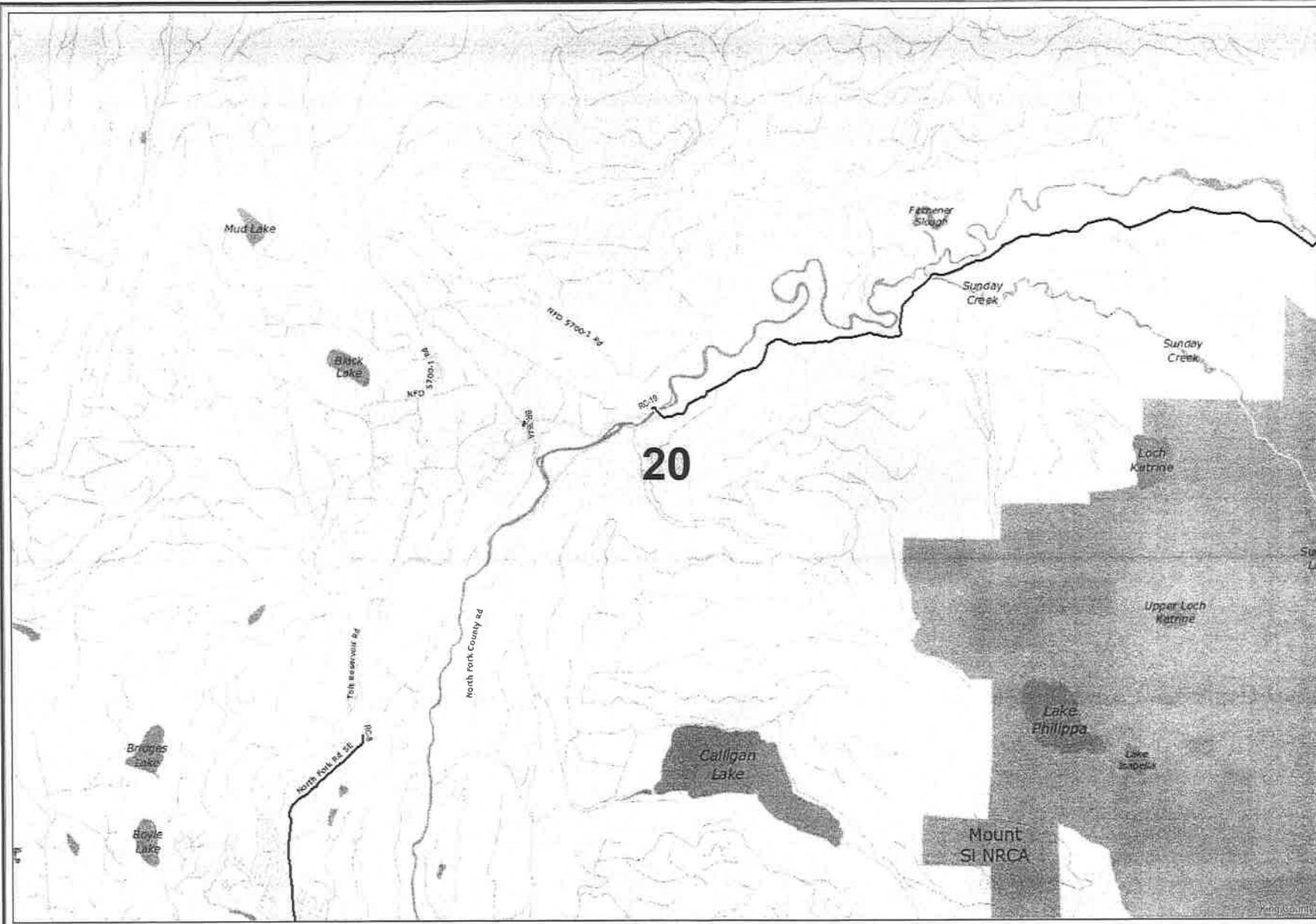
King County Index Map



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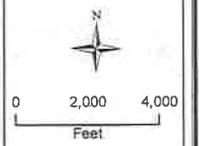
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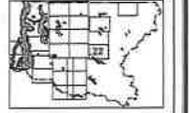
**2016
Transportation
Needs Report**

East North Bend

-  Bridge
-  Capacity
-  Drainage
-  Guardrail
-  ITS
-  Intersection Priority Array
-  Non Motorized
-  Reconstruction
-  VRS Hotspot

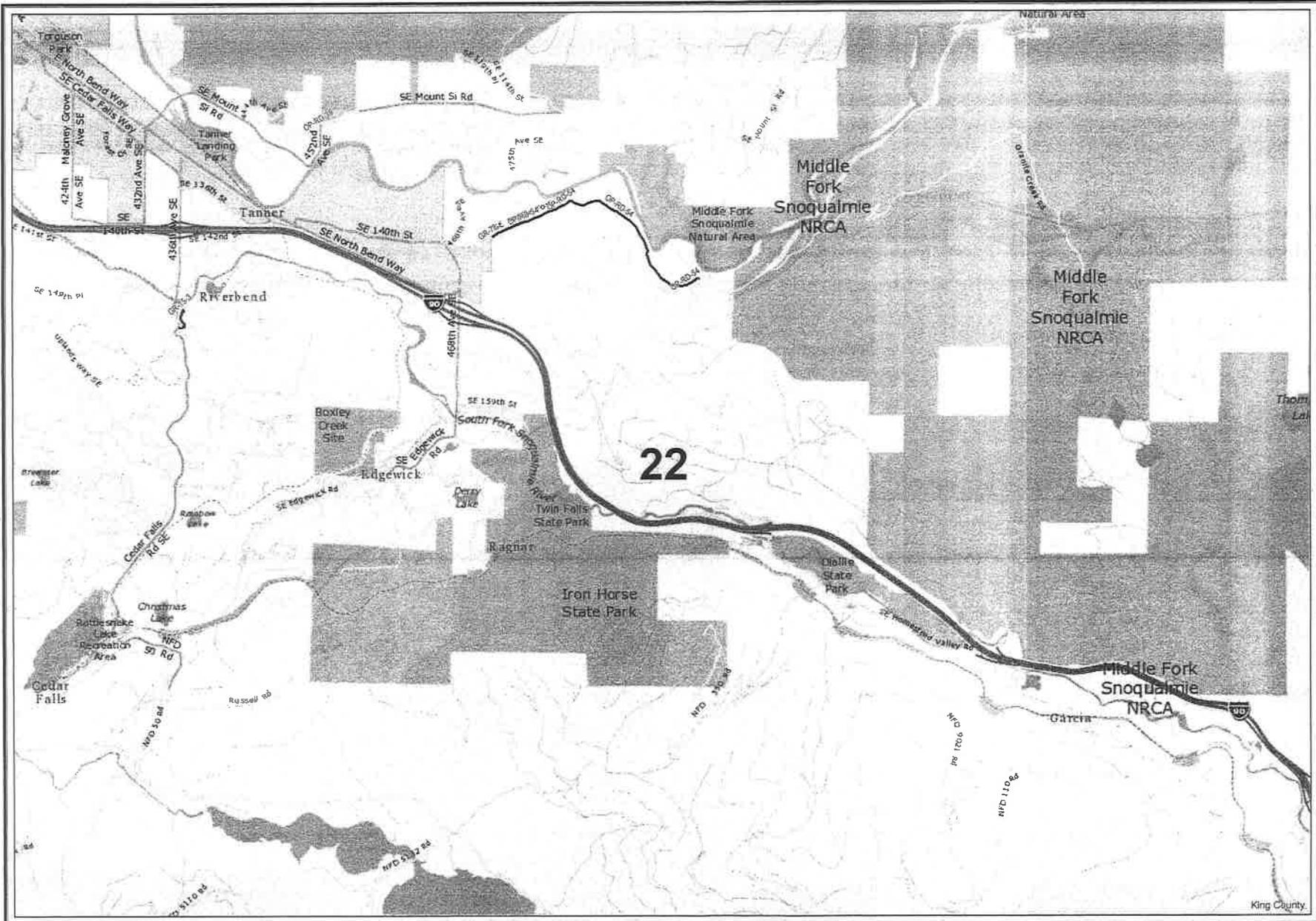


King County Index Map



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**Attachment G to Proposed Ordinance 2016-0155
Technical Appendix C2 to 2016 Comprehensive Plan**



King County

2016
King County Comprehensive Plan Update

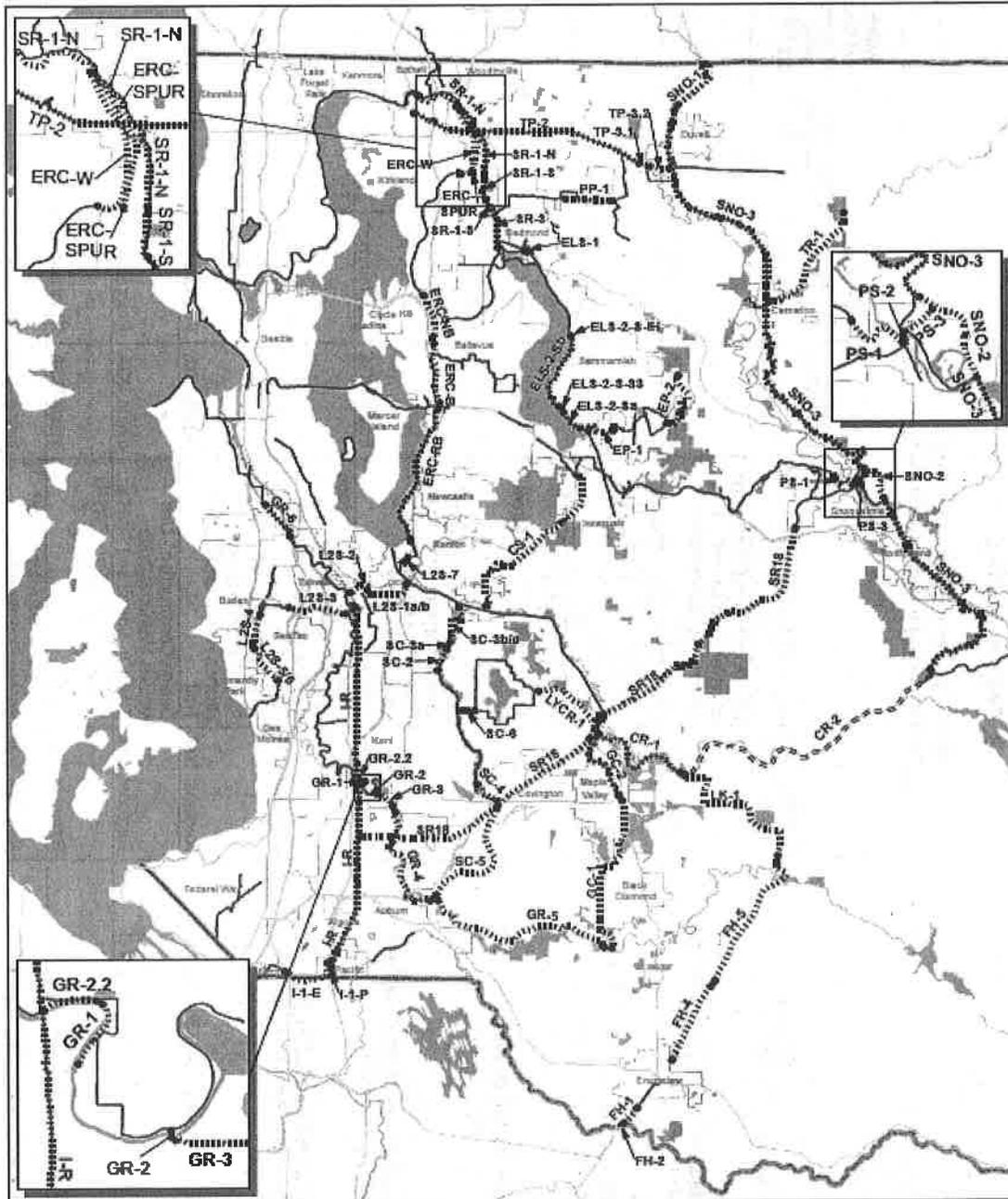
**TECHNICAL APPENDIX C2:
REGIONAL TRAILS NEEDS REPORT**

~~((September 1))~~ November 22, 2016

Regional Trails Needs Report

The King County Regional Trail System is one of the nation's most extensive multi-use off-road systems, with over 175 miles of trails for bicycling, hiking, walking, and other activities. This developing network provides extensive opportunities for recreation and non-motorized mobility and commuting throughout King County. The following **Regional Trails Needs Report** contains a list of future projects in broad programmatic categories. Each project contains project title, general description, project status and preliminary cost estimates. The **Regional Trails Needs Report** is a component of the King County Comprehensive Plan's Chapter 7: Parks, Open Space and Cultural Resources.

A. Project Map



Regional Trails Needs Report



- Regional Trails Projects
- Current landuse may preclude development
- Existing Regional Trails
- King County Park System
- Incorporated Area

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B. Project Listing

**REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)**

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
Regional Trails System - Legacy Projects									
1	ERC-RB	Eastside Rail Corridor Trail (ERC), Mainline Renton-Bellevue	Regional Trail	Planning/Design/Construction of paved regional trail, south terminus to approximately Interstate 90.	Inside UGA	Programmed	6.2	21.7	31.0
2	ERC-B	Eastside Rail Corridor Trail (ERC), Mainline Bellevue Segment	Regional Trail	Planning/Design/Construction of paved regional trail, Interstate 90 to approximately NE 8th Street.	Inside UGA	Programmed	2.7	9.5	13.5
3	ERC-NB	Eastside Rail Corridor Trail (ERC), Mainline North Bellevue Segment	Regional Trail	Planning/Design/Construction of paved regional trail, approximately NE 8th Street to south Kirkland city boundary.	Inside UGA	Programmed	2.4	8.4	12.0
4	ERC-W	Eastside Rail Corridor Trail (ERC), Mainline Woodinville	Regional Trail	Planning/Design/Construction of paved regional trail, 132nd Place NE in Kirkland to near Sammamish River in Woodinville.	Inside UGA	Programmed	3.4	11.9	17.0
5	ERC-Spur	Eastside Rail Corridor Trail (ERC), Woodinville-Redmond Spur	Regional Trail	Planning/Design/Construction of paved regional trail, Mainline Woodinville to NE 124th Street.	Inside UGA	Programmed	3.0	10.5	15.0
6	L2S-2	Lake to Sound Trail, Segment A	Regional Trail	Design/Construction - Black River Forest Segment; Naches Ave to Green River Trail	Inside UGA	Programmed	1.0	3.5	5.0
7	L2S-4	Lake to Sound Trail, Segment B	Regional Trail	Design/Construction - Des Moines Memorial Drive (DMMD), Burien and SeaTac	Inside UGA	Programmed	1.5	5.1	7.3
8	L2S-5/6	Lake to Sound Trail, Segment C	Regional Trail	Design/Construction - DMMD to Des Moines Creek @ S. 200th	Inside UGA	Programmed	2.4	8.4	12.0
9	L2S-1a	Lake to Sound Trail, Segment D	Regional Trail	Design/Construction - West Renton Downtown	Inside UGA	Programmed	1.5	5.3	7.5

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
10	L2S-1b	Lake to Sound Trail, Segment E	Regional Trail	Design/Construction - East Renton Downtown	Inside UGA	Programmed	0.5	1.8	2.5
11	L2S-3	Lake to Sound Trail, Segment F	Regional Trail	Design/Construction - Tukwila and SeaTac - Green R. Trail to SeaTac Airport	Inside UGA	Programmed	1.0	3.5	5.0
							25.6	89.4	127.8

High Priority Non-Legacy Projects with design and/or construction is programmed in the 2014 - 2019 Capital Improvement Program

12	ELS-2-Sa	East Lake Sammamish Trail, South Sammamish A	Regional Trail	Continues design /construction of paved master-planned ELST from south Sammamish city boundary to SE 33rd Street in Sammamish.	Inside UGA	Programmed	1.3	4.6	6.5
13	ELS-2-Sb	East Lake Sammamish Trail, South Sammamish B	Regional Trail	Continues development of paved master-planned ELST from SE 33rd Street to Inglewood Hill Road	Inside UGA	Programmed	3.4	11.9	17.0
14	ELS-2-S-IH	East Lake Sammamish Trail, Parking - Inglewood Hill ⁽⁴⁾	Regional Trail Gateway	Design/construction of new parking lot to serve ELST	Inside UGA	N/A	N/A	4.9	4.9
15	ELS-2-S-33	East Lake Sammamish Trail, Parking - SE 33rd Street ⁽⁴⁾	Regional Trail Gateway	Design/construction of new parking lot to serve ELST	Inside UGA	N/A	N/A	4.5	4.5
16	GC-2	Green to Cedar Rivers Trail, North	Regional Trail	Design/construct Green-to-Cedar Rivers Trail - Retrofit: Paved and Equestrian Trail - Cedar River Trail to Kent-Kangley Rd	Inside UGA	Programmed	3.3	11.6	16.5
17	GC-1	Green to Cedar Rivers Trail, South	Regional Trail	Design/construct paved and soft surface trail from Kent-Kangley Road south to Flaming Geyser State Park along RR corridor and other alignments.	Inside and Outside UGA	Programmed	8.1	28.4	40.5

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
18	MC-1-12	Mobility Connections , Priority bicycle/pedestrian projects linking RTS to designated Urban Centers and ((Transit)) Transit: up to 12 priority projects may be identified and potentially implemented as a high priority. ⁽⁵⁾	Mobility Connection	Design/construct bicycle/pedestrian mobility connections in public right-of-way linking regional trails with urban centers and transit stations. Projects to be determined.	Inside UGA	N/A	Varies	12.0	24.0
19	L2S-7	Lake to Sound Trail , Segment G	Regional Trail	Design/Construction - Downtown Renton to south terminus of the ERC. Newly-proposed project has yet to be included in regional transportation plan.	Inside UGA	Update to Plan	1.9	6.7	9.5
20	GR-6	Green River Trail , North Extension (Green to Duwamish)	Regional Trail or In-Road Route	Design/construct Green R. Trail to Seattle to connect with Duwamish Trail. Trail may require in-road ROW development due to highly constrained ROW.	Inside UGA	Programmed	1.8	6.3	9.0
21	SC-2	Soos Creek Trail , Phase 5 (192nd - Petrovitsky) ⁽⁴⁾	Regional Trail	Design/construct paved trail from SE 192nd St to Petrovitsky Road.	Inside UGA	Programmed	1.2	9.0	9.0
22	SNO-2	Snoqualmie Valley Trail , Snoqualmie Mill Gap ⁽³⁾	Regional Trail	Design/construct soft surface trail through historic Snoqualmie Mill Site to fill gap in Snoqualmie Valley Trail. Reinig Road to Tokul Road. May include bridging ((Reinig)) Reinig Road.	Inside UGA	Programmed	2.2	6.2	9.3
23	FH-1	Foothills Trail , South	Regional Trail	Design/construct paved and soft surface trail between Enumclaw and White River along historic RR corridor parallel to Boise Creek.	Outside UGA, but connects UGAs within King and Pierce Counties (Enumclaw, Buckley)	Programmed	1.1	3.9	5.5

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
24	FH-2	Foothills Trail, White River Bridge	Regional Trail Bridge	Design/construct regional trail bridge over White River extending from the south terminus of Foothills Trail in King County to Pierce County.	Outside UGA, but connects UGAs within King and Pierce Counties (Enumclaw, Buckley)	Programmed	N/A	6.9	6.9
							24.3	116.6	163.1

Tier 3 Priority

25	SR-3	Sammamish River Trail, Redmond Improvement (Widening)	Regional Trail Upgrade	Upgrade (widen and improve) existing paved trail in Redmond from NE 116th Street to Marymoor Park. The project would continue and complete the previous SRT widening program.	Inside UGA	New	1.0	3.5	5.0
26	SC-3a	Soos Creek Trail, Phase 6 - Petrovitsky Crossing. ⁽⁴⁾	Regional Trail Grade Separated Crossing	Design/construct grade separated crossing of Petrovitsky Road.	Inside UGA	Programmed	N/A	5.1	5.1
27	SC-3b	Soos Creek Trail, Phase 6 - Renton Park Segment	Regional Trail	Design/construct ((paved)) paved regional trail, Renton Park - Petrovitsky to Lindburgh HS.	Inside UGA	Programmed	0.8	2.7	3.8
28	SC-3c	Soos Creek Trail, Phase 6 - ((Lindburg)) Lindburgh to CRT	Regional Trail	Design/construct paved regional trail, Lindburgh HS to Cedar River Trail.	Inside UGA	Programmed	2.0	6.8	9.8
29	GR-1	Green River Trail, Phase 2	Regional Trail	Design/construct paved trail south of SE 259th Street in Kent.	Inside UGA	Programmed	0.5	1.8	2.5
30	I-R	Interurban Trail (South), Redevelopment	Regional Trails Redevelopment	Plan/design/construct redeveloped paved trail to replace existing trail; Green River Trail in Tukwila to 3rd Street in Pacific. May be undertaken in multiple phases.	Inside UGA	Update to Plan	14.8	51.8	74.0

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
31	SC-4	Soos Creek Trail, Phase 7	Regional Trail	Design/construct paved and soft surface regional trail; southern terminus of existing Soos Creek Trail near SE 266th Street to Covington Way/Kent-Kangley Road.	Inside UGA	Unprogrammed	0.8	2.8	4.0
32	SR18	SR18 Trail (Segments)	Regional Trail	Design/construct paved and soft surface regional trail. Project may be developed in distinct segments.	Inside and Outside UGA	Programmed	25.0	87.5	125.0
33	SNO-1	Snoqualmie Valley Trail, Phase 4 (North Extension) ⁽³⁾	Regional Trail	Design/construct extension of soft surface trail from Duvall to Snohomish County to link with Snohomish Co regional trails.	Outside UGA	Unprogrammed	3.2	9.0	13.6
							48.0	170.9	242.7

Tier 4 Priority									
Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
34	CS-1	Cedar-Sammamish Trail	Regional Trail	Design and construct a paved trail between the Cedar River Trail and Issaquah. Project would intersect Cedar River Trail at 154th PI SE near Renton and continue north to existing trail at intersection of 17th Ave NW at Newport Way NW in Issaquah.	Inside and outside UGA	Programmed	5.6	19.6	28.0
35	ELS-1	East Lake Sammamish Trail - North	Regional Trail	Design and construct extension of paved trail from NE 70th St in Redmond to Bear Creek Parkway through the SR-520 interchange and across Bear Creek.	Inside UGA	Programmed	1.0	3.5	5.0

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
36	PS-1	Preston Snoqualmie Trail Extension	Regional Trail	Design and construct extension of existing trail to Snoqualmie past Snoqualmie Falls on historic RR line along north side of Snoqualmie Ridge using up to three trestles/bridges. Trail will co-locate with operating scenic RR near falls.	Inside and outside UGA	Update to Plan	1.1	3.9	5.5
37	SR-1-S	W Sammamish River Trail (Soft-Surface) South Phase - Leary Way to NE 124th Street ⁽³⁾	Regional Trail	Design and construct a soft surface trail along the west side of the Sammamish R. parallel with existing paved trail.	Inside and outside UGA	Programmed	3.1	8.7	13.1
38	SR-1-N	W Sammamish River Trail (Soft-Surface) North Phase - NE 124th to 102nd Ave NE in Bothell ⁽³⁾	Regional Trail	Design and construct a soft surface trail on west side of Sammamish R. between NE 124th Street at Redmond to 102nd Ave NE. Portion in Bothell uses abandoned RR corridor	Inside and outside UGA	Programmed	5.4	15.1	22.9
39	GR-3	Green River Trail Phase 3	Regional Trail	Design and construct and extension of the paved trail south between Kent and Auburn along the Green River; trail will be located between existing Green River Trail in Kent and S 277th Street in Auburn.	Connects UGAs	Programmed	2.7	9.5	13.5
40	GR-2.2	Green River 2.2 (259th St SE)	Regional Trail	Design and construct a missing link in the trail along S 259th Street in Kent from the Interurban Trail (South) to Green River Trail Phase 2 project site.	Inside UGA	Programmed	0.3	1.1	1.5

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
41	GR-4	Green River Trail Phase 4	Regional Trail	Design and construct paved trail through central Auburn; may require new bridge across the Green River near ((Brannan)) Brannan Park that would be a separate project (not included in project scope and ((cost)) cost estimate).	Inside UGA	Programmed	4.7	16.5	23.5
42	GR-2	Green River Bridge ⁽⁵⁾	Regional Trail Bridge	Design and construct a new river bridge between Central Place S and 86th Ave S to extend the trail; project contingent upon using "Horse Neck" route for Green River Phase 3.	Inside UGA	Update to Plan	N/A	2.7	2.7
43	EP-2	East Plateau Trail - Klahanie to Soaring Eagle Park	Regional Trail	Design and construct a paved trail from Klahanie at Issaquah-Beaver Lake Road to Soaring Eagle Park via Duthie Hill Park and Trossachs community.	Inside and outside UGA	Programmed	2.6	7.3	11.0
44	SC-6	Soos Creek Trail to Lake Youngs Trail ⁽³⁾	Regional Trail and On-Road	Project would be a short on-road and off-road link between Soos Creek Trail and Lake Youngs Trail at SE 148th Ave. via SE 216th Street and crossing a powerline corridor. Off-road segment would be soft surface. Trail would require in-road designation and limited improvements through powerline area.	Outside UGA	Unprogrammed	0.7	2.5	3.5
							27.2	90.1	130.3

Regional Trail - Planned

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
45	PS-3	Snoqualmie Regional Connector	Regional Trail	Design and construct a paved and soft surface regional trail link between Preston-Snoqualmie and Snoqualmie Valley trails by constructing trail between trail at Tokul Tunnel and SR-202/SE Stearns Road.	Inside UGA	Unprogrammed	0.8	2.6	3.8
46	I-1-P	Interurban Trail Extension - Pacific (Partnership)	Regional Trail	Design and construct connection to Pierce Co through City of Pacific (Partnership). Paved trail would link south end of existing Interurban Trail with the City of Sumner.	Inside UGA	Unprogrammed	1.4	4.7	6.8
47	EP-1	Laughing Jacobs Creek Trail Segment	Regional Trail	Design and construct missing link in trail system along Laughing Jacobs Creek near SE 43rd Way through Providence Point area. Paved trail would link ELST with East Plateau Trails and Klahanie.	Inside UGA	Unprogrammed	0.5	1.8	2.5
48	FH-4	((Foothills) Foothills Trail (Enumclaw Plateau) Trail - Central	Regional Trail	Design and construct north segment of trail from Enumclaw to Nolte State Park along abandoned railroad corridor. Trail would be paved and soft surface and use a historic RR corridor.	Outside UGA	Unprogrammed	4.7	16.5	23.5
49	FH-5	Foothills (Enumclaw Plateau) Trail - North	Regional Trail	Design and construct north segment of trail from Nolte State Park to Kanaskat near Kanaskat-Palmer State Park. Trail would be paved and soft surface and use a historic RR corridor and bridge to cross the Green River.	Outside UGA	Unprogrammed	4.3	15.1	21.5

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
50	LK-1	Landsburg-Kanaskat Trail	Regional Trail	Design and construct extension of the Cedar River Trail corridor east from Landsburg to Kanaskat as a paved and soft surface trail.	Outside UGA	Unprogrammed	8.3	29.1	41.5
51	PP-1	Puget Power Trail - East Segment	Regional Trail	Design and construct extension of existing Puget Power Trail as a paved and soft surface trail to Redmond Ridge (Redmond-to-Redmond segment). Project would extend roughly from McWhirter Park to Novelty Hill Road along powerline.	Connects UGAs	Unprogrammed	2.0	7.0	10.0
52	TP-3.2	Tolt Pipeline Trail and Bridge - Snoqualmie River	Regional Trail and Bridge	Design and construct a ((bike)) bicycle/ped crossing of the Snoqualmie River and trail segment across the floodplain from W ((Snoqualmie)) Snoqualmie Valley Rd to the Snoqualmie Valley Trail on the east side of the valley. Paved and /or soft-surface trail would follow pipeline alignment across river valley.	Outside UGA	Unprogrammed	N/A	3.9	3.9
53	TR-1	Tolt River Trail	Regional Trail	Design and construct extension of trail along the Tolt River northeast of Carnation to Moss Lake. Paved and soft-surface.	Outside UGA	Unprogrammed	6.5	22.8	32.5
54	I-1-E	Interurban Trail Extension - Edgewood (Partnership)	Regional Trail	Design and construct a paved trail to Pierce Co through City of Edgewood along historic Interurban route toward Milton. Project would start at Interurban Trail at 3rd Ave SW and cross under SR167 in-road then southwest along abandoned rail line to Milton.	Inside UGA	Unprogrammed	2.4	8.4	12.0

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
55	TP-3.1	Tolt Pipeline Trail - West Valley Connector	Regional Trail and Possible Drive Connection	Design and construct paved and soft surface trail between the Tolt Pipeline Trail and W Snoqualmie Valley Rd. Steep terrain.	Outside UGA	Not in Plan	0.9	2.5	3.8
56	LYCR-1	Lake Youngs to Cedar River Trail (Soft-Surface)⁽²⁾	Regional Trail	Design and construct a soft surface trail from the east side of Lake Youngs Trail to Cedar River or Green-to-Cedar Rivers trails along a SPU water pipeline corridor roughly following Petrovitsky Rd.	Outside UGA	Programmed	4.1	11.5	17.4
57	GR-5	Green River Trail Phase 5 (Upper)	Regional Trail	Project would extend trail east within Green River Valley south of Auburn to Flaming Geyser State Park. Trail would intersect with future Soos Creek Trail (Phase 8) and Green-to-Cedar Rivers Trail. Paved and soft-surface.	Outside UGA	Programmed	8.1	28.4	40.5
58	PS-2	Snoqualmie River Bridge	Regional Trail Bridge or Co-Location with Road Bridge	Project would construct a new trail bridge over Snoqualmie River east of Snoqualmie Falls near SR 202 Bridge at junction of PST and Snoqualmie Regional Connector. Bridge would likely be located at east end of Preston-Snoqualmie Trail adjacent to existing highway bridge. Co-location with road bridge may be explored.	Inside UGA	Programmed	N/A	1.6	1.6
							43.9	155.7	221.2

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
Regional Trail - Long-Range Planned									
59	CR-1	Cedar River Trail Retrofit: Paved and Equestrian Trail	Regional Trail Redevelopment	Project would extend paved and soft surface trail along existing trail alignment from existing paved trail in Maple Valley to Landsburg Trailhead Park at Landsburg Rd SE. Equestrian component would be integral component.	Part inside UGA	Update to Plan	5.0	17.5	25.0
60	SC-5	Soos Creek Trail Phase 8 (SR18-GRT)⁽⁴⁾	Regional Trail or On-Road Facility	Project would extend trail as in-road facility (e.g., (cycletrack) cycle track or other in-road) and/or off-road trail from 156th PI SE at Kent-Kangley Rd to Green Valley Trail near SE Green Valley Rd. Preferred alignment utilizes Soos Creek Valley. Interim alignment uses alternative in-road and off-road segments. Paved	Outside UGA	Programmed	4.6	16.1	23.0
61	TP-2	Tolt Pipeline Trail - Trail Paving	Regional Trail Redevelopment	Project would pave the existing Tolt Pipeline Trail alignment creating a paved and soft surface trail. Would be completed with approval from SPU. Project would likely be completed in phases from west to east starting at Norway Hill or in segments with greatest use potential.	Part in UGA, connects UGAs	Update to Plan	10.4	36.4	52.0

REGIONAL TRAILS NEEDS REPORT
 Projects Listing Summary (July 2015)

Listing Number	RTNR Identification Number	Project Title	Project Type	Comment/Status	UGA Relationship	Regional Transportation Plan Status ⁽¹⁾	Approximate Distance (Miles)	Prelim. Total Cost Est. (Low) (2015 - \$M) ⁽²⁾⁽³⁾	Prelim. Total Cost Est. (High) (2015 - \$M) ⁽²⁾⁽³⁾
62	SNO-3	Snoqualmie Valley Trail Paving - SnoCo boundary to Rattlesnake Lake	Regional Trail Redevelopment	Project would create a paved and soft surface trail over the length of the existing Snoqualmie Valley Trail from Snohomish County line north of Duvall to ((Rattlesnake)) Rattlesnake Lake southeast of North Bend to create a fully multi-use facility. Project may be completed in phases.	Part in UGA	Update to Plan	34.2	119.7	171.0
63	CR-2	Cedar River Trail - Landsburg to Cedar Falls ⁽⁷⁾	Regional Trail	Potential project would develop a new paved and soft surface trail between Cedar River Trail at Landsburg and Snoqualmie Valley Trail at Rattlesnake Lake. Project would enter SPU's Cedar River Watershed. As a result, a change in current land use would be necessary before project could be undertaken.	Outside UGA	Unprogrammed	12.0	42.0	60.0
							66.2	231.7	331.0

	Approx. Distance	Low Estimate	High Estimate
RTS Legacy Projects	25.6	89.4	127.8
High Priority Non-Legacy Projects	24.3	116.6	163.1
Tier 3	48.0	170.9	242.7
Tier 4	27.2	90.1	130.3
Planned Long-Range Planned	43.9	155.7	221.2
Planned	66.2	231.7	331.0
Total All Projects (Miles)(\$M)	235.2	854.4	1,216.1

Table Notes

1. Project current status in Transportation 2040 (PSRC).
2. Preliminary total project cost estimates at \$3.5M to \$5M per unit mile paved trail completed. May not include costs of at-grade intersection improvements (e.g., signalization) or grade-separated facilities (e.g., bridges or tunnels). Cost estimates include construction plus design, permitting, mitigation, administration, and other soft costs. Estimates are subject to revision based on additional information.
3. Preliminary total project cost estimates range at \$2.8M to \$4.24M per unit mile soft-surface (gravel aggregate) completed. May not include costs of at-grade intersection improvements (e.g., signalization) or grade-separated facilities (e.g., bridges or tunnels). Cost estimates include construction plus design, permitting, mitigation, administration, and other soft costs. Estimates are subject to revision based on additional information.
4. Estimate based on most current project scoping.
5. Mobility Connections estimated at \$1.0M - \$2.0M per project.
6. Estimate based on continuation of existing project.
7. The connection would utilize an alignment through Seattle's Cedar River Watershed and is not feasible at this time due to water resource security issues. A change in use by the City of Seattle would necessarily predate the development of such a regional trail facility.
8. Project prioritization is based on Parks' understanding of each project's connectivity, aesthetics/scenic value, timing or relationship to other projects, geographical equity, public support, and expectations for urban center connections/equity and social justice.

C. For More Information

Contact the Department of Parks and Natural Resources at 206-296-0100.

10. Eastside BNSF Trails appear in this listing but have not been prioritized. No cost estimates have been determined.

**Attachment H to Proposed Ordinance 2016-0155
Technical Appendix D to 2016 Comprehensive Plan**



King County

2016
King County Comprehensive Plan Update

TECHNICAL APPENDIX D
**GROWTH TARGETS AND THE URBAN
GROWTH AREA**

Technical Appendix D

Growth Targets and the Urban Growth Area

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I. Abstract

This appendix provides an analysis of growth trends in order to review the size and location of the King County Urban Growth Area (UGA). The appendix discusses the factors that contribute to review of the drawing of the UGA to accommodate projected population growth by 2022 pursuant to the state Growth Management Act (GMA). The relevant information for this study came from reports of the various technical committees assigned to provide data for the UGA, the Countywide Planning Policies, the Environmental Impact Statements of the Countywide Planning Policies and the King County Comprehensive Plan, the Buildable Lands amendment to the GMA, the *VISION 2040* plan of the Puget Sound Regional Council, and a review of the work of other jurisdictions developing similar policies throughout the country.

Appendix D was originally prepared in 1994 and updated in 2004, 2008 and 2012. This Appendix D-2016 supplements the original with new information. The analysis was updated in 2004 and 2008 to reflect four changes since 1994:

- Growth of population, housing units and jobs in the years since 1994;
- New population forecasts prepared by Washington State in early 2002 and 2007;
- The King County Buildable Lands Report, completed in 2002 and 2007 pursuant to the 1997 Buildable Lands amendment to the GMA; and
- New principles for allocating growth, specifically that each jurisdiction accommodate a share of the forecasted growth and that population and job growth should be in balance.

This 2016 Appendix incorporates the original Appendix D by reference, but does not address issues already covered by the original, such as delineation of the UGA. Therefore, it supplements but does not replace Appendix D. This revised Appendix describes modifications to the assumptions and methodology used to extend the original growth targets beyond 2012.

In 2002, 2007 and 2014, King County and its cities compiled land supply, land capacity and density data and submitted an evaluation report under the Buildable Lands amendment to the GMA. This report contained current measures of land capacity, revised to represent adopted plans and zoning throughout King County's UGA. This updated, more accurate land Supply information was combined with the updated land Demand information from State forecasts, in order to review the size and adequacy of the UGA.

The King County UGA is sized to adequately accommodate projected growth while also accounting for unpredictable circumstances that could alter the calculated supply of buildable land or the number of households needed to accommodate projected population growth. The location of the UGA takes in areas of the County that already have urban services or have solid commitments for urban services, and as a result, would be inconsistent with the criteria for rural land. The most recent Buildable Lands information, completed in 2007 and updated in 2014, affirms the adequacy of the existing UGA to accommodate all of the county's projected growth through 2031 ((22)) and beyond. This is true both for the entire Urban Growth Area and for the unincorporated portions of the UGA.

In 2015, the state Department of Commerce acknowledged that the 2012 King County Comprehensive Plan satisfies the GMA requirement for a 2015 plan update, including the growth targets contained in the 2012 Comprehensive Plan that allocate housing and job growth through 2031. As such, the 2016 Update is subject to the rules applicable to an annual comprehensive plan amendment. The GMA does not require the county to complete another comprehensive plan update until 2023.

II. Background

The Countywide Planning Policies established a framework Urban Growth Area (UGA) for King County. King County designated a final UGA in its 1994 Comprehensive Plan based on this framework. Each city within King County is responsible for determining, through its comprehensive plan, land use within its borders, including accommodating the broad range of residential and nonresidential uses associated with urban growth. King County is responsible for establishing land use in the unincorporated portion of the UGA through its comprehensive plan.

Key factors used in setting the UGA include population forecasts, growth targets, and land capacity. **Population forecasts** are predictions about future behavior based on past trends. **Growth targets** are a jurisdiction's policy statement on how many net new housing units it intends to accommodate in the future based on population forecasts and the expected size of the average household. **Land capacity** is derived from an estimate of vacant land plus the redevelopment potential of land already partially developed or underutilized. **Discount factors** are applied to the estimate of land capacity to account for probable constraints to actually developing the land.

Forecasts are useful as an indicator of the potential future demand for land. Targets follow the development of specific goals and objectives for future growth and, under the GMA, they must be supported by commitment of funds, incentives, and regulations. Discounted capacity is a realistic estimate of how much growth may be accommodated in a geographic area.

Under the GMA, each county is required to accommodate 20 years of population growth. Counties are to establish UGAs "within which urban growth shall be encouraged and outside of which growth can occur only if it is not urban in nature" (RCW 36.70A.110(1)). Further based on OFM population projections, the GMA requires the UGA to "include areas and densities sufficient to permit the urban growth that is projected to occur in the county for the succeeding twenty-year period" (RCW 36.70A.110(2)). As part of the county's planning, it must accommodate housing and employment growth targets, including institutional and other nonresidential uses. As specified in RCW 36.70A.110(1), all cities are places for urban growth and, by law, must be included within the Countywide UGA. In addition, unincorporated areas may be included within the UGA "only if such territory already is characterized by urban growth or is adjacent to territory already characterized by urban growth". Each UGA also shall include greenbelt and open space areas (RCW 36.70A.110(2)).

Several GMA goals, such as those dealing with affordable housing, economic development, open space, recreation, and the environment, have an important bearing on these UGA requirements. These goals need to be balanced with those which encourage efficient urban growth and discourage urban sprawl.

The so-called "concurrency" goal for public facilities and services directs jurisdictions to ensure that "those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy without decreasing current service levels below locally established minimum standards" (RCW 36.70A.020(12)). Ensuring adequate land for industrial and commercial development and providing enough land to allow for choices in where people live will help advance economic development and maintain housing affordability. If the UGA is adequately sized, then pressures to develop on environmentally constrained land and on areas set-aside for open space are reduced. These factors must be balanced with the goal of reducing urban sprawl when determining the UGA.

III. Size of the Urban Growth Area

A. Growth to be Accommodated

1. Projected Countywide Household Growth

The Growth Management Act (GMA), adopted in 1990, requires Washington State counties to accommodate forecasted growth, to allocate that growth among their jurisdictions and to designate Urban and Rural areas. In King County, the allocation takes the form of “growth targets” for household/housing unit and job growth over a 20-year or 25-year Growth Management period. The first set of growth targets was enacted by King County through the Countywide Planning Policies in 1994. For the period 1992 to 2012, the targets specified a range of household and job growth each city and the unincorporated area were expected to accommodate. These targets allowed King County jurisdictions collectively to accommodate the 293,100 additional people forecasted for the period 1992 to 2012. The growth targets were updated in 2002 to guide growth for the period 2001 – 2022, and again in 2010 for the 2006 – 2031 planning horizon.

The GMA requires a ten-year update of Growth Management plans. During the period since the first set of targets were adopted, six new cities have incorporated in King County, and other cities have annexed large areas. By the time of the 2000 Census, King County had 173,000 more residents than in 1994. Furthermore, in 2002 and again in 2007, the Washington State Office of Financial Management (OFM) released a new set of population forecasts for whole counties, out to 2030.

It is important to note that the 2002, 2007 and 2012 OFM forecasts ratified the accuracy of earlier forecasts, of the adopted targets, and of the 1994 delineation of the Urban Growth Area (UGA). King County population growth since 1994 has tracked well against OFM’s forecasts which were the basis for the 1994 Comprehensive Plan targets and UGA. Therefore, no radical change to the targets is necessary – only an extension to accommodate additional years of growth.

Land use decisions are more closely dependent on the expected growth in households and dwelling units than on simple population forecasts. As a result, the OFM population forecast of an additional 469,000 people between 2006 and 2031 must be translated into a number of additional households in order to be meaningful for purposes of land use planning. Household size is an estimate of the number of people expected to live in each dwelling unit and is used to calculate how many new households will be needed to accommodate the expected increase in population. The paragraphs below explain how analysis of forecasts and household sizes resulted in the translation of the OFM population forecast into new household and job growth targets for 2031.

The Growth Management Planning Council (GMPC), made up of elected officials representing King County jurisdictions, appointed a committee of planning directors and other city and county staff to plan methodology and develop new targets, for both the 2002 and post-2007 target updates. The committee’s methodology grew out of two principles: that each jurisdiction would take a share of the County’s required growth, and there would be an earnest attempt to balance household and job growth in broad clusters of jurisdictions.

The methodology began by removing “group quarters” (institutional) population from consideration, since such population does not constitute households living in housing units. The methodology also removed Rural areas from consideration as locations of growth. This assumed Rural areas will gain only a small share of total household growth – four percent of total growth, later reduced to three percent – consistent with recent trends. Remaining steps of the methodology focused on the Urban Growth Area, in order to accommodate the projected growth there. See Summary of Methodology below.

Table A	Population 2006	Population 2031	25-year Change	Notes
Total Population	1,835,000	2,304,300	+ 469,300	a.
less Group Qtrs.	- 38,000	- 57,500	- 19,500	b.
= Pop. in Hholds	1,797,000	2,246,800	449,800	
divided by HHsize	2.36	2.26	-0.19	c.
= households	761,400	994,000	+ 232,600	
+ vacancy rate	4.8%	4.3%		d.
= housing units	799,800	1,038,400	+ 238,600	
less Rural	48,000	53,400	5,400	e.
= Urban housg units	751,800	985,000	+ 233,200	f.
Notes:				
a. Source of countywide population forecast: OFM Dec 2007, and Vision 2040.				
b. Group quarters (institutional population) forecasted to increase approx 50%.				
c. Average household size forecasted to decrease moderately.				
d. Vacancy rates, currently high, forecasted to return to historical averages.				
e. Rural areas are projected to take 3% of countywide population growth				
f. Urban housing units to allocate: + 233,200 housing units over 25 years 2006-2031.				
All numbers are rounded.				
Sources: US Census, OFM, King County Targets Committee, and King County PSB.				

2. Allocation of Population, Housing and Job Growth within King County

New OFM and PSRC Forecasts and New Policy Guidance from Vision 2040

Washington State’s Office of Financial Management released new population projections in 2007, which showed King County growing at a faster rate than previously forecasted. OFM projected one-third more growth by 2022 than its 2002 forecast had predicted. Overall, for the extended planning period, the county is expected to grow by about 469,000 people between 2006 and 2031 to a total population of 2.3 million. OFM provides a range of forecasts from high to low, but King County has used the medium or what OFM deems the “most likely” forecast number. The medium forecast for King County in 2030 is about 2,263,000 persons.

Employment forecasts released by PSRC in 2006 showed growth in the county, over this same 25-year period, of about 490,000 jobs to a total of about 1.7 million jobs in 2031. This is also an increase over the earlier employment targets which, over a somewhat shorter period, anticipated a 22-year increase of 289,000 jobs in King County.

In 2008, the Puget Sound Regional Council adopted *VISION 2040*, a growth management, transportation, and economic development strategy for the 4-county region. With *VISION 2040*, the PSRC has amended its Multicounty Planning Policies (MPPs) to address coordinated action around a range of policy areas, including development patterns and the distribution of growth. King County also updated the Countywide Planning Policies in 2012 to address the policy guidance contained in the newly updated MPPs.

VISION 2040 also contains a Regional Growth Strategy that provides substantive guidance for planning for the roughly 1.7 million additional people and 1.2 million additional jobs expected in the region between 2000 and 2040. The strategy retains much of the discretion that counties and cities have in setting local targets, while calling for broad shifts in where growth locates within the region. It establishes six clusters of jurisdictions called “regional geographies” – four types of cities defined by size and status in the region and two unincorporated types, urban and rural.¹ In comparison to previous trends, the Strategy calls for:

- **Increasing** the amount of growth targeted to cities that contain regionally designated urban centers (to include both **Metropolitan Cities** and **Core Cities**)
- **Increasing** the amount of growth targeted to other **Larger Cities**
- **Decreasing** the amount of growth targeted to **Urban unincorporated areas**, **Rural** designated unincorporated areas, and to many **Small Cities**
- Achieving a greater **jobs-housing balance** within the region by shifting projected ((pəp-
lætɪən)) population growth into King County and shifting forecasted employment growth out of King County.

New Growth Targets, 2006 – 2031

To guide the required update of comprehensive plans, the GMPC approved a new set of housing and job growth targets for each King County jurisdiction, covering the 25-year period 2006 – 2031. These were adopted in 2010, re-adopted with the Countywide Planning Policies in 2012, and are still in effect. The new updates to the targets, based on the 2007 population projections from OFM and the requirements and policy framework contained in *VISION 2040*, provide substantive guidance to cities so they can update their 20-year comprehensive plans. New growth targets extend the countywide planning period horizon to 2031, 20 years beyond the originally-slated 2011 comprehensive plan update deadline. The new targets are organized by the Regional Geography categories in *VISION 2040*. This new geography *replaces* the 4 planning subareas—SeaShore, East County, South County, and Rural Cities—which provided a framework for allocating the

¹ Under *VISION 2040*, King County jurisdictions are clustered in six “regional geographies”:

- Metropolitan Cities: Seattle, Bellevue
- Core Suburban Cities: Auburn, Bothell, Burien, Federal Way, Kent, Kirkland, Redmond, Renton, SeaTac, Tukwila
- Larger Suburban Cities: Des Moines, Issaquah, Kenmore, Maple Valley, Mercer Island, Sammamish, Shoreline, Woodinville
- Small Cities: Algona, Beaux Arts, Black Diamond, Carnation, Clyde Hill, Covington, Duvall, Enumclaw, Hunts Point, Lake Forest Park, Medina, Milton, Newcastle, Normandy Park, North Bend, Pacific, Skykomish, Snoqualmie, Yarrow Point
- Urban Unincorporated King County: all unincorporated within Urban Growth Area
- Rural Unincorporated King County: rural- and resource-designated areas outside UGA.

targets in the earlier CPPs. Where the previous targets foster jobs-housing balance in the 4 subareas, the new target approach aims to achieve improved balance at the county level and within jurisdictions classified by Regional Geographies.

These new growth targets for King County move toward achieving the desired pattern of growth laid out in *VISION 2040*, while recognizing the long-term nature of the regional land use goals and the many challenges involved in moving away from past growth patterns.

Summary of Methodology

In 2009, a committee of policy and technical staff from the county and cities convened to develop updated growth targets as a collaborative effort. The committee prepared a set of draft working targets for large areas—the county as a whole and Regional Geographies—then began the process of allocating the Regional Geography growth numbers to each individual jurisdiction. The methodology used to generate the draft targets included the following steps and factors:

- **Establish target time frame.** The year 2031 was established as the target horizon year, giving cities a full 20-year planning period from the original GMA update deadline of 2011. The year 2006 was used as a base year because of the availability of complete data, including Buildable Lands estimates. Notably, the proposed target ranges did not account for annexations since 2006.
- **Establish county total for population growth.** Assuming the 4-county region as a whole plans for the mid-range projection of population, King County gets 42% of the region-wide population growth through 2031, consistent with *VISION 2040*. The result: growth of 567,000 people between 2000 and 2031 to a total population of 2,304,000. This number represents a small shift of population to King County from other counties, compared with OFM projections.
- **Establish county total for job growth.** Using the PSRC forecast of employment for the region, King County gets 58% of the regional employment growth through 2031, consistent with *VISION 2040*. The result: growth of 441,000 jobs between 2000 and 2031 to a total of 1,637,000 jobs. This number represents a shift of about 50,000 jobs out of King County to the other three counties in the region compared with earlier forecasts.
- **Allocate population to Regional Geographies** within the county, based closely on *VISION 2040*, but also accounting for factors such as recent growth trends and anticipated annexation of major PAAs.
- **Convert population to total 2031 housing units.** Housing units are the element that jurisdictions can regulate and monitor. Also, *VISION 2040* calls for housing unit targets for each regional geography and jurisdiction. This is a change from the previous King County CPPs, which set targets for households. Total housing stock needed in 2031 was calculated based on the following assumptions:
 - assumed group quarter (institutions) rates, 2.5% of the year 2031 population;
 - assumed future average household size, 2.26 persons per household, a decline of 0.14 persons per household from the 2000 Census;
 - assumed vacancy rates to convert households into housing units, a countywide average of 4.3%.

Each of the assumptions was adjusted to fit the demographic and housing market differences between Regional Geographies.

- **Calculate housing growth need within Regional Geographies.** As a final step, the base year (2006) housing stock was subtracted from the total 2031 units to determine the net additional new housing units needed by 2031 in each Regional Geography.
- **Allocate employment growth to Regional Geographies** within the county, based closely on *VISION 2040*, and also accounting for employment changes since 2000.

The results of this process are shown in the tables below.

Table 1: Population by County

	Population	Population	Reg'l Growth Strategy	Population Change
Year:	<i>2000</i>	<i>2030</i>	<i>2000-2040</i>	<i>2000-2031</i>
King	1,737,000	2,263,000	42.3%	567,360
Snohomish	606,000	950,100	26.1%	349,510
Pierce	700,800	1,050,900	23.0%	307,970
Kitsap	232,000	314,600	8.7%	116,760
Region	3,275,800	4,578,600	100%	1,341,600

Table 2: Jobs by County

	Jobs	Jobs	Share of Job Growth	Job Change
Year:	<i>2000</i>	<i>2030</i>	<i>2000-2040</i>	<i>2000-2031</i>
King	1,196,043	1,664,780	57.7%	441,372
Snohomish	217,673	350,001	20.1%	153,754
Pierce	261,695	367,248	17.1%	130,805
Kitsap	84,632	115,649	5.1%	39,012
Region	1,760,043	2,497,678	100%	764,943

Table 3: Population and Housing by Regional Geography in King County

	Share of Pop Growth	25-Year Pop. Change	Group Quarters Share	Persons per Household	Vacancy Rate	Housing Units Needed
Regional Geography			<i>2031</i>	<i>2031</i>	<i>2031</i>	<i>2006-2031</i>
Metro Cities	44%	206,100	4.5%	2.035	4.7%	103,100
Core Sub Cities	30%	139,700	1.5%	2.260	4.4%	72,900
Larger Sub Cities	13%	62,200	1.9%	2.450	3.6%	29,000
Smaller Sub Cities	5%	22,700	0.5%	2.540	3.0%	10,800
Uninc Urban	5%	25,300	0.5%	2.600	3.0%	18,100
Rural	3%	13,000	0.5%	2.800	5.0%	5,400
King County Total	100%	469,000	2.5%	2.26	4.3%	239,200
UGA only:						233,800

Table 4: Jobs by Regional Geography in King County

Data:	Share of Future Job Growth	Total New Jobs	Adjusted for 2000-06 growth	Total New Jobs	Share of Job Growth
Year:	2000-2040	2000-2031		2006-2031	2006-2031
Metro Cities	45.2%	199,700	-	199,700	46.5%
Core Sub Cities	37.8%	166,700	-	166,700	38.8%
Larger Sub Cities	10.4%	45,700	3,000	42,700	9.9%
Smaller Sub Cities	3.2%	14,000	4,400	9,600	2.2%
Uninc Urban	2.7%	12,100	1,500	10,600	2.5%
Rural	0.7%	3,200	3,600	-	-
King County Total	100.0%	441,400			
UGA Only:		438,200		429,300	100.0%

Allocate housing units and jobs to individual jurisdictions. Within each Regional Geography, staff met to develop a proposed range of draft targets for housing and jobs for each jurisdiction. Criteria that were used to inform the allocation included the following:

- Countywide Planning Policies, including previous targets for the 2001-2022 planning period
- Data from the 2007 Buildable Lands Report, including development trends and land capacity
- Current population, jobs, and land area
- Local policies, plans, zoning and other regulations
- Local factors, such as large planned developments, and opportunities and constraints for future residential and commercial development
- “Fair share” distribution of the responsibility to accommodate future growth
- Location within the county.

The results of this process ultimately became Table DP-1, which was reproduced on page D-14 of Technical Appendix D to the 2012 Comprehensive Plan.

In November 2015, the GMPC approved a technical adjustment to Table DP-1 to account for recent annexations to Bellevue, Bothell, Sammamish and Tukwila. Annexations shift the potential-annexation-area target from unincorporated King County to the annexing city. The revised Table DP-1, effective through January 2, 2016, is reproduced on page D-((15))14 of this Technical Appendix.

See table of adjusted 2006-2031 targets on page D-15. The table shows 25-year household growth targets for each city and for unincorporated areas within the UGA. Unincorporated Urban targets add to only 11,140 housing units, less than 5% of the ((Urban area)) urban area total housing target. Most of the Urban growth is expected to occur in cities. In addition, the adopted targets provide for annexation of the remaining Urban area by specifying the number of households in potential annexation areas (PAAs). These numbers are shown as “PAA housing target” in the table. As cities annex territory, the responsibility to accommodate that specific share of growth goes with the annexation, and shifts from unincorporated target into a city target. Before 2031, all of King County is expected to be within city limits except for designated Rural and Resource areas.

In 2012, Washington State OFM released a new set of population forecasts. The 2012 forecast was so similar to OFM's 2007 forecast (within 1% in 2030) that revision of the targets was deemed unnecessary, given GMA guidance to plan within a broad range of forecasted population growth.

3. Allocation of Projected Household Growth to Cities and Unincorporated King County

The ~~((Urban-area))~~ urban area 2006-31 growth target of 233,000 housing units was allocated to each of King County's 39 cities and to the County's Urban unincorporated area by the Countywide Planning Policies.² These targets are *estimates* of the number of new housing units that jurisdictions expect to receive and plan for during the period. The targets for each of the cities and the unincorporated area are intended as a guide with some flexibility to reflect the limited capability of individual jurisdictions to determine their precise levels of growth. It is essential that each jurisdiction adopt policies and regulations that allow the jurisdiction to accommodate that targeted amount.

The allocation of households to jurisdictions is connected to the allocation of estimated future jobs. Although not required by the GMA, the Countywide Planning Policies included a 25-year employment target in addition to the housing target and also allocated the employment target to the cities and unincorporated King County. The Countywide employment growth target of 429,000 (Table 4) was based on job forecasts prepared by the Puget Sound Regional Council and was allocated to the cities and the county based upon factors listed above. The cities' housing targets are tied in part to their employment targets because of the relationship between household and employment growth and the need to support Urban Centers while balancing local employment opportunities in activity centers and neighborhoods in the urban area.

Targets represent a commitment by the jurisdiction to accommodate growth. The Countywide Planning Policies require jurisdictions to plan for their targeted growth and to adopt a regulatory framework and the necessary infrastructure funding to achieve the targeted growth. The way each jurisdiction achieves its targets is within its discretion. It is the responsibility of each jurisdiction to determine how best to plan for its growth targets. The jurisdictions impose a variety of regulatory measures, appropriate to their area, to achieve their goals. It is the responsibility of King County to implement its growth targets through zoning decisions and other policies in the unincorporated areas.

Under this methodology, new cities are treated the same way as annexations. In this way, the entire Urban unincorporated allocation can be distributed among the annexing and new cities as they absorb unincorporated communities over time. The Rural target allocation remains in unincorporated King County because it is not annexed or incorporated. Annexations to six Rural Cities are not subject to these adjustments because their target allocation already includes their UGA expansion area.

² King County Countywide Planning Policies, Policy DP-12. King County Council Ordinance No. 17486, December 3, 2012.

B. Land Capacity in the UGA

1. Countywide

King County is required by the GMA to ensure sufficient land is available to accommodate the expected number of households within the planning horizon. Most of the anticipated growth will occur in the UGA, including cities and unincorporated Urban areas. Estimating land capacity involves ~~((much-))~~ more than ~~((merely-))~~ adding up all vacant and potentially redevelopable land in the county. Land capacity is an estimate of the amount of buildable land that is likely to be actually developable; that means taking the base, or raw, number and subtracting out land that is unbuildable due to environmental and other constraints.

A 1997 amendment to the GMA required King County and its cities to measure "Buildable Land" capacity, to verify that the Urban Growth Area has sufficient land capacity to accommodate our targeted growth. The Buildable Lands amendment requires rigorous analysis of land capacity, using a methodology ensuring that the capacity measurement is realistic, not theoretical. The factors for calculating land capacity must reflect the actual densities of development achieved by the jurisdiction in the previous five years. King County and its cities followed these requirements, fully discounting for critical areas, future rights-of-way, public purpose lands and a market factor. The market factor recognizes that, for market reasons, some buildable lands may not be developed during the time horizon of the analysis.

In 2007, using this methodology, King County jurisdictions conducted an updated inventory of land supply (measured in acres) and land capacity (measured in housing units and jobs that can be accommodated) as of 2006. The 2007 Buildable Lands Evaluation Report (BLR), published in September, 2007, concluded that the King County UGA contains more than 21,900 acres of land suitable for residential growth. The UGA can accommodate more than 289,000 new housing units. This capacity is sufficient to absorb the 2006-2031 target of 233,000 new housing units. Furthermore, each of the Regional Geographies had sufficient capacity to accommodate their growth targets.

The same exacting methodology was carried out in the most recent buildable lands analysis. The 2014 Buildable Lands Report found a similar surplus of capacity in the King County UGA. As of 2012, the entire King County UGA has an estimated residential capacity of 417,300 additional housing units, more than twice the remaining target of 177,600 housing units. Each of the Regional Geographies has sufficient capacity to absorb targeted growth. The 2014 BLR also reported that the UGA has capacity for more than 658,000 jobs, 60% more than the remaining job target of 410,600 jobs. All the city Regional Geographies have a surplus of job capacity. These are measures of current capacity, based on plans and zoning currently (2012) in place, estimated using the rigorous methodology and criteria in the Buildable Lands amendment, RCW 36.70A.215. The 2007 and 2014 Buildable Lands Reports affirm that there exists sufficient capacity in the King County UGA to accommodate the entire county's growth forecast through 2031. This includes capacity for residential uses and non-residential uses including institutional, commercial and industrial uses. Based on this updated information, it is clear that no change to the UGA is necessary.

2. Unincorporated King County

The Buildable Lands Evaluation Reports measured land capacity in each of King County's five Urban Regional Geographies and by individual jurisdiction. Detailed information is available from those Reports, incorporated here by reference.

(see <http://your.kingcounty.gov/budget/buildland/bldInd07.htm> and

((<http://kingcounty.gov/depts/permitting-environmental-review/codes/2014%20KC%20Buildable%20Lands%20Report.aspx>))

<http://www.kingcounty.gov/depts/permitting-environmental-review/codes/2014-KC-Buildable-Lands-Report.aspx>).

Unincorporated Urban King County as a whole can accommodate more than 12,700 new housing units, only three percent of the Urban King County total, but sufficient to accommodate the remaining unincorporated Urban target of 7,970 housing units. As unincorporated Urban areas are annexed to cities, the associated targets shift to the city, so that by the end of the planning period, the unincorporated Urban target will dwindle to near zero.

The 2014 Buildable Lands Report measured an employment capacity in unincorporated King County of just over 6,900 jobs, slightly less than the remaining urban unincorporated target of 7,700 jobs. Under the GMA, VISION 2040 and the Countywide Planning Policies, cities are designated and intended to accommodate almost all employment growth in the county. Prior to planning under the GMA, unincorporated King County absorbed a large share of the county's residential and job growth. Since beginning to plan under the GMA, the county's growth has shifted almost entirely into the cities. However, a commensurate share of urban unincorporated growth targets did not shift into the cities. Annexations transferred more capacity than target into annexing cities, leaving residual unincorporated targets that are out of balance with actual capacity. Bearing in mind that the UGA as a whole does have sufficient capacity for commercial and industrial growth, the small shortfall in urban unincorporated job capacity is a technical issue that will be addressed as further annexations occur.

IV. Conclusion

This Appendix provides updates to the Appendix D of the 2012 Comprehensive Plan. In 2015, the state Department of Commerce acknowledged that the 2012 Comprehensive Plan satisfies the GMA requirement for King County to update a comprehensive plan by June 2015. The Countywide Planning Policies, also adopted in 2012, affirmed the growth targets for King County and its cities for the period 2006 – 2031. Those targets remain in effect, and they guide cities and the county in preparing comprehensive plan updates. Therefore, this Appendix augments the 2012 Appendix D to explain how analysis of projected growth and capacity in the UGA led to the current 2006 – 2031 growth targets.

King County's first set of growth targets, covering the period from 1992 – 2012, was based on Washington State OFM's 1992 population forecast. The county's actual population growth tracked well against the 1992 forecast. In 2002, 2007 and 2012, OFM published revised forecasts which were used to update growth targets to cover the 2001 – 2022 planning period, then the 2006 – 2031 period. King County's population growth has continued to track the OFM predictions well.

In 2007, OFM released a population forecast to 2030 that formed the basis for updating King County growth targets in 2009. King County officials responded with an extensive process to update the growth targets again, based on the 2007 forecast. This update was conducted as part

of the revisions made to the Countywide Planning Policies, which were recommended by the Growth Management Planning Council, adopted by King County in 2012, and ratified by the cities in 2013. The update also incorporated guidance from the Puget Sound Regional Council's *VISION 2040* plan, which calls for focusing housing and job growth into cities with major Urban Centers. King County's current growth targets, covering the period 2006 – 2031, were restructured from a subarea orientation to fit six "Regional Geographies" outlined by *VISION 2040*. In compliance with *VISION 2040*, these new targets direct most growth (74% of housing, 85% of jobs) into two "Metropolitan Cities" and 10 "Core Suburban Cities", each with a major Urban Center. Within unincorporated King County, the targets provide for modest growth in Urban areas and very limited growth in Rural and Resource areas.

Data from the 2010 US Census confirm that King County's population growth comports with OFM's 2007 forecast. Land capacity data from the 2007 and 2014 Buildable Lands Report, together with updated development plans of the county's major cities, confirm that King County's Urban Growth Area continues to be appropriately sized in order to accommodate growth expected through the year 2031, and that the UGA has sufficient capacity to accommodate forecasted residential and non-residential growth including institutional, commercial and industrial uses. However, in accordance with both county's Comprehensive Plan policies and the Countywide Planning Policies, the Urban Growth Area may be adjusted if a countywide analysis determines that the current Urban Growth Area is insufficient in size and additional land is needed to accommodate the housing and employment growth targets, including institutional and other non-residential uses, and there are no other reasonable measures, such as increasing density or rezoning existing urban land, that would avoid the need to expand the Urban Growth Area.

King County Growth Targets Update: Revised Table DP-1
Table for inclusion in Countywide Planning Policies, June 2011 –adjusted 2015

Regional Geography City / Subarea	Housing Target	PAA Housing Target	Employment Target	PAA Emp. Target
	Net New Units	Net New Units	Net New Jobs	Net New Jobs
	2006-2031	2006-2031	2006-2031	2006-2031
Metropolitan Cities				
Bellevue	17,290		53,000	
Seattle	86,000		146,700	
Total	103,290		199,700	
Core Cities				
Auburn	9,620		19,350	--
Bothell	3,810	810	5,000	0
Burien	4,440		5,610	
Federal Way	8,100	2,390	12,300	290
Kent	9,270	90	13,280	210
Kirkland	8,570	0	20,850	0
Redmond	10,200	640	23,000	--
Renton	14,835	3,895	29,000	470
SeaTac	5,800		25,300	
Tukwila	4,850	50	17,550	0
Total	79,495		170,590	

Regional Geography City / Subarea	Housing Target	PAA Housing Target	Employment Target	PAA Emp. Target
	Net New Units	Net New Units	Net New Jobs	Net New Jobs
	2006-2031	2006-2031	2006-2031	2006-2031
Larger Cities				
Des Moines	3,000		5,000	
Issaquah	5,750	110	20,000	
Kenmore	3,500		3,000	
Maple Valley**	1,800	1,060	2,000	
Mercer Island	2,000		1,000	
Sammamish	4,180	350	1,800	
Shoreline	5,000		5,000	
Woodinville	3,000		5,000	
Total	28,230		42,800	
Small Cities				
Algona	190		210	
Beaux Arts	3		3	
Black Diamond	1,900		1,050	
Carnation	330		370	
Clyde Hill	10		--	
Covington	1,470		1,320	
Duvall	1,140		840	
Enumclaw	1,425		735	
Hunts Point	1		--	
Lake Forest Park	475		210	
Medina	19		--	
Milton	50	90	160	
Newcastle	1,200		735	
Normandy Park	120		65	
North Bend	665		1,050	
Pacific	285	135	370	
Skykomish	10		--	
Snoqualmie	1,615		1,050	
Yarrow Point	14		--	
Total	10,922		8,168	
Urban Unincorporated				
Potential Annexation Areas	8,760		970	
North Highline	820		2,170	
Bear Creek Urban Planned Dev	910		3,580	
Unclaimed Urban Unincorp.	650		90	
Total	11,140		6,810	
King County UGA Total	233,077		428,068	

Regional Geography City / Subarea	Housing Target	PAA Housing Target	Employment Target	PAA Emp. Target
	Net New Units	Net New Units	Net New Jobs	Net New Jobs
	2006-2031	2006-2031	2006-2031	2006-2031

* King County Growth Management Planning Council, adopted October 2009 and ratified by cities in 2010. These were re-adopted with the countywide planning policies in 2012 and ratified in 2013.

Targets base year is 2006. PAA / city targets have been adjusted to reflect annexations through 2016.

** Target for Maple Valley PAA is contingent on approval of city-county joint plan for Summit Place.

**Attachment I to Proposed Ordinance 2016-0155
Technical Appendix R to 2016 Comprehensive Plan**



King County

2016

King County Comprehensive Plan Update

TECHNICAL APPENDIX R:

**PUBLIC OUTREACH FOR THE
DEVELOPMENT OF THE 2016
COMPREHENSIVE PLAN**

~~((September 1))~~ November 22, 2016

Overview

The **2016 Comprehensive Plan Update** included a strong and on-going public engagement process; the process is summarized below by phases.

Phase 1: Scoping and Development of Public Review Draft. This process included the following components:

- Meetings with community groups, interested parties, County Commissions, the Planning Directors groups, and others in multiple stages of the update process in 2015.

• King County Planning Directors (2/26) – 30 attendees	• Four Creeks/Tiger Mountain CSA Open House (5/12) – 40 attendees
• Greater Maple Valley UAC (3/1) – 10 attendees	• Maple Valley CSA Open House (5/19) – 70 attendees
• Skyway-West Hill Technical Advisory Committee (3/13) – 15 attendees	• West Hill/Skyway CSA Open House (5/21) – 35 attendees
• Four Creeks/Tiger Mountain CSA (3/18) – 10 attendees	• SE King County/Green Valley CSA Open House (6/2) – 85 attendees
• Bear Creek / Sammamish CSA Open House (4/13) – 16 attendees	• Rural Forest Commission (7/9) – 15 attendees
• Snoqualmie Valley/NE King County CSA Open House (4/21) – 52 attendees	• Greater Maple Valley UAC (8/24) – 8 attendees
• North Highline/White Center CSA Open House (April 23) – 25 attendees	• Agricultural Commission (9/17) – 20 attendees
• Vashon-Maury Island CSA Open House (4/28) – 32 attendees	• King County Planning Directors (10/22) – 30 attendees
• Fairwood/Renton CSA Open House (5/5) – 55 attendees	• Rural Forest Commission (11/12) – 15 attendees

Approximately 560 residents and stakeholders attended these meetings.

- Stakeholders were informed that comments would be accepted throughout the process, rather than solely during public comment period. This led to a significant amount of early public comments which allowed some issues to be resolved and included in the Public Review Draft.
- Attended and presented at all of the Community Service Area Open Houses; these meetings allowed the Comprehensive Plan to be presented at high-level to a much wider audience. At these meetings, names were added to the email list.

- Updates to the Comprehensive Plan website to make commenting and joining an e-mail list easier; the email list grew to over 500 contacts.
- Distributed a series of "eNewsletters" that helped those on the e-mail list remained informed of milestones in the update process. This included every group listed in the Adopted Scope of Work through Motion 14351, all the email contacts from the 2012 Comprehensive Plan update list, contacts for community weekly newspapers, contacts provided by the Office of Equity and Social Justice in the Executive's Office, and others.

Phase 2: Development of Executive Recommended Plan. This process included the following components:

- Placed advertisements in community papers advertising Community Meetings; six community meetings were held and were attended by almost 300 participants in late 2015 and early 2016. Meetings were held as follows:

Vashon-Maury Island (Nov. 9) – 10 attendees	Snoqualmie Valley – Bear Creek – Sammamish Area (Dec. 2) –110 attendees
Four Creeks – Maple Valley (Nov. 17) – 15 attendees	Vashon-Maury Island (follow-up Meeting on Dec. 14) –40 attendees
West Hill / North Highline/ Urban Annexation Areas (Nov. 19) – 35 attendees	East Cougar Mountain Potential Annexation Area (Jan. 28) – 70 attendees

- Provided a 2 month public comment period between November 6, 2015 and January 6, 2016. This comment period was extended to solicit public comment on an Area Zoning and Land Study that began late in the process, and this comment period went from January 27 to February 3, 2016.
- During these periods, nearly 90 comment letters/emails/comment cards were submitted, containing hundreds of individual comments that were used in the development of the draft Plan.

Combined, over 850 stakeholders participated in the development of the Public Review Draft and Executive Recommended Plan for the 2016 King County Comprehensive Plan Update.

Phase 3: Council review of and updates to Executive Recommended Plan, and adoption of 2016 Comprehensive Plan. This process has included and/or is anticipated to include the following components:

- Distribution of newsletters to dedicated Comprehensive Plan email list ((644)649 subscribers as of ((August 29))November, 2016) to inform the public of Comprehensive Plan committee briefings, schedule updates, news, and public comment opportunities.
- Utilization of the Council's Comprehensive Plan website to provide:
 - Opportunity to sign-up for the Comprehensive Plan email list,
 - Ability to submit written online public testimony, and
 - Up-to-date information on the schedule, committee agendas and staff reports, news, proposed Comprehensive Plan and land use amendments, and public hearing notices.

- Issuance of press releases to media outlets to provide updates on public comment opportunities.
- Inclusion of Comprehensive Plan committee briefing dates and public comment opportunities in "Coming Up At Council" media email list (print, broadcast, and social media).
- Written communication with Docket proponents regarding public comment opportunities.
- Briefings with County Commissions and community groups, as requested.
- A public comment period from time of transmittal (March 1, 2016) through adoption (~~(((scheduled for)))~~December, 2016), including:
 - Receipt of written comments via letters, emails, or online testimony.
 - Verbal testimony in committee and before the full Council, as follows:

March 15 at Transportation, Economy and Environment Committee	June 28 at special Transportation, Economy and Environment Committee
April 5 at Transportation, Economy and Environment Committee	July 5 at Transportation, Economy and Environment Committee
April 6 at special Committee of the Whole evening Town Hall in Ravensdale	August 16 at Transportation, Economy and Environment Committee
May 3 at Transportation, Economy and Environment Committee	August 24 at special Transportation, Economy and Environment Committee
May 17 at Transportation, Economy and Environment Committee	September 6 ((((anticipated)))) at Transportation, Economy and Environment Committee
May 31 at Transportation, Economy and Environment Committee	September 20 ((((anticipated)))) at Transportation, Economy and Environment Committee
June 7 at Transportation, Economy and Environment Committee	November 28 ((((anticipated)))) publicly advertised formal public hearing at full Council
June 21 at Transportation, Economy and Environment Committee	

- Inclusion of received written comments in the published committee packets as part of the Comprehensive Plan staff reports.
- State Environmental Policy Act (SEPA) review and public comment period prior to final adoption at the full Council. (~~(((anticipated)))~~)
- Published advertisement in newspapers for formal public hearing prior to final adoption at full Council. (~~(((anticipated)))~~)
- Mailed notice of public hearing to property owners adjacent to parcels proposed for land use designation and zoning changes prior to final adoption at full Council. (~~(((anticipated)))~~)

KL Withdrew

18427

12

2

12/1/16
Amend to Amend 1 – Growth
Targets

cmj

Sponsor: Lambert

Proposed No.: 2016-0155

1 AMENDMENT TO AMENDMENT 1 TO PROPOSED ORDINANCE 2016-0155,
2 VERSION 2

3 In Amendment 1, in Attachment H, Technical Appendix D – Growth Targets and the
4 Urban Growth Area, dated November 21, 2016, beginning on page D-4, strike the second
5 paragraph, and insert:

6
7 "Key factors used in setting the UGA include population forecasts, growth targets, and
8 land capacity. **Population forecasts** are predictions about future behavior based on
9 past trends. **Growth targets** are a jurisdiction's policy statement on ~~((how many))~~ the
10 minimum number of net new housing units it intends to accommodate in the future
11 based on population forecasts and the expected size of the average **household**. **Land**
12 **capacity** is derived from an estimate of vacant land plus the redevelopment potential of
13 land already partially developed or underutilized. **Discount factors** are applied to the
14 estimate of land capacity to account for probable constraints to actually developing the
15 land."

16 **EFFECT:** *Would amend Amendment 1, in Technical Appendix D (Growth Targets*
17 *and the UGA), to express the intention that the growth targets set by the Growth*
18 *Management Planning Council would refer to a minimum rather than a maximum.*

R Dembowski -> AK# A-1

Adopted

as amended
by A-2

18427

12

A-1

12/2/16

Omnibus KCCP changes

cmj

Sponsor: Dembowski

Proposed No.: 2016-0155

1 **AMENDMENT TO ATTACHMENT A TO PROPOSED ORDINANCE 2016-0155,**

2 **VERSION 2**

3 **Beginning of the Attachment:**

✓ 4 Before the Table of Contents, insert the welcome letter, beginning "Dear King County
5 Resident:" attached on pages 4 and 5 of this amendment.

6

7 **Chapter 1, Regional Growth Management Planning:**

✓ 8 On page 1-6, on lines 172 to 184, delete policy RP-109, and insert revised policy RP-109
9 attached on page 6 of this amendment.

✓ 10 On page 1-9, beginning on line 297, strike lines 297 through 304, and insert revised
11 paragraph attached on page 7 of this amendment.

12

13 **Chapter 2, Urban Communities:**

✓ 14 On page 2-39, on lines 1401 through 1417, delete policy U-208, and insert revised policy
15 U-208 attached on page 8 of this amendment.

16

17 **Chapter 3, Rural Areas and Natural Resource Lands:**

51

✓ 18 On page 3-52, beginning on line 1974, strike lines 1974 through 1979, and insert revised
19 paragraph attached on page 9 of this amendment.

20

21 **Chapter 4, Housing and Human Services:**

✓ 22 On page 4-3, on lines 53 through 82, delete policy H-102, and insert revised policy H-102
23 attached on page 10 of this amendment.

✓ 24 On page 4-14, on lines 490 through 497, delete policy H-154, and insert revised policy H-
25 154 attached on page 11 of this amendment.

✓ 26 On page 4-21, on lines 747 through 767, delete policy H-204, and insert revised policy H-
27 204 attached on page 12 of this amendment.

✓ 28 On page 4-22, on lines 799 through 805, delete policy H-209, and insert the paragraph
29 and revised policy H-209 attached on page 13 of this amendment.

✓ 30 On page 4-22, after line 805, insert the paragraph and new polices H-210 through H-213
31 attached on page 14 of this amendment.

32

33 **Chapter 5, Environment:**

✓ 34 On page 5-21, on line 775, delete website link as attached on page 15 of this amendment.

35

36 **Chapter 6, Shorelines:**

✓ 37 On page 6-7, on line 213, delete website link and insert revised website link attached on
38 page 16 of this amendment.

39

40 **Chapter 9, Services, Facilities and Utilities:**

41 On page 9-29, on lines 1064 to 1065, delete website link and insert revised website link
42 attached on page 17 of this amendment.

43

44 **Chapter 11, Community Service Area Planning:**

45 On page 11-4, after line 54, delete table, and insert revised table attached on page 18 of
46 this amendment.

47 On page 11-48, beginning on line 1704, strike lines 1704 through 1707, and insert revised
48 paragraph attached on page 19 of this amendment.

49

50 **Chapter 12, Implementation, Amendments and Evaluation:**

51 On page 12-18, after line 604, insert new Action 13 attached on page 20 of this
52 amendment.

53 On page 12-19, on line 619, delete "Action 13:" and insert "Action 14:"

54 On page 12-19, on line 628, delete "Action 14:" and insert "Action 15:"

55 On page 12-19, on line 642, delete "Action 15:" and insert "Action 16:"

56

57 **Glossary:**

58 On page G-7, on line 223, delete website link and insert revised website link attached on
59 page 21 of this amendment.

60

61 **EFFECT: *Refines policies and text, as attached. Strikethrough formatting is included***
62 ***for illustrative purposes only and will be removed after adoption.***



King County

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December 2016

Dear King County Resident:

After more than two years of outreach, research and engagement with community members and stakeholders, the King County Council and King County Executive are pleased to present the adopted 2016 King County Comprehensive Plan.

The 2016 update is a major (every four year) review of the Comprehensive Plan. It builds on King County's 25 years of success in implementing the Growth Management Act. Since adoption of the first Comprehensive Plan in 1994, the vast majority of housing growth countywide – 96 percent – has occurred in urban areas. Building on this success, the 2016 plan now also responds to new critical challenges:

Equity and Social Justice. The 2016 Comprehensive Plan includes strong, specific language about how consideration of Equity and Social Justice will shape County actions, how we will move forward with affordable housing and human services goals, how we will work to ensure that undesirable land uses do not overburden historically underserved communities, and how all residents of King County will benefit from careful application of Equity and Social Justice principles when the County sites facilities, operates programs, or launches new initiatives.

Climate Change and Environmental Protection. The 2016 Comprehensive Plan incorporates key goals and policies from the County's 2015 Strategic Climate Action Plan. It demonstrates the County's commitment to climate action, with new policies on environmental and climate justice; more specific references to our efforts to reduce County greenhouse gas emissions through new technologies, such as all-electric battery buses; commitments to ongoing preservation of valuable open spaces; and development of a Green Building handbook and building codes.

Local Government Responsibilities. At its core, the Comprehensive Plan is a description of King County's role in the unincorporated areas. The 2016 Comprehensive Plan highlights this role and provides additional clarity about the County's responsibility as a local service provider to unincorporated residents through enhancements to policies and text throughout all chapters. At the same time, the adopted Comprehensive Plan describes the County's role as a regional service provider and a leader and convener on regional issues of concern.

Housing and Human Services. The 2016 Comprehensive Plan reflects the importance of serving those most in need by organizing policies related to affordable housing and human services into a new chapter. Language in the adopted Plan strengthens and clarifies these policies to reflect the County's commitment to help people who are experiencing homelessness, those at risk of displacement, and those in need of mental health and behavioral health services. The Plan also adds a new policy that calls for a regional approach to increasing the availability of affordable housing.

Local and Regional Planning. The adopted 2016 Comprehensive Plan complies with the State Growth Management Act and illustrates the County's continued commitment to protect rural lands from expansion of the urban growth area. The Comprehensive Plan also launches a new subarea planning program that will create more detailed, stakeholder-informed local plans across the entire unincorporated area.

110
111 Natural Resource Lands. The adopted 2016 Comprehensive Plan reaffirms King County's commitment to
112 protecting our valuable forest and agricultural lands in accordance with the State Growth Management Act. The
113 Comprehensive Plan links the production of local food and the proliferation of farmers markets to continued
114 protection for our Agriculture Production Districts, which have remained in place for more than forty years. New
115 policies in this update also encourage the use of Best Management Practices and sustainable farming activities to
116 help protect the environment.

117
118 2015 marked the 25th anniversary of the passage of the Growth Management Act. This landmark legislation created
119 a new planning approach in Washington State that sought to address the harmful impacts of uncoordinated and
120 unplanned growth. The Growth Management Act requires jurisdictions to designate an urban growth area within
121 which growth would be encouraged and outside of which growth could occur only if it was not urban in nature. It
122 also requires the adoption of regulations to assure the conservation of agricultural, forest, and mineral resource lands
123 of long-term significance as well as regulations to protect environmentally critical areas including wetlands, aquifer
124 recharge areas, fish and wildlife habitat corridors, frequently flooded areas, and geologically hazardous areas. By
125 almost any measure, King County has been successful in realizing these broad goals. Since adoption of the first
126 Comprehensive Plan in 1994, the vast majority of housing growth countywide – 96 percent – has occurred in urban
127 areas. And, through incorporations and annexations, more than 60 percent of the unincorporated urban area that
128 existed in 1994 is now within cities, which continues to fulfill the goal of transitioning counties to serve as providers
129 of rural and regional services. In Rural Areas and Natural Resource Lands, the County has preserved working farms
130 and forests through a balanced strategy that includes regulations, incentives, and technical assistance, and this has
131 led to a sustainable rate of development.

132
133 Looking forward, the State, local jurisdictions, and regional partners will soon be reviewing the required timelines
134 for comprehensive plan updates and how that relates to timing of growth forecasts, Buildable Lands Reports,
135 updates to the multicounty planning policies and growth allocations, and updates to countywide planning policies
136 and growth targets. The County will be involved in this work and will determine how it affects our own
137 Comprehensive Plan update cycle to ensure alignment with the broader growth management framework timelines.
138 Review of the King County Comprehensive Plan update cycle will also evaluate scheduling major updates in odd
139 calendar years, in consideration of the County's biennial budget cycle.

140
141 The adoption of the 2016 Comprehensive Plan marks yet another step of King County's ongoing success at
142 balancing economic vitality and healthy neighborhoods with careful stewardship of our farms, forests, and open
143 spaces. Together, we can ensure that that our region continues to manage growth effectively while protecting
144 thriving rural and resource lands, and remain in compliance with the Growth Management Act.

145
146 Sincerely,



Rod Dembowski
Chair, Transportation, Economy and Environment
Committee
King County Council



Dow Constantine
King County Executive

147

148

149 RP-109

King County should establish and/or participate in regional and subregional partnerships to advance the objectives of the Comprehensive Plan, such as:

151

a. The King County Cities Climate Collaboration (the "K4C") to confront climate change,

152

153

b. The Puget Sound Regional Council's Regional Transit Oriented Development Program to advance transit-oriented development around transit stations and hubs,

154

155

c. The Eastside Rail Corridor Regional Advisory Council, or successor groups, to support a vision that includes dual use (recreation trail and public transportation) and multiple objectives, consistent with its federal railbanked status, and

156

157

158

159

d. The Regional Code Collaboration to collaborate on development of and updates to green building codes.

160

161

162

163 In addition to subarea plans and area((wide)) zoning and land use studies, King County's land use planning also
164 includes other planning processes. These include Comprehensive Plan policy directed subarea studies, such as the
165 establishment of new community business centers, adjusting Rural Town boundaries, or assessing the feasibility of
166 upzoning in urban unincorporated areas. Subarea studies are focused on specific areas of the County, but do not
167 look at the range of issues that a subarea plan would include. In some cases, an area zoning and land use study may
168 suffice to meet the requirements of the policies. In addition, there are Site Specific Land Use Amendments¹ and
169 Zone Reclassifications,² which are site specific processes that involve County staff review and recommendations, a
170 public hearing and recommendation by a Hearing Examiner and a decision by County Council. These must be
171 consistent with the Comprehensive Plan or proposed with amendments during the Plan update process.
172

¹ Per King County Code 20.08.170-Site Specific Land Use Amendments

² Per King County Code 20.08.160-Reclassification

173 U-208

King County should engage in joint planning processes for the urban unincorporated areas with the area's designated annexation city. Alternatively, upon a commitment from the city to annex through an interlocal agreement, King County will engage in joint planning processes for the urban unincorporated areas in tandem with the annexing city. Such planning may consider land use tools such as:

- a. traditional subarea plans, subarea studies or area((wide)) rezoning;
- b. allowing additional commercial and high-density residential development through the application of new zoning;
- c. Transfers of Development Rights that add units to new development projects; and
- d. application of collaborative and innovative development approaches, such as design standards.

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185
186 King County will work through the Growth Management Planning Council to develop
187 a plan to move the remaining unincorporated urban Potential Annexation Areas
188 towards annexation.

189

190 The Local Food Initiative's production targets are to add 400 net new acres in food production and 25 new food
191 farmers per year over the next ten years. Success in meeting the targets will require protection of existing farmland,
192 keeping it farmed, addressing problems that impair farming, and enhancing programs that provide technical
193 assistance to farmers and expand markets for local farm products. To meet this target, the County should also
194 pursue feasible opportunities to return formerly farmed land into production, such as the recent purchase of Tall
195 Chief Golf Course in the Snoqualmie Valley which will be returned to agricultural use. In advancing this initiative,
196 King County will encourage Best Management Practices and sustainable farming activities and will prioritize
197 farming operations that have minimal adverse impacts on the environment.

198

199 H-102

200 King County shall work with jurisdictions, the private sector, state and federal
201 governments, other public funders of housing, other public agencies such as the
202 Housing Authorities, regional agencies such as the Puget Sound Regional Council,
203 intermediary housing organizations, and the non-profit sector, to encourage a wide
204 range of housing and to reduce barriers to the development and preservation of a
205 wide range of housing, at an appropriate size and scale, that:

- 206 a. Provides housing choices for people of all income levels, particularly in
207 areas with existing or planned high-capacity and frequent public
208 transportation access where it is safe and convenient to walk, bicycle, and
209 take public transportation to work and other key destinations such as
210 educational facilities, shopping and health care;
- 211 b. Meets the needs of a diverse population, especially families and individuals
212 who have very-low to moderate incomes, older adults, people of color,
213 children and vulnerable adults (including victims and survivors of domestic
214 violence, human trafficking, and commercial sexual exploitation), people
215 with developmental disabilities, people with behavioral, physical, cognitive
216 and/or functional disabilities, and people who are experiencing
217 homelessness;
- 218 c. Supports economic growth;
- 219 d. Supports King County's Equity and Social Justice Initiative and Health and
220 Human Services Transformation Plan goals, for an equitable and rational
221 distribution of low-income and high-quality affordable housing, including
222 mixed-income housing, throughout the county; and
- 223 e. ~~((Fosters safety from gun injury and violence, including through expanding
224 access to and availability of gun storage safes and identifying and utilizing
225 design standards that are shown to increase connectivity and reduce
226 violence. King County shall identify opportunities to encourage permanent
227 firearm and safe medicine storage locations in every new construction
228 private and public residential buildings)) Allows for the opportunity to
229 encourage permanent safe firearm storage locations in private and public
230 residential buildings to make safe storage an easy choice, and, fosters
231 safety from injury and violence, through exploring housing and community
232 design standards that are shown to increase connectivity and reduce
233 violence.~~

234 H-154 King County shall work with partners and stakeholders to encourage ~~((the))~~
235 improvement in healthy housing elements in existing affordable housing
236 sustainability standards, with emphasis on healthy housing elements that reduce
237 problems such as asthma, falls, gun-related injury and violence, and unintentional
238 poisoning. ~~((King County shall work with housing stakeholders and residents to
239 make available information and resources that will reduce gun-related injury and
240 violence, including increasing availability of safer firearm storage locations and
241 devices and choosing housing designs that increase connectivity and reduce
242 violence.))~~
243

- 244 H-204 King County shall strive to apply principles that lead to thriving healthy communities
245 in all neighborhoods of the region. King County will support public health
246 investments that help all residents to live in thriving communities where they have
247 the opportunity to make healthy choices. King County shall support:
- 248 a. Access to safe and convenient opportunities to be physically active,
249 including access to walking, bicycling, recreation and transit infrastructure;
 - 250 b. Access to healthy, affordable foods and the elimination of food deserts;
 - 251 c. Protection from exposure to harmful environmental agents, such as lead,
252 ~~and infectious disease((, including regional efforts to test children (at 12~~
253 ~~months and 24 months) for exposure to lead poisoning));~~
 - 254 d. Access to transportation infrastructure designed to prevent pedestrian,
255 bicyclist and motor vehicle-related injuries;
 - 256 e. Residential neighborhoods free from violence and fear of violence;
 - 257 f. Protection from involuntary exposure to second hand tobacco smoke and
258 under-age access to tobacco products;
 - 259 g. Community amenities and design that maximizes opportunities for social
260 connectivity and stress reduction; and
 - 261 h. A range of health services, including timely emergency response and
262 culturally-specific preventive medical, behavioral and dental care within
263 their community.
264

265 Crime and perceived safety varies by geographic area in King County and is an equity and social justice concern.
266 Safe communities promote resiliency and can act as a protective factor preventing violence and other crime. Gun
267 violence, including suicide, is in particular a public health and public safety issue. Unsafely stored firearms are a
268 risk factor for suicide or other violence in the home. In addition, unsafe storage contributes to gun theft, which
269 can result in the gun finding its way into the hands of someone planning to use it for suicide, homicide or assault.
270 Over half of King County residents who own firearms (approximately 123,000 people; based on 2014 data)
271 report that they store at least one firearm unlocked. King County's Child Death Review regularly documents
272 cases where unsafe firearm storage resulted directly or indirectly in a child's death. Evidence has shown that
273 safely storing firearms -- unloaded and locked -- is a protective factor in preventing youth suicide. Safe storage
274 can also limit theft, and the expansion of the illegal gun market. Education of firearm owners about safe firearm
275 storage is a key public health strategy, as is making safe firearm storage an easy choice. Emerging evidence also
276 shows that community and housing design can decrease violence in communities, including firearm violence.

277

278 **H-209** **King County ((shall) should work to address the public health ((~~crisis of gun~~**
279 **~~violence. King County shall collect epidemiological and other data on gun-related~~**
280 **~~injury and death in King County, and engage with cities, local neighborhoods, non-~~**
281 **~~profit, and retailer partners in order to create policy and other solutions that can~~**
282 **~~keep our families and communities safe. King County shall make available~~**
283 **~~resources that foster safety from gun injury and violence, such as LOK-IT-UP, which~~**
284 **~~promotes safe storage of firearms)) and public safety crisis of gun violence by~~**
285 **collecting epidemiological and other data, engaging with cities, local**
286 **neighborhoods, and other stakeholders, and making information available that**
287 **promotes safe firearm storage and fosters community safety.**

288

289 Although exposures to lead have generally decreased as a result of regulatory interventions, lead poisoning remains a
290 significant, but preventable, environmental health problem. Our most vulnerable populations are children under 6
291 years of age. The largest source of lead exposure nationwide and in King County is lead-based paint. The greatest lead
292 based paint risk is in housing built before 1978. The 2010-2014 American Community Survey 5-Year Estimates shows
293 54% of all King County housing was built prior to 1978 indicating that over 471,000 households, single family, and
294 multi-units could pose a lead hazard. The preferred method for eliminating exposure from lead-based paint would be
295 to remove it from all housing; however, it is impracticable to require this of all property owners. King County assists
296 building and home owners and tenants to become aware of the lead-based paint risks, its impacts to health, and the
297 tools and requirement needed to reduce exposures including the use of lead safe work practices.

298
299 H-210 King County should seek to develop strategies to decrease exposure to lead where
300 children live, learn and play.

301
302 H-211 King County shall advocate for regional efforts to screen all children (at 12 months
303 and 24 months) for exposure to lead poisoning.

304
305 H-212 King County should work to ensure all renovation, repair and painting work that
306 disturbs painted surfaces in pre-1978 dwellings be performed in compliance with the
307 requirements of the Washington Department of Commerce to reduce exposure to
308 lead contaminated dusts.

309
310 H-213 King County should work to ensure strategies are used that minimize or eliminate
311 the spread of lead dust during the demolition of pre-1978 residential and commercial
312 buildings, including community education and notification.

313

314 ((See www.kingcounty.gov/healthservices/health/preparedness/VPAT.aspx))

315

316 ((<http://www.kingcounty.gov/shorelines/shorelines-plan-update.aspx>)) <http://www.kingcounty.gov/shorelines>
317

318 ((~~[http://www.kingcounty.gov/environment/waterandland/stormwater/pollution-discharge-permit/annual-
320 reports.aspx](http://www.kingcounty.gov/environment/waterandland/stormwater/pollution-discharge-permit/annual-
319 reports.aspx)~~) [http://www.kingcounty.gov/services/environment/water-and-land/stormwater/pollution-discharge-
permit/annual-reports.aspx](http://www.kingcounty.gov/services/environment/water-and-land/stormwater/pollution-discharge-
321 permit/annual-reports.aspx))

Attachment to Amendment A-1 to 2016-0155.2
December 2, 2016

Year	Community Service Area	Other Planning
2016	West King County CSA – ((Skyway-West Hill, and)) Vashon-Maury Island CSA	Major Comp. Plan Update
2017	West King County CSA – <u>Skyway-West Hill, and North Highline</u>	
2018	Snoqualmie Valley/Northeast King County CSA	
2019	Greater Maple Valley/Cedar River CSA	
2020	West King County CSA - Fairwood	Major Comp. Plan Update
2021	Bear Creek/ Sammamish CSA	
2022	Southeast King County CSA	
2023	Four Creeks/Tiger Mountain CSA	

322

323 ~~((In 2014, King County began to assist this community in updating its community plan. The result of this process~~
324 ~~was the development of the Skyway West Hill Action Plan (known as the SWAP in the community) in 2015. The~~
325 ~~SWAP has been adopted as an *addendum* to the existing, adopted community plan as part of the 2016~~
326 ~~Comprehensive Plan update.))~~ In 2014, the County adopted Motion 14221, which called for a comprehensive
327 update to the West Hill Community Plan. Around this same time, the County was also providing technical
328 assistance to a community-led effort to update some elements of the Community Plan. This community-led effort
329 resulted in the development of a local Action Plan, which was proposed to be an addendum to the existing
330 Community Plan. Since then, the County reinitiated its Subarea Planning Program – and, as a result, the County
331 now has resources available to comprehensively review the Community Plan, consistent with Motion 14221. The
332 County will work with the community to review the proposed Action Plan and to update the Community Plan
333 within the context of the new Subarea Planning Program. An update to the Community Plan will be transmitted by
334 the Executive to the Council by September 1, 2017 and will be considered by the Council as part of the 2017
335 Comprehensive Plan update.

336

337 **Action 13: Water Availability and Permitting Study.** The recent Washington State Supreme Court decision in
338 Whatcom County v. Western Washington Growth Management Hearings Board (aka, Hirst) held that counties have a
339 responsibility under the Growth Management Act to make determinations of water availability through the
340 Comprehensive Plan and facilitate establishing water adequacy by permit applicants before issuance of development
341 permits. Hirst also ruled that counties cannot defer to the State to make these determinations. This case overruled a
342 court of appeals decision which supported deference to the State. The Supreme Court ruling will require the County
343 to develop a system for review of water availability in King County, with a particular focus on future development
344 that would use permit exempt wells as their source of potable water. This system will be implemented through
345 amendments to the King County Comprehensive Plan and development regulations. The County will engage in a
346 Water Availability and Permitting Study to address these and related issues. This study will not include analysis of
347 current water availability.

- 349 • Timeline: Eighteen month process. Initial report will be transmitted to the Council by December 1, 2017;
350 final report, with necessary amendments, will be transmitted to the Council by July 1, 2018. This report
351 may inform the scope of work for the next major Comprehensive Plan update.
- 353 • Outcomes: Modifications, as needed, to the Comprehensive Plan, King County Code and County practices
354 related to ensuring availability of water within the Comprehensive Plan and determining the adequacy of
355 water during the development permit process.
- 357 • Leads: Performance, Strategy and Budget. Work with the Department of Permitting and Environmental
358 Review, Department of Natural Resources and Parks, Department of Public Health, Prosecuting Attorney's
359 Office, and King County Council. Involvement of state agencies, public and non-governmental
360 organizations.

362 ((<http://www.kingcounty.gov/property/permits/codes/growth/CompPlan/amend/docket.aspx>)) [http://www.kin](http://www.kingcounty.gov/depts/executive/performance-strategy-budget/regional-planning/king-county-comprehensive-plan/amend/docket.aspx)
363 [gcounty.gov/depts/executive/performance-strategy-budget/regional-planning/king-county-comprehensive-](http://www.kingcounty.gov/depts/executive/performance-strategy-budget/regional-planning/king-county-comprehensive-)
364 [plan/amend/docket.aspx](http://www.kingcounty.gov/depts/executive/performance-strategy-budget/regional-planning/king-county-comprehensive-)
365

KL → AM # A-2

Adopted

18427

12

A-2

12/4/16

Amend to Amend A-1 –
Workplan #13

cmj

Sponsor: Lambert

Proposed No.: 2016-0155

1 **AMENDMENT TO AMENDMENT A-1 TO ATTACHMENT A TO PROPOSED**

2 **ORDINANCE 2016-0155, VERSION 2**

3 In Amendment A-1, on page 18, at the beginning of line 342, after "Water Availability and
4 Permitting Study to address these and related issues." insert "This study will analyze methods to
5 accommodate current zoning given possible water availability issues and will look at innovative ways to
6 accommodate future development in any areas with insufficient water by using mitigation measures (e.g.
7 water banks)."

8
9 ***EFFECT: Amends Amendment 1 by adding text to Workplan Action #13 (related to***
10 ***Water Availability) to include accommodating future development under current***
11 ***zoning. The amendment would change the policy from Amendment 1 as follows***
12 ***(strikethrough formatting is included for illustrative purposes only):***

13 **Action 13: Water Availability and Permitting Study.** The recent Washington State Supreme Court
14 decision in *Whatcom County v. Western Washington Growth Management Hearings Board (aka, Hirst)* held that
15 counties have a responsibility under the Growth Management Act to make determinations of water
16 availability through the Comprehensive Plan and facilitate establishing water adequacy by permit
17 applicants before issuance of development permits. *Hirst* also ruled that counties cannot defer to the State to
18 make these determinations. This case overruled a court of appeals decision which supported deference to
19 the State. The Supreme Court ruling will require the County to develop a system for review of water
20 availability in King County, with a particular focus on future development that would use permit exempt
21 wells as their source of potable water. This system will be implemented through amendments to the King
22 County Comprehensive Plan and development regulations. The County will engage in a Water Availability
23 and Permitting Study to address these and related issues. **This study will analyze methods to**
24 **accommodate current zoning given possible water availability issues and will look at innovative ways**
25 **to accommodate future development in any areas with insufficient water by using mitigation measures**
26 **(e.g. water banks).** This study will not include analysis of current water availability.

21

- 27 • *Timeline:* Eighteen month process. Initial report will be transmitted to the Council by December 1,
28 2017; final report, with necessary amendments, will be transmitted to the Council by July 1, 2018.
29 This report may inform the scope of work for the next major Comprehensive Plan update.
30
- 31 • *Outcomes:* Modifications, as needed, to the Comprehensive Plan, King County Code and County
32 practices related to ensuring availability of water within the Comprehensive Plan and determining
33 the adequacy of water during the development permit process.
34
- 35 • *Leads:* Performance, Strategy and Budget. Work with the Department of Permitting and
36 Environmental Review, Department of Natural Resources and Parks, Department of Public
37 Health, Prosecuting Attorney's Office, and King County Council. Involvement of state agencies,
38 public and non-governmental organizations.

21

19 **Chapter 2, Urban Communities:**

20 ✓ On page 2-4, on lines 106 through 115, delete policy U-103, and insert revised policy U-
21 103 attached on page 15 of this amendment.

22 ✓ On page 2-34, on lines 1206 through 1216, delete policy U-189, and insert revised policy
23 U-189 attached on page 16 of this amendment

24 ✓ On page 2-34, on lines 1218 through 1225, delete policy U-190, and insert revised policy
25 U-190 attached on page 17 of this amendment

26 ✓ On page 2-36, strike lines 1291 through 1295, and insert revised language attached on
27 page 18 of this amendment.

28

29 **Chapter 3, Rural Areas and Natural Resource Lands:**

30 ✓ On page 3-1, strike line the text in the box on line 7, and insert revised language attached
31 on page 19 of this amendment.

✓ 32 On page 3-2, strike lines 10 through 22, and insert revised language attached on page 20
33 of this amendment.

✓ 34 Starting on page 3-2, strike lines 24 through 49, and insert revised language attached on
35 page 21 of this amendment.

✓ 36 On page 3-3, strike lines 51 through 75, and insert revised language attached on page 22
37 of this amendment.

✓ 38 On page 3-6, strike lines 178 through 187, as shown on page 23 of this amendment.

39 ✓ On page 3-7, on lines 195 through 199, delete policy R-102, and insert revised policy R-
40 102 attached on page 24 of this amendment

41 ✓ On page 3-7, strike lines 203 through 208, and insert revised language attached on page
42 25 of this amendment.

43 ✓ On page 3-8, on lines 250 through 270, delete policy R-202, and insert revised policy R-
44 202 attached on page 26 of this amendment

45 ✓ On page 3-9, strike lines 272 through 277, and insert revised language attached on page
46 27 of this amendment.

47 ✓ On page 3-9, strike lines 293 through 298, and insert revised language attached on page
48 28 of this amendment.

49 ✓ On page 3-10, strike lines 335 through 343, and insert revised language attached on page
50 29 of this amendment.

51 ✓ On page 3-13, strike lines 425 through 429, and insert revised language attached on page
52 30 of this amendment.

53 ✓ Starting on page 3-14, on lines 498 through 513, delete policy R-213, and insert revised
54 policy R-213 attached on page 31 of this amendment.

55 ✓ On page 3-16, strike lines 542 through 566, and insert revised language attached on page
56 32 of this amendment.

57 ✓ On page 3-17, on lines 612 through 616, delete policy R-303, and insert revised policy R-
58 303 attached on page 33 of this amendment.

59 ✓ Starting on page 3-17, on lines 618 through 621, delete policy R-304, and insert revised
60 policy R-304 attached on page 34 of this amendment.

61 ✓ On page 3-19, on lines 697 through 698, delete policy R-311, and insert revised policy R-
62 311 attached on page 35 of this amendment.

- ✓ 63 Starting on page 3-21, on lines 774 through 788, delete policy R-316, and insert revised
64 policy R-316 attached on page 36 of this amendment.
- ✓ 65 On page 3-22, on lines 790 through 814, delete policy R-317, and insert revised policy R-
66 317 attached on page 37 of this amendment.
- ✓ 67 On page 3-23, on lines 842 through 847, delete policy R-320, and insert revised policy R-
68 320 attached on page 38 of this amendment.
- ✓ 69 Starting on page 3-24, on lines 882 through 917, delete policy R-323, and insert revised
70 policy R-323 attached on page 39 of this amendment.
- ✓ 71 On page 3-29, strike lines 1090 through 1096, and insert revised language attached on
72 page 40 of this amendment.
- ✓ 73 On page 3-30, on lines 1098 through 1101, delete policy R-401, and insert revised policy
74 R-401 attached on page 41 of this amendment.
- ✓ 75 On page 3-30, on lines 1103 through 1112, delete policy R-402, and insert revised policy
76 R-402 attached on page 42 of this amendment.
- ✓ 77 On page 3-30, strike lines 1114 through 1116, and insert revised language attached on
78 page 43 of this amendment.
- ✓ 79 On page 3-30, on lines 1118 through 1125, delete policy R-403, and insert revised policy
80 R-403 attached on page 44 of this amendment.
- ✓ 81 On page 3-31, on lines 1148 through 1153, delete policy R-501, and insert revised policy
82 R-501 attached on page 45 of this amendment.
- ✓ 83 On page 3-32, on lines 1170 through 1172, delete policy R-502, and insert revised policy
84 R-502 attached on page 46 of this amendment.

85 On page 3-33, on lines 1230 through 1241, delete policy R-507, and insert revised policy
86 R-507 attached on page 47 of this amendment.

87 Starting on page 3-34, on lines 1282 through 1288, delete policy R-510, and insert
88 revised policy R-510 attached on page 48 of this amendment.

89 On page 3-47, on lines 1754 through 1758, delete policy R-627, and insert revised policy
90 R-627 attached on page 49 of this amendment.

91 On page 3-52, strike lines 1945 through 1951, and insert revised language attached on
92 page 50 of this amendment.

93 On page 3-62, on lines 2351 through 2353, delete policy R-664, and insert revised policy
94 R-644 attached on page 51 of this amendment.

95

96 **Chapter 5, Environment:**

97 On page 5-16, strike lines 568 through 580, and insert revised language attached on page
98 52 of this amendment.

99 On page 5-24, strike lines 868 through 875, and insert revised language attached on page
100 53 of this amendment.

101 On page 5-45, strike lines 1694 through 1698, and insert revised language attached on
102 page 54 of this amendment.

103 On page 5-58, strike lines 2204 through 2206, and insert revised language attached on
104 page 55 of this amendment.

105

106 **Chapter 7, Parks, Open Space and Cultural Resources:**

✓ 107 On page 7-2, strike lines 11 through 21, and insert revised language attached on page 56
108 of this amendment.

✓ 109 On page 7-3, on lines 81 through 83, delete policy P-103, and insert revised policy P-103
110 attached on page 57 of this amendment.

✓ 111 On page 7-5, strike lines 122 through 126, and insert revised language attached on page
112 58 of this amendment.

✓ 113 On page 7-5, strike lines 138 through 147, and insert revised language attached on page
114 59 of this amendment.

115

116 **Chapter 8, Transportation:**

✓ 117 On page 8-14, on lines 486 through 490, delete policy T-211, and insert revised policy T-
118 211 attached on page 60 of this amendment.

✓ 119 On page 8-21, on lines 741 through 746, delete policy T-235, and insert revised policy T-
120 235 attached on page 61 of this amendment.

121

122 **Chapter 9, Services, Facilities and Utilities:**

✓ 123 On page 9-12, on lines 407 through 419, delete policy F-228, and insert revised policy F-
124 228 attached on page 62 of this amendment.

✓ 125 On page 9-18, on lines 644 through 649, delete policy F-239, and insert revised policy F-
126 239 attached on page 63 of this amendment.

✓ 127 On page 9-26, on lines 967 through 968, delete policy F-263, and insert revised policy F-
128 263 attached on page 64 of this amendment.

✓ 129 On page 9-30, on lines 1118 through 1124, delete policy F-274, and insert revised policy
130 F-274 attached on page 65 of this amendment.

✓ 131 On page 9-53, on lines 2031 through 2036, delete policy F-350, and insert revised policy
132 F-350 attached on page 66 of this amendment.

133

134 **Chapter 10, Economic Development:**

✓ 135 On page 10-4, on lines 113 through 116, delete policy ED-102, and insert revised policy
136 ED-102 attached on page 67 of this amendment.

✓ 137 On page 10-7, on lines 215 through 220, delete policy ED-202, and insert revised policy
138 ED-202 attached on page 68 of this amendment.

✓ 139 On page 10-14, on lines 482 through 486, delete policy ED-502, and insert revised policy
140 ED-502 attached on page 69 of this amendment.

✓ 141 On page 10-15, strike lines 533 through 542, and insert revised language attached on
142 page 70 of this amendment.

✓ 143 Starting on page 10-16, on lines 565 through 629, delete policy ED-502, and insert
144 revised policy ED-502 attached on pages 71-72 of this amendment.

✓ 145 On page 10-18, strike lines 638 through 641, and insert revised language attached on
146 page 73 of this amendment.

147

148 **Chapter 11, Community Service Area Planning:**

✓ 149 On page 11-8, strike lines 115 through 121, and insert revised language attached on page
150 74 of this amendment.

✓ 151 On page 11-20, strike lines 572 through 588, and insert revised language attached on
152 page 75 of this amendment.

✓ 153 On page 11-26, strike lines 830 through 834, and insert revised language attached on
154 page 76 of this amendment.

✓ 155 On page 11-37, strike lines 1240 through 1245, and insert revised language attached on
156 page 77 of this amendment.

✓ 157 On page 11-37, on lines 1254 through 1257, delete policy CP-601, and insert revised
158 policy CP-601 attached on page 78 of this amendment.

✓ 159 Starting on page 11-40, strike lines 1391 through 1399, and insert revised language
160 attached on page 79 of this amendment.

161

162 **Chapter 12, Implementation, Amendments and Evaluation:**

✓ 163 On page 12-12, strike lines 350 through 369, and insert revised language attached on
164 page 80 of this amendment.

✓ 165 Starting on page 12-13, strike lines 394 through 425, and insert revised language attached
166 on page 81 of this amendment.

✓ 167 Starting on page 12-16, strike lines 503 through 518, and insert revised language attached
168 on page 82 of this amendment.

169

170 **Glossary:**

✓ 171 On page G-4, strike lines 114 through 117, and insert revised language attached on page
172 83 of this amendment.

✓173 On page G-22, strike lines 790 through 799, and insert revised language attached on page
174 84 of this amendment.

✓175 On page G-22, after line 799, insert revised language attached on page 85 of this
176 amendment.

✓177 On page G-23, strike lines 838 through 848.

✓178 On page G-26, strike lines 953 through 960, and insert revised language attached on page
179 86 of this amendment.

180

181 **EFFECT: Clarifies the 2016 Comp Plan transmittal's proposed use of the terms**
182 **"Rural Area" and "Natural Resource Lands" in order to be consistent with existing**
183 **policy intent. Strikethrough formatting in the attachment is included for illustrative**
184 **purposes only and will be removed after adoption. Relates to Amendment 3.**

185 King County's total land area is **2,130** square miles, accounting for 3% of all land in Washington State. Through
186 careful zoning and development regulations, King County manages its land use in a manner that ensures a high quality
187 of life for its residents. Growth management in King County is largely implemented by directing development toward
188 the Urban Growth Area, while protecting existing Rural Areas, open spaces, and Natural Resource Land((-assets)).
189 This map offers a general snapshot of land use across the county, which shows a higher concentration of urban land
190 uses located towards the western Puget Sound area and more rural and resource uses located in the central and eastern
191 parts of the county.
192

- 193
194
195
196
- **Rural Area policies strengthened to avoid incompatible uses.** Avoiding placement of primarily-urban serving facilities in the Rural Area and Natural Resource Lands (consistent with the Growth Management Act), and removal of the mining site conversion demonstration program. Amendments in *Chapters 2, 3, 9 and 12.*

197 **Rural Areas and Natural Resource Lands**

198 King County's Rural Area and Natural Resource Lands are crucial for sustaining quality of life for county
199 residents into the future. This chapter focuses on protecting these assets from urban development, promoting sustainable economic
200 development and supporting rural communities.

201

202 Reducing sprawl by focusing development into existing urban areas is one of the statutory goals of the state's
203 Growth Management Act. To achieve that goal, steering growth to already developed communities (both within
204 urban areas and, at much smaller scales in Rural Areas and Natural Resource Lands, in a system of central places)
205 with existing infrastructure and services can result in (1) protecting Rural Areas, (2) conserving natural resources,
206 and (3) providing more economical and equitable services and facilities.
207

208 **Chapter 3: Rural Areas and Natural Resource Lands**

209 Protecting Rural Areas, Natural Resource Lands and rural communities in King County is a major focus of the
210 Comprehensive Plan in compliance with both the Growth Management Act and the King County Strategic Plan.
211 This chapter delineates the county's approach to conserving Rural Areas and Natural Resource Lands, supporting
212 rural communities and their heritage, and supporting the agriculture, forestry, and mining economies. Integral to
213 these efforts are incentive tools such as the Transfer of Development Rights program that ensure the protection of
214 environmental quality and wildlife habitat, while respecting economic values and property rights.
215

216 U-103

Parcels that are split by the Urban Growth Area boundary line should be reviewed
for possible redesignation to either all urban area or all ~~(#)~~Rural Area or Natural
Resource Lands taking into consideration:

- 219 a. Whether the parcel is split to recognize environmentally sensitive features;
- 220 b. The parcel's geographic features;
- 221 c. Whether the parcel will be added to an adjoining city's Potential Annexation .
- 222 Area; and
- 223 d. The requirements of interlocal agreements, or the requirements of King
- 224 County plans.
- 225

226 U-189
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Land added to the Urban Growth Area under the Four-to-One Program shall have a minimum density of four dwellings per acre and shall be physically contiguous to the original Urban Growth Area, unless there are limitations due to the presence of critical areas, and shall be able to be served by sewers and other efficient urban services and facilities; provided that such sewer and other urban services and facilities shall be provided directly from the urban area and shall not cross the open space or Rural Area or Natural Resource Lands. Drainage facilities to support the urban development shall be located within the urban portion of the development. In some cases, lands must meet affordable housing requirements under this program. The total area added to the Urban Growth Area as a result of this policy shall not exceed 4,000 acres.

238 **U-190** **King County shall amend the Urban Growth Area to add Rural Area lands to the**
239 **Urban Growth Area consistent with Policy U-185 during the annual Comprehensive**
240 **Plan amendment process. Open space dedication shall occur at final formal plat**
241 **recording. If the applicant decides not to pursue urban development or fails to**
242 **record the final plat prior to expiration of preliminary plat approval, the urban**
243 **properties shall be restored to a ((Rural Area zoning and land use designation))Rural**
244 **Area land use designation and associated zoning during the next annual review of**
245 **the King County Comprehensive Plan.**
246

247 Much of the remaining urban unincorporated area is made up of geographically isolated islands surrounded by cities
248 or adjacent to the urban growth boundary. Because these areas are scattered across the county, the provision of
249 local services is costly. Covering the cost of serving these areas reduces the amount of revenue available for regional
250 services and for local services in the Rural Area and Natural Resource Lands. Therefore, King County has a strong
251 fiscal interest in seeing the remaining urban unincorporated areas annexed to cities within the next several years.
252

253

Rural King County is an essential part of the county's rich diversity of communities and lifestyle choices, encompassing landscapes of scenic and great natural beauty. This chapter sets forth the county's intent and policies to ensure the conservation and enhancement of rural communities and natural resource lands.

254

255

In addressing these Rural Area needs, this chapter also comprises the rural land use classifications, such as ~~((of))~~ Rural Area, Rural Neighborhood Commercial Centers, and Rural Towns. It also addresses the designated Natural Resource Lands, which include lands designated Agriculture, Forest, or Mining on the Land Use Map.

256 **1. Growth Management Act Goals, Elements, and Requirements**

257 Sections I through V of this chapter satisfy the Growth Management Act's mandatory rural element by designating
258 Rural Area lands in order to limit development and prevent sprawl, by permitting land uses that are supportive of
259 and compatible with the rural character established in the King County Countywide Planning Policies, and by
260 providing for a variety of rural densities. These sections also satisfy the mandatory land use element by indicating
261 the population densities that are appropriate for the Rural Area(~~(land use classifications)~~). The policies in these
262 sections also encourage natural resource-based industries and (~~(Natural Resource Land)~~)uses in the Rural Area as
263 required by the Growth Management Act.
264

265 Section VI of this chapter satisfies Growth Management Act Goal 8 to maintain and enhance natural resource-based
266 industries; the Revised Code of Washington 36.70A.170 requirement to designate ~~((#))~~Natural ~~((#))~~Resource
267 ~~((#))~~Lands; and the Revised Code of Washington 36.70A.080 optional conservation element by conserving
268 ~~((#))~~Natural ~~((#))~~Resource ~~((#))~~Lands.
269

270 **2. Equity and Social Justice Initiative**

271 It is the county's goal to consider Equity and Social Justice in its planning, project development and local
272 government service delivery throughout the ~~((#))Rural ((#))Area~~ **and Natural Resource Lands**. Policies consistent
273 with the county's Environmental and Social Justice Initiative in this chapter are related to local service delivery,
274 natural resources, food systems and economic development determinants, respectively.

275
276 In its role as a local government in the unincorporated area, King County is committed to work to reduce inequities
277 and provide opportunities by incorporating the values of the county's Equity and Social Justice work into the daily
278 practice of developing policies and programs, making funding decisions and delivering services.

279
280 Policies in this chapter also support healthy built and natural environments by protecting ~~((#))Natural ((#))Resource~~
281 ~~((#))Lands~~ from development and ensuring a mix of land uses that support rural jobs, natural resource-based
282 businesses and conserved open spaces that provide environmental services such as clean air, clean water and wildlife
283 habitat. Agricultural policies support local food systems and provide access to affordable, healthy, and culturally
284 appropriate foods for county residents. Agricultural policies in this chapter that implement the county's 2015 Local
285 Food Initiative address the need to bring additional land into food production, to improve access to technical and
286 financial resources for farmers that need them, and make local food more accessible in underserved communities.

287
288 Additional policies related to economic development in the agriculture and forestry sectors are located in Chapter
289 10, Economic Development.

290
291 The King County Rural Forest Commission and Agriculture Commission advise the county on the development
292 and implementation of strategies, programs, policies and regulations that affect rural communities and resource
293 lands. The members of these advisory boards are chosen to represent the diverse interests of affected rural residents
294 and business owners.

295

296 **3. Rural Area and Communities**

297 Understanding and conserving the unique characteristics of the Rural Area (~~((a term which includes all the Rural~~
298 ~~land use categories--))~~and each of the county's distinct rural communities will help King County retain its rural
299 character and its agricultural, forestry, and mining heritage.

300
301 King County's Rural Area, including communities such as the Hobart Plateau, Vashon Island, the Snoqualmie
302 Valley, and the Enumclaw Plateau, are characterized by low-density residential development, farms, ranches,
303 forests, watersheds crucial for both fisheries and flood hazard management, mining areas, small cities and towns,
304 historic sites and buildings, archaeological sites, and regionally important recreation areas. These rural uses
305 complement and support the more extensive resource uses in the designated Natural Resource Lands. The location
306 of the Rural Area between the Urban Growth Area and the designated Natural Resource Lands helps to protect
307 commercial agriculture and timber from incompatible uses.

308
309 Designation and conservation of the Rural Area supports and sustains rural communities and rural character as
310 valued parts of King County's diversity. It also provides choices in living environments; maintains a link to King
311 County's heritage; allows farming, livestock uses, and forestry to continue; and helps protect environmental quality
312 and sensitive resources, such as groundwater recharge areas and watersheds crucial for both fisheries and flood
313 hazard management. Rural King County also acts to enhance urban areas by providing a safe and reliable local
314 food source, nearby open space and parks for a variety of recreation and tourism opportunities, and educational
315 opportunities to explore current and historic agricultural and forestry practices.

316
317 ~~((Within the Rural Area geography, zoning includes Rural Area 2.5, Rural Area 5, Rural Area 10, and Rural Area~~
318 ~~20; zoning with the Rural Town and Rural Neighborhood Commercial Center land use designations; and other~~
319 ~~related zoning.--))~~ The purpose of ~~((this))~~ the zoning and ~~((the associated))~~ land use designations in the Rural Area is
320 to provide services and limited goods that satisfy rural residents' and local businesses' daily needs.

321

322 ~~((Several years ago, numerous rural residents realized both a need to protect their diverse communities and to~~
323 ~~represent their common interests to the county. Thus, the Unincorporated Area Councils were created to represent~~
324 ~~the interests of rural residents and business owners, within a specific area.~~

325
326 However, the rural Unincorporated Area Councils do not cover a substantial portion of the Rural Area, thus leaving
327 many rural constituencies without a voice on county policies and programs directed at sustaining and enhancing the
328 character of Rural Areas and Natural Resource Lands, Rural Neighborhood Commercial Centers, and Rural
329 Towns. These rural constituencies include: community groups, such as homeowners associations; interests groups
330 such as Vashon Arts Center and local chambers of commerce; and individual rural residents and business owners.))
331

332 **R-102** King County will continue to support the diversity and richness of its rural
333 communities and their distinct character by working with its rural constituencies
334 through its Community Service Areas program to sustain and enhance the rural
335 character of Rural Area (~~Zoned Land~~) and Natural Resource Lands (~~Rural~~
336 ~~Neighborhood Commercial Centers, and Rural Towns~~)).
337

338 The Rural Area designation in King County represents the multi-use nature of rural lands, including working farms
339 and forests, livestock uses, home-based businesses and housing. ~~((The term Rural Area refers to the geographic area
340 that includes lands zoned as Rural Area 2.5, Rural Area 5, Rural Area 10, and Rural Area 20; zoning within the
341 Rural Commercial Neighborhood Centers and Rural Towns land use designations, and other related zoning.))~~The
342 sustainability and enhancement of these areas and their underlying economic health is critical to the range of
343 lifestyle choices available in King County.
344

345 R-202

The Rural Area ~~((designations))~~ geography shown on the King County
Comprehensive Plan Land Use Map include areas that are rural in character and
meet one or more of the following criteria:

- 348 a. Opportunities exist for significant commercial or noncommercial farming
349 and forestry (large-scale farms and forest lands are designated as Resource
350 Lands);
- 351 b. The area will help buffer nearby Natural Resource Lands from conflicting
352 urban uses;
- 353 c. The area is contiguous to other lands in the Rural Area, Resource Lands or
354 large, predominantly environmentally critical areas;
- 355 d. There are major physical barriers to providing urban services at reasonable
356 cost, or such areas will help foster more logical boundaries for urban public
357 services and infrastructure;
- 358 e. The area is not needed for the foreseeable future that is well beyond the
359 20-year forecast period to provide capacity for population or employment
360 growth;
- 361 f. The area has outstanding scenic, historic, environmental, resource or
362 aesthetic values that can best be protected by a ~~((R))~~ rural
363 ~~((Area-))~~ designation; or
- 364 g. Significant environmental constraints make the area generally unsuitable for
365 intensive urban development.

366

367 The Rural Area geography is generally located east of the Urban Growth Area, with the exception of the entirety of
368 Vashon-Maury Islands. Within the Rural Area, three land use categories are primarily applied: Rural Area
369 (encompassing the Rural 2.5, Rural 5, Rural 10, and Rural 20 zones), allowing a range of low-density residential
370 developments, forestry, farming, livestock uses, recreation and a range of traditional rural uses; Rural Town,
371 recognizing historical settlement patterns and allowing commercial uses to serve rural residents; and Rural
372 Neighborhood Commercial Centers, allowing small-scale convenience services for nearby rural residents.
373

374 The Rural Area (~~encompassing the Rural 2.5, Rural 5, Rural 10, and Rural 20 zoning designations~~) includes
375 working farms and forests. These contribute to rural character; the diversity and self-sufficiency of local economies;
376 and open space, wildlife habitat, flood hazard management, and environmental quality. However, Rural Area land
377 in farm and forest use has diminished since 1985, mostly through the conversion of these lands to residential uses.
378 Pressures to convert from resource use include the high land value for alternative uses and the encroachment of
379 residential and other development that conflicts with the resource use.
380

381 The importance of farming and forestry to the Rural Area and Natural Resource Lands was first emphasized in the
382 1994 Comprehensive Plan. Subsequently, the county took steps to encourage the continuation of farm and forestry
383 practices in the Rural Area and Natural Resource Lands, including developing a *Farm and Forest Report* in 1996. The
384 report recommended a series of actions to protect the rural farm and forest land base as well as the practices of
385 farming and forestry, including the provision of technical assistance to aid property owners in land management,
386 outreach to owners of properties vulnerable to development, creating opportunities for property owners to sell their
387 development rights, and seeking funding for public acquisition of rural properties that had an existing resource-based
388 use. The report also recommended the continuation of the King County Agriculture Commission and the
389 appointment of a Rural Forest Commission to review the impact of proposed regulations on rural forestry and
390 recommend incentive programs.
391

392 The 1996 *Farm and Forest Report* provided a series of strategies for conserving farmland and sustaining farming both
393 within the designated Agricultural Production District where some of the County's best agricultural soils are found
394 and outside the Agricultural Production District, where there continues to be a significant amount of farming. A
395 2013 aerial photo survey identified about 12,000 acres of Rural Area(~~-zoned~~) land in active agriculture, much of it
396 in livestock production.
397

398 R-213

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Soft-surface multiple-use trails in corridors separate from road rights-of-way are the preferred option for equestrian travel for safety reasons and to avoid conflicts with residential activities associated with the street. Existing off-road trails should be preserved during site development, with relocation as appropriate to accommodate development while maintaining trail connections. The King County Road Design and Construction Standards will accommodate safe equestrian travel within road rights-of-way. Where appropriate, capital improvement programs for transportation and park facilities shall also enable the use of new facilities by equestrians. Construction standards for multiple-use nonmotorized trails to be established in road rights-of-way within the Rural Area and Natural Resource Lands should assure a minimum eight-foot-wide gravel shoulder on arterial roads and 4.0 foot gravel shoulder on local access roads, or provide a trail separated from the driving lanes by a ditch or other barrier. Construction standards for soft-surface multiple-use nonmotorized trails in corridors separate from road rights-of-way shall be consistent with current trail construction and maintenance practices as promulgated by the U.S. Forest Service.

415 The Rural Area (~~land uses~~)and Natural Resource Lands are restricted from accommodating large amounts of
416 growth, but low-density residential development and other traditional rural uses are allowed. The Growth
417 Management Act requires that rural development be contained and controlled to ensure the protection of rural
418 character, assure the visual compatibility of rural development with the surrounding Rural Area and Natural
419 Resource Lands, protect environmentally critical areas and habitat, and protect against conflicts with natural
420 resource uses, such as farming, forestry, and mining.

421
422 In 2009, the Growth Management Planning Council adopted urban area targets to accommodate the most recent
423 countywide population projections supplied by the state. These urban targets assumed Rural Area and Natural
424 Resource Lands forecast of fewer than 6,000 additional housing units during the period 2006 to 2031. No attempt
425 has been made to allocate this rural forecast to subareas of rural King County. As targets will not be updated until
426 approximately 2019, these assumptions remain unchanged.

427
428 Since adoption of King County's initial Comprehensive Plan under the Growth Management Act in 1994, annual
429 building permit activity in the Rural Area and on Natural Resource Lands has continued to drop to an average of
430 less than 200 new building permits per year since 2007. Between 2000 and 2010, Rural Areas and Natural Resource
431 Lands grew by about 4,000 housing units to a total of 49,000. However, the population of these areas actually
432 declined slightly during the decade, and stood at 124,000 in 2010. Since then, the population has grown slightly.
433 Application of new zoning measures and other regulatory tools have helped to reduce subdivision activity. The
434 current rate of 200 new homes per year could continue for decades.

435
436 The application of lower-density zoning or more restrictive standards could reduce the creation of new lots, but there
437 are limited opportunities to address development of existing legal lots. One measure that would slow the growth
438 rate on existing lots would be the establishment of an annual limit on the number of building permits to be issued in
439 the Rural Area and on Natural Resource Lands. This alternative would be more palatable if it were linked to a
440 development rights transfer or purchase program.

441

442 R-303 ((The-))Rural Area zoned properties should have low residential densities that can be
443 sustained by minimal infrastructure improvements such as septic systems and rural
444 roads, should cause minimal environmental degradation and impacts to significant
445 historic resources, and that will not cumulatively create the future necessity or
446 expectation of urban levels of services.
447

448 **R-304** **Rural ((a))Area zoned residential densities shall be applied in accordance with R-305**
449 **- R-309. Individual zone reclassifications are discouraged and should not be**
450 **allowed in the Rural Area. Property owners seeking individual zone reclassifications**
451 **should demonstrate compliance with R-305 – R-309.**
452

453 R-311

The King County Residential Density Incentive Program shall not be available for
454 development in the Rural Area zones.

455

456 R-316

Eligible sending sites shall be lands designated on the King County Comprehensive Plan land use map as Rural Area (with RA-2.5, RA-5, and RA-10 zoning (~~and RA-20~~)), Agriculture (A), Forestry (F), and Urban Separator (with R-1 zoning), and shall provide permanent land protection to create a significant public benefit. Priority sending sites are:

461

a. Lands in Rural Forest Focus Areas;

462

b. Lands adjacent to the Urban Growth Area boundary;

463

c. Lands contributing to the protection of endangered and threatened species;

464

d. Lands that are suitable for inclusion in and provide important links to the regional open space system;

465

e. Agricultural and Forest Production District lands;

466

f. Intact shorelines of Puget Sound; or

467

g. Lands identified as important according to the Washington State Department of Ecology's Watershed Characterization analyses.

468

469

470

471 R-317

For Transfer of Development Rights purposes only, qualified sending sites are allocated development rights as follows:

- 473 a. Sending sites in the Rural Area zoned RA-2.5 shall be allocated one
474 Transferrable Development Right for every two and one-half acres of gross
475 land area;
- 476 b. Sending sites ~~((with))~~in the Rural Area zoned ((())RA-5((,))or RA-10((, and RA-
477 20)) or Agricultural zoning shall be allocated one Transferrable
478 Development Right for every five acres of gross land area;
- 479 c. Sending sites with Forest zoning shall be allocated one Transferrable
480 Development Right for every eighty acres of gross land area;
- 481 d. Sending sites with Urban Separator land use designation shall be allocated
482 four Transferrable Development Rights for every one acre of gross land
483 area;
- 484 e. If a sending site has an existing dwelling or retains one or more
485 development rights for future use, the gross acreage shall be reduced in
486 accordance with the site's zoning base density for the purposes of
487 Transferrable Development Right allocation; and
- 488 f. King County shall provide bonus Transferrable Development Rights to
489 sending sites in the Rural Area as follows:
 - 490 1. The sending site is a vacant RA zoned property and is no larger
491 than one-half the size requirement of the base density for the zone;
492 and
 - 493 2. The sending site is a RA zoned property and is located on a
494 shoreline of the state and has a shoreline designation of
495 conservancy or natural.

496

497 **R-320** **King County should seek other public funding and private-public partnerships for**
498 **incorporated and unincorporated urban area amenities to strengthen the Transfer of**
499 **Development Rights Program and facilitate the transfer of development rights from**
500 **Rural Areas and Natural Resource ((Areas))Lands into the King County Urban**
501 **Growth Area to preserve the rural environment, encourage retention of rural and**
502 **resource-based uses, and avoid urban service demands in the Rural Area and**
503 **Natural Resource Lands.**
504

505 R-323

The Rural and Resource Land Preservation Transfer of Development Rights Program shall include, but is not limited to, the following:

- 507 a. In addition to the density that is allowed on a receiving site in the urban
508 growth area from the purchase of Transferrable Development Rights, the
509 county shall evaluate the climate change benefits achieved by reducing
510 transportation related greenhouse gas emissions that result from the
511 transfer of development rights from the sending site, provided that such
512 consideration is not precluded by administrative rules promulgated by the
513 state;
- 514 b. In order to satisfy transportation concurrency requirements in the Rural
515 Area in a transportation concurrency travel shed that is non-concurrent, a
516 development proposal for a short subdivision creating up to four lots may
517 purchase Transferrable Development Rights from other Rural Area or
518 Natural Resource Land properties in the same travel shed; allowing this is
519 intended to reduce overall traffic impacts in rural travel sheds by
520 permanently removing development potential. The transfer shall not result
521 in an increase in allowable density on the receiving site. A short
522 subdivision creating two lots where the property has been owned by the
523 applicant for five or more years and where the property has not been
524 subdivided in the last ten years shall satisfy the transportation concurrency
525 requirements without having to purchase Transferrable Development
526 Rights;
- 527 c. King County shall provide an added density bonus of up to a 100% increase
528 above the base density allowed in K.C. Code 21A.12.030, when
529 Transferrable Development Rights are used for projects within any
530 designated commercial center or activity center within the Urban Growth
531 Area that provides enhanced walkability design and incorporates transit
532 oriented development;
- 533 d. King County may allow accessory dwelling units in the Rural Area that are
534 greater than one thousand square feet, but less than 1,500 square feet, if the
535 property owner purchases one Transferrable Development Right from the
536 Rural Area, Agriculture or Forestry designations; and
- 537 e. King County may allow a detached accessory dwelling unit on a RA-5 zoned
538 lot that is two and one-half acres or greater and less than three and
539 three-quarters acres if the property owner purchases one Transferrable
540 Development Right from the Rural Area, Agriculture or Forestry
541 designations.

542

543 In order to focus growth within the Urban Growth Area, financial resources must be prioritized to develop and
544 maintain sufficient urban infrastructure and services in the Urban Growth Area to accommodate that growth.
545 Further, the presence of a high level of public infrastructure and services has been demonstrated to create pressure
546 for new growth. To use financial resources efficiently and reduce growth pressure in the Rural Area and Natural
547 Resource Lands, King County will not provide an urban level of infrastructure and services to the Rural Area and
548 Natural Resource Lands. Chapter 8, Transportation, and Chapter 9, Services, Facilities and Utilities, clarify King
549 County's priorities for transportation and other facility improvements in the Rural Area and Natural Resource
550 Lands.
551

552 R-401 King County shall work with cities and other agencies providing services to the
553 Rural Area and Natural Resource Lands to adopt standards for facilities and
554 services in the Rural Area and Natural Resource Lands that protect basic public
555 health and safety and the environment, but are financially supportable at ~~((rural))~~
556 appropriate densities and do not encourage urban development.
557

558 R-402

Public spending priorities for facilities and services within the Rural Area and

559

Natural Resource Lands should be as follows:

560

a. **First, to maintain existing facilities and services that protect public health and safety;**

561

562

b. **Second, to upgrade facilities and services when needed to correct level of service deficiencies without unnecessarily creating additional capacity for new growth; and**

563

564

565

c. **Third, to support sustainable economic development that is sized and scaled at levels appropriate for Rural Areas and Natural Resource Lands and does not foster urbanization.**

566

567

568

569 In 2014, King County adopted an update to the Rural Economic Strateg~~((y))~~ies Plan, through ~~((Motion))~~Ordinance
570 17956; this ~~((motion))~~ordinance provides guidance to economic development activities in the Rural Area, as well as
571 on Natural Resource Lands, and is described in more detail in Chapter 10, Economic Development.
572

573 R-403
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In the Rural Area and Natural Resource Lands, standards and plans for utility service should be consistent with long-term, low-density development and resource industries. Utility facilities that serve the Urban Growth Area but must be located in the Rural Area or on Natural Resource Lands (for example, a pipeline from a municipal watershed) should be designed and scaled to serve primarily the Urban Growth Area. Sewers needed to serve previously established urban "islands," Cities in the Rural Area, Rural Towns, or new or existing schools pursuant to R-327 and F-264 shall be tightlined and have access restrictions precluding service to other lands in the Rural Area and Natural Resource Lands.

583 **R-501** **The Rural Neighborhood Commercial Centers designated on the Comprehensive**
584 **Plan Land Use Map are small-scale business areas that should provide convenience**
585 **shopping and services for the surrounding community. No new Rural Neighborhood**
586 **Commercial Centers are needed to serve the Rural Area and Natural Resource**
587 **Lands. Expansion of the boundaries of the existing Rural Neighborhood**
588 **Commercial Centers shall not be permitted except through a subarea study.**
589

590 R-502 Rural Neighborhood Commercial Centers should accommodate only small-scale
591 retail, community and human services, and personal service uses that provide
592 convenience shopping and services to nearby Rural Area and Natural Resource
593 Lands residents.
594

595 R-507

Rural Towns serve as activity centers for the Rural Area and Natural Resource Lands and may be served by a range of utilities and services, and may include several or all of the following land uses, if supported by necessary utilities and other services and if scaled and designed to protect rural character:

- 599 a. Retail, commercial, and industrial uses to serve the surrounding Rural Area
- 600 and Natural Resource Lands population;
- 601 b. Residential development, including single-family housing on small lots as
- 602 well as multifamily housing and mixed-use developments;
- 603 c. Other retail, commercial, and industrial uses, such as resource industries,
- 604 tourism, commercial recreation, and light industry; and
- 605 d. Public facilities and services such as community services, churches,
- 606 schools, and fire stations.

607

608 R-510
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The Cities in the Rural Area and their Potential Annexation Areas are part of the overall Urban Growth Area for purposes of planning land uses and facility needs. King County should work with Cities in the Rural Area to encourage the provision of affordable housing, to minimize the impacts of new development on the surrounding Rural Areas and Natural Resource Lands and to plan for growth consistent with long-term protection of significant historic resources, the surrounding Rural Area and Natural Resource Lands.

616 **R-627** King County should promote and support production, harvest, utilization, and
617 marketing of wood products grown in the county's Rural Area and forest areas.
618 King County should ensure that regulations applying to ~~((#))~~Rural Area and forest
619 areas do not discourage the establishment of sawmills and other wood product
620 businesses and services.
621

622 In 1985, the county first designated its Agricultural Production Districts, which have remained stable since then at
623 more than 41,000 acres. However, despite the land conservation accomplished through the Farmland Preservation
624 Program and the designation of the Agricultural Production Districts, not all of this land is farmed. Based on
625 surveys, approximately 27,000 acres of the Agricultural Production Districts are farmable, the rest being forested,
626 farm building, water bodies or other non-farmable areas. About 25,000 areas are being actively farmed. In addition,
627 there are 13,000 acres in active agriculture outside the Agricultural Production Districts on Rural Area (~~zoned~~
628 ~~land~~) and in urban areas.
629

630 R-664 King County supports innovative technologies to process dairy and other livestock
631 waste to reduce nutrients and to create other products such as energy and compost
632 in the Agriculture and (~~Rural Area zoning~~) rural classifications.
633

634 King County is also supporting emissions reductions at the broader countywide scale through sustainable land use
635 policies, transportation infrastructure, and through the provision of important services such as recycling and transit,
636 including actions and policies such as:

- 637 • Land use designations and zoning that influence the pattern and density of development and the level of
638 reliance on single occupancy vehicles;
- 639 • Use of voluntary tools such as Transfer of Development Rights to reduce development density on Rural
640 Area and Natural Resource Lands;
- 641 • Building codes and facilities standards that can influence the types of building materials and future energy
642 demands;
- 643 • Promoting the use of transit and non-motorized travel modes to decrease vehicle miles traveled; and
- 644 • Protecting ~~((#))~~Rural Area and Natural ~~((#))~~Resource ~~((#))~~Lands from further development through
645 acquisition of fee title or conservation easements to redirect future growth to urban areas to reduce
646 emissions related to transportation and new development.
647

648 As a large county with a mix of urban (~~and rural land~~), Rural Area and Natural Resource Lands uses, King
649 County will continue to face risks from air toxics. Examples of air toxics include benzene, formaldehyde, mercury,
650 and dioxins. The air quality impact of toxics cannot be evaluated in isolation. Their greatest health risk comes from
651 their combined effect. National air toxics assessment data indicate that air toxics risks in the Puget Sound region are
652 in the top five percent in the nation. The Environmental Protection Agency and its regulatory partners at the state
653 and local level identify steps to reduce toxic air pollutants and provide important health protections: reducing toxic
654 emissions from industrial sources; reducing emissions from vehicles and engines through stringent emission
655 standards and cleaner burning gasoline; and addressing indoor air pollution through voluntary programs.
656

657 King County has a long history of resource conservation and waste recycling. Programs have successfully captured
658 organic materials for beneficial use such as yard debris and biosolids applications to farms, forests and composting.
659 However, large volumes of organic waste continue to be disposed of in the landfill. Significant volumes of livestock
660 waste generated in the suburbs, ~~((and))~~ Rural Areas and Natural Resource Lands are inadequately managed, which
661 can adversely impact water quality and fish habitat.
662

663 Protecting groundwater is an important regional issue because groundwater provides approximately 30% of the
664 water used in King County and is the primary source of water in the Rural Areas geography. On Vashon Island and
665 in other sole-source aquifer areas, it is the only source of drinking water.
666

667 The Growth Management Act requires cities and counties to identify open space corridors within and between
668 Urban Growth Areas, including lands useful for recreation, wildlife habitat, trails, and connection of critical areas.
669 The county's designation of open space includes those lands that are part of the King County open space system as
670 well as state parks and natural resource conservation areas and federal wilderness areas in unincorporated King
671 County. See the Land Use Map is located at the end of Chapter 1, Regional Growth Management Planning. The
672 Growth Management Act states that counties are the providers of regional services and local rural services, while
673 cities are the appropriate providers of local urban services. As the regional government, King County manages a
674 regional open space system of parks, regional trails, natural or ecological areas and working resource lands. While
675 the cities are the managers of local parks, trails and open space lands in the Urban Growth Area, King County will
676 continue to be the provider of local parks, trails and open space lands in the Rural Area and Natural Resource
677 Lands.
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679 P-103
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King County will preserve wildlife corridors, riparian habitat, contiguous forest land,
as well as open space areas separating Urban Areas from ~~((and-))~~ Rural Areas and
Natural Resource Lands as part of its open space system.

683 In the Rural Area, the large geographic area and dispersed populations, individual lots, low residential density and
684 economies of site management dictate fewer and smaller individual park sites. Nearby regional parks and other
685 open spaces also provide recreational opportunities in the Rural Area and Natural Resource Lands. King County's
686 role in the Rural Area and Natural Resource Lands will reflect rural levels of service. These vital local parks, local
687 trails, and recreational facilities contribute to the physical, mental and emotional well-being of county residents.
688

689 The Regional Trails System is a major element of the county's greater open space system that provides opportunities
690 for recreation and nonmotorized transportation, as well as corridors often used by wildlife. This system contributes
691 to the health and well-being of both county residents and the environment. King County is home to one of the
692 largest nonmotorized regional trail networks in the North America. King County and local jurisdictions collectively
693 offer approximately 300 miles of shared-use (multi-purpose) paved and unpaved paths connecting communities and
694 linking Puget Sound urban areas with ~~((rural lands))~~ Rural Areas, Natural Resource Lands and the Cascade
695 Mountains. These facilities are classified as shared use paths by the Federal Highway Administration and are a
696 component of the federally-designated regional transportation plan administered by the Puget Sound Regional
697 Council. The King County government stewards some 175 miles of the overall network. The remaining portions of
698 the network are managed by local cities, the Port of Seattle, and Washington State.
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700 T-211
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Any segment of a county roadway that forms the boundary between the Urban Growth Area and the Rural Area or Natural Resource Lands should be designated urban and all associated road right-of-way fully contained within the Urban Growth Area boundary. Such urban boundary roads shall be designed and constructed to urban roadway standards on both sides of the roadway segment.

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The King County Regional Trails System is the centerpiece of the nonmotorized system in the Rural Area and Natural Resource Lands. The county's efforts to enhance the Rural Area and Natural Resource Lands nonmotorized network should include filling in the Regional Trails System's missing links, coordinating road and trail projects whenever possible, considering access from roadways such as trailhead parking, and enhancing access to transit, especially park and rides and transit centers.

714 F-228 King County should strive to site essential public facilities equitably so that no
715 racial, cultural, or socio-economic group is unduly impacted by essential public
716 facility siting or expansion decisions. No single community should absorb an
717 inequitable share of these facilities and their impacts. An assessment of existing
718 facilities should be conducted when siting new facilities. Siting will consider equity,
719 environmental justice and environmental, economic, technical and service area
720 factors. Communities with a disproportionate share of existing facilities should be
721 actively engaged in the planning and siting process for new facilities. The net
722 impact of siting new essential public facilities should be weighed against the net
723 impact of expansion of existing essential public facilities, with appropriate buffering
724 and mitigation. Essential public facilities that directly serve the public beyond their
725 general vicinity shall be discouraged from locating in the Rural Area and Natural
726 Resource Lands.
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728 **F-239**

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King County shall work with water service providers, the State Department of Ecology and the State Department of Health to track and measure groundwater use and to meet the County's obligation to protect groundwater quality and quantity in ~~((r))~~Rural ~~((a))~~Areas, while supporting uses of groundwater that meet public health, resource protection, land use planning, and fish recovery objectives and obligations.

734 F-263
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King County supports innovative technologies to process greywater for safe use on-site in the ~~((Agriculture and Rural Zones))Rural Area and on Natural Resource Lands.~~

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In the Rural Area and Natural Resource Lands, King County shall minimize the use of constructed facilities for stormwater management and, through Low Impact Development, maximize the use of natural systems, provided that the ecological functions of the natural systems are not harmed. The ~~((e))~~ County should provide incentives to keep these natural systems intact. Low Impact Development is also preferred in the Urban Growth Area, but it is recognized that structural systems may be needed to realize urban growth and density goals in these areas.

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Although visual impacts are always an important consideration in the decision to approve or deny a proposal, King County shall give greater weight to the visual impacts of telecommunication facilities proposed to be located on residentially-zoned lands or in the Rural Area or Natural Resource Lands. In addition, the visual impacts of proposals for an individual tower with a single user shall be given greater weight than proposals to collocate facilities.

753 **ED-102** **The focus for significant economic growth will remain within the Urban Growth Area,**
754 **while within the Rural Area and Natural Resource Lands, the focus will be on**
755 **sustaining and enhancing prosperous and successful rural businesses as well as**
756 **encouraging new businesses that support and are compatible with the rural**
757 **economic clusters.**
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759 ED-202

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King County shall emphasize continued support for the aerospace and information technology industrial clusters as well as industrial clusters offering the best opportunities for business development, job creation, and economic growth including those identified in the Puget Sound Regional Council's Regional Economic Strategy, the Local Food Initiative and the King County Rural Economic Strategies ((for rural areas (including resource lands))) Plan.

766 **ED-502** In the Rural Area and Natural Resource Lands, King County shall provide assistance
767 through development of customized stewardship plans for individual properties, to
768 help property owners understand their properties' characteristics and the potential
769 impacts of their actions, and to make sustainable land management choices that
770 protect natural resources.
771

772 The mission of the Rural Economic Strategies Plan is to advance the long-term economic viability of the Rural Area
773 and Natural Resource Lands, with an emphasis on farming, forestry, and other rural businesses consistent with the
774 unique character of rural King County. The mission is accomplished by initiating and implementing specific
775 strategies and actions to support and enhance rural economic viability. Rural businesses generally fall into six rural
776 economic clusters and each cluster is supported by specific strategies and actions to strengthen and/or enhance it.
777 The clusters are: Agriculture, Forestry, Equestrian, Home-Based Businesses (i.e., those home occupations that are
778 allowed on lands designated Agriculture, Forestry and Rural Area), Recreation and Tourism, Commercial and
779 Industrial Rural Neighborhood Commercial Centers, Rural Towns, and Cities in the Rural Area. Consistent with
780 CP-942, found in Chapter 11, Community Service Area Planning, no expansion of industrial land use or zoning is
781 allowed within the Rural Town of Fall City.
782

783 ED-602

King County should implement the Rural Economic Strategies Plan to guide future rural economic development and will modify and add strategies as needed to reflect the evolving nature of the rural economy, while protecting the traditional rural economic clusters.

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- a. King County recognizes the value of the agriculture and forestry clusters for both their economic contribution and for their natural, educational, and recreational benefits to the county as a whole. The county will work with the Agriculture Commission, Rural Forest Commission, and other related organizations on strategies and programs to strengthen and enhance the economic viability of these clusters and the evolving value-added industry that helps sustain the county's legacy of raising crops and livestock and managing and harvesting forestlands.
- b. King County recognizes the value of home-based business, recreation and tourism, and commercial and industrial clusters for their ability to provide job opportunities in the ~~((#))Rural ((a))Area~~ and Natural Resource Lands, and help sustain the rural economic base. The county will continue to work with chambers of commerce and other organizations that support these rural businesses to help ensure the continued viability and economic health of new and existing businesses in these clusters.
- c. King County recognizes the importance of the equestrian cluster for its diversity of business and recreation related operations which combine to provide jobs and income opportunities within the rural economy. The county will continue to work with equestrian related organizations on business and recreation aspects of the equestrian cluster and with organizations that represent the various trail user groups to help ensure the continued viability and economic health of equestrian and related recreation businesses.
- d. As a means and in support of protecting rural character and Natural Resource Lands, King County recognizes the value of the partnership with Cities in the Rural Area to act as local urban centers for employment and centers of commerce that provides goods and services for the Rural Area and Natural Resource Lands. The county will work with the cities and other organizations to support economic development for Cities in the Rural Area, at a size and scale consistent with the Growth Management Act.
- e. King County is committed to ensuring that all economic development, including the provision of infrastructure, within the ~~((#))Rural ((a))Area((, which includes resource lands,))~~ and Natural Resource Lands shall be compatible with the surrounding rural character, be of an appropriate size and scale, and protect the natural environment.
- f. King County will continue to support and partner on programs and incentives to ensure the economic vitality of rural historic resources to help

- 824 maintain the character of the ~~((#))Rural ((a))Area~~~~((, which includes resource~~
825 ~~lands))~~ and Natural Resource Lands.
- 826 g. King County will explore opportunities to support agricultural tourism and
827 value-added program(s) related to the production of food, flowers and
828 specialty beverages (including beer, distilled beverages, and wine) in the
829 county. Partnership venues should be educational and include information
830 on the diversity of products available in the county and the importance of
831 buying local, should seek to unify regional tourism efforts, and should
832 encourage development of new markets for agricultural products and value-
833 added goods.
- 834 h. King County will continue to review existing and proposed regulations to
835 ensure they are relevant and effective in accommodating the differing needs
836 and emerging trends of the compatible businesses that comprise the rural
837 economy.
- 838 i. King County should continue to identify the infrastructure needs of the rural
839 economic clusters, including transportation, drainage, and information
840 technology needs, and provide support for these needs, including
841 identification of other funding sources.
- 842 j. King County should continue to identify and encourage businesses to take
843 advantage of incentives and technical assistance programs that promote
844 economic viability of existing and new businesses in the Rural Area and
845 Natural Resources Lands, particularly in the Agricultural and Forest
846 Production Districts.
- 847

848 The ability to bring rural, agricultural, forestry, and value-added products into the urban area and the ability of
849 urban residents to utilize the ~~((#))Rural~~ ~~((#))Areas~~ and Natural ~~((#))Resource~~ ~~((#))Lands~~ for education, open space,
850 scenic vistas, and a diversity of out-door recreation options encourages the urban/rural interdependence and linkage,
851 thus enhancing the county's economic base.
852

853 **Bear Creek.** The Bear Creek Community Plan became effective in February 1989, and directed most forecast
854 growth into a concentrated area near the City of Redmond Watershed, first referred to as the "Novelty Hill Master
855 Planned Developments." The rest of the Bear Creek Plateau was designated for a mixture of suburban and rural
856 residential development. The 1994 King County Comprehensive Plan redesignated most of the planning area as
857 ~~(Rural Area)~~ Rural Area. In 1995, some of the Bear Creek Community Plan's policies relating to the Novelty Hill Master
858 Planned Developments (MPDs) were amended by Ordinance 11954. Also, the 1994 Comprehensive Plan refers to
859 MPDs as Urban Planned Developments.

860

861 The first Soos Creek Plateau Communities Plan (SCCP) commenced during the fall of 1975, and was adopted in
862 November 1979. The process was controversial, partly because Soos Creek served as a laboratory for several
863 emerging planning concepts, including a Rural Area land use designation implemented with zoning limiting
864 residential density to one home per five acres.

865
866 The Soos Creek Community Plan Update commenced in March 1988 and was adopted in December 1991. In 1995
867 the City of Kent initiated annexation of a very large area between it and Lake Meridian, intended to encompass
868 most of its Potential Annexation Area (PAA) within the planning area. The cities of Maple Valley and Covington
869 have commenced operating and assumed jurisdiction within their territories. The Panther Lake annexation to the
870 City of Kent occurred in 2010.

871
872 The Tahoma/Raven Heights Communities Plan (T/RH) commenced in August 1979 and was adopted in October
873 1984. T/RH continued to apply the Growth Reserve and Rural Area designations and zoning that emerged during
874 the Soos Creek planning process. The planning area is mostly unincorporated Rural Area or Forest Production
875 District. In the years prior to the Growth Management Act (GMA) the City of Black Diamond completed one large
876 annexation. A final Urban Growth Area for Black Diamond was adopted as part of amendments following the 1994
877 King County Comprehensive Plan.

878

879 The Snoqualmie Valley/NE King County Community Service Area includes the Snoqualmie Community Planning
880 Area as well as portions of the East Sammamish, Tahoma Raven Heights and East King County Community
881 Planning Areas. It surrounds the Cities of Snoqualmie, North Bend, Carnation, Duvall and Skykomish and their
882 Potential Annexation Areas. These cities are within Urban Growth Boundaries while the vast majority of the CSA
883 is Rural Area, Natural Resource Lands and unincorporated areas. Fall City is a Rural Town within this CSA.
884

885 The Vashon Community Plan commenced in the spring of 1977 and was adopted in June 1981. Due to concerns
886 about Vashon-Maury Island's water supply, which consists of local rain-fed aquifers, a revision to the plan was set
887 for 1986 after completion of the Vashon/Maury Island Water Resources Study. The revision process began in April
888 1984, and the updated Vashon Community Plan was adopted in October 1986. In addition to responding to the
889 Water Resources Study, the plan update also implemented the 1985 King County Comprehensive Plan's designation
890 of the entire planning area as (~~Rural Area~~) rural.
891

892 CP-601 All of Vashon-Maury Island is recognized for its unique ecological functions as a
893 Puget Sound island, and is designated in this plan as ~~((a-R))~~rural ((Area)).
894 Development activities should protect the entire ecological system, including the
895 Puget Sound shoreline, island habitat areas, and ground and surface water
896 resources. (V-1)
897

898 Vashon-Maury Island is unique within King County in that it is an island community dependent upon a designated
899 sole-source aquifer for its water supply. A Groundwater Management Plan was completed for the Island and
900 approved by both King County and Ecology in 1998. Given that the only source of drinking water is ground water,
901 a higher level of protection of groundwater recharge is warranted on Vashon-Maury Island than in the rest of King
902 County. Land clearing and building activities can reduce groundwater recharge. Low-impact development (LID)
903 practices involve protecting and enhancing native vegetation and soils, reducing impervious surface and managing
904 storm water at the source. These techniques are well suited to development in ~~((rural-residential))~~Rural Area
905 zone~~((d-areas))~~ and can be an effective way to protect groundwater quality and recharge, particularly on
906 Vashon-Maury Island.
907

908 **Action 2: Develop a Performance Measures Program for the Comprehensive Plan.** The purpose of
909 the program is to develop longer-term indicators to provide insight into whether the goals of the Comprehensive
910 Plan are being achieved or if revisions are needed. Given the longer-term nature of the issues addressed in the
911 Comprehensive Plan, this program will be implemented on a four-year cycle. Reports are to be released in the year
912 prior to the initiation of the four-year update in order to guide the scoping process for the update. Additionally, to
913 the extent practicable for each dataset, indicators will be reported at the level most consistent with the major
914 geographies in the Growth Management Act and Comprehensive Plan – incorporated cities, unincorporated urban
915 areas, ~~((#))Rural ((lands))~~Areas, and Natural Resource Lands.

- 916
- 917 • *Timeline:* The motion adopting the program framework shall be transmitted by June 1, 2017. A 2018
918 Comprehensive Plan Performance Measures Report released by December 1, 2018, will inform the 2019
Scope of Work for the 2020 Comprehensive Plan update.
 - 919 • *Outcomes:* The 2017 framework for the program shall be transmitted by the Executive to the Council by
920 June 1, 2017, in the form of a motion that adopts the framework. The 2018 Comprehensive Plan
921 Performance Measures Report shall be completed as directed by the 2017 framework motion adopted by
922 the Council. The Executive shall file with the Council the 2018 Comprehensive Plan Performance
923 Measures Report. The 2019 Scope of Work for the 2020 Comprehensive Plan Update shall be informed by
924 the 2018 Performance Measures Report. The Executive's transmitted 2020 Comprehensive Plan shall
925 include updated references to the new Performance Measures Program.
 - 926 • *Lead:* Office of Performance Strategy and Budget. Executive staff shall work with the Council's
927 Comprehensive Plan lead staff in development of the 2017 framework for the program.
928

929 **Action 4: Transfer of Development Rights Program Review.** The County's Transfer of Development
930 Rights Program has been very successful in protecting ((#))Rural Area and Natural ((#))Resource ((#))Lands by
931 transferring development potential into cities and unincorporated urban areas. Typically the Transfer of
932 Development Rights Program advances two primary policy objectives: conserving ((#))Rural Area and Natural
933 ((#))Resource ((#))Lands, as well as focusing new growth in urban areas.

934

935 This Workplan item will do the following:

936

A. Prepare a Transfer of Development Rights Program Review Study that addresses:

937

1) Tax revenue impacts of the Transfer of Development Rights Program for both sending and
938 receiving sites.

939

2) Analysis of potential Transfer of Development Rights Program changes that build on existing
940 program objectives while considering other policy objectives, such as making investments in
941 economically disadvantaged areas, promoting housing affordability, incentivizing green building,
942 and providing for Transit Oriented Development. The analysis should take into consideration the
943 economic feasibility of and market interest in these other policy objectives, as well as opportunities
944 for providing amenities to communities that receive Transfer of Development Rights. This analysis
945 will be achieved through implementation of a pilot project that utilizes such incentives and provides
946 amenities to the community receiving increased density associated with the Transfer of
947 Development Rights. If possible, the pilot project should be undertaken in Skyway-West Hill and
948 help implement the Skyway-West Hill Action Plan.

949

3) Consider possible performance criteria.

950

B. Produce an annual report to the Council on the Transfer of Development Rights Program and associated
951 bank activity.

952

- *Timeline:* The annual report to the Council shall commence with a report due on December 1, 2017. The
953 Transfer of Development Rights Program Review Study, and an ordinance making Comprehensive Plan
954 and/or King County Code changes if applicable, shall be filed with the Council by December 1, 2018.

955

- *Outcomes:* The Executive shall file with the Council the Transfer of Development Rights Program Review
956 Study and the annual report. The Study shall outline policy and implementation options, if applicable. If
957 Comprehensive Plan and/or King County Code changes are recommended, an ordinance implementing
958 those changes shall also be transmitted to the Council with the Study.

959

- *Leads:* Department of Natural Resources and Parks, Office of Performance Strategy and Budget. Executive
960 staff shall update and coordinate with the Councilmember office(s) representing the pilot project community
961 throughout the process.

962

963 **Action 8: Cottage Housing Regulations Review.** Cottage housing is a method of development that allows
964 for multiple detached single-family dwelling units to be located on a commonly owned parcel. In unincorporated
965 King County, cottage housing is currently only permitted in the R-4 through R-8 urban residential zones, subject to
966 certain conditions in the King County Code, such as in K.C.C. 21A.08.030 and 21A.12.030, which includes being
967 only allowed on lots one acre in size or smaller. This work plan item will review Comprehensive Plan policies and
968 development code regulations for the potential for expanded allowances for cottage housing in unincorporated King
969 County, including in ~~(R)~~Rural ~~(A)~~Areas, and recommend policy and code changes as appropriate.

- 970 • *Timeline:* A Cottage Housing Regulations Report and any proposed policy or code changes to implement the
971 recommendations in the report shall be transmitted to the Council for consideration by December 31, 2018.
- 972 • *Outcomes:* The Executive shall file with the Council the Cottage Housing Regulations Report, which shall
973 include identification of any recommended amendments to the King County Code and/or Comprehensive
974 Plan. The Executive shall also file with the Council an ordinance adopting updates to the King County Code
975 and/or the Comprehensive Plan, if recommended in the Report.
- 976 • *Leads:* The Department of Permitting and Environmental Review and the Office of Performance Strategy and
977 Budget.
978

979 **Community Service Areas (CSA)**

980 The CSA Program is housed in the Department of Natural Resources and Parks. This program promotes robust
981 public engagement that informs, involves, and empowers people and communities in unincorporated urban areas
982 and in the ((#))Rural Area and Natural Resource Lands of King County.

983

984 **Rural Area geography (See also Rural Area Zoning)**

985 The Growth Management Act requires that counties designate a Rural Area in order to conserve the rural character
986 and quality of the existing rural lands in Washington. King County's Rural Area refers collectively to the geography
987 that primarily contains the following land use categories – Rural Towns, Rural Neighborhood Commercial Centers,
988 Rural Area (RA-2.5, ~~((Rural Area-))~~RA-5, ~~((Rural Area-))~~RA-10 and ~~((Rural Area-))~~RA-20) in unincorporated King
989 County. The Rural Area geography also includes a limited amount of acreage with land use categories such as
990 Industrial, Commercial Outside of Center, etc. The Rural Area geography does not include designated Natural
991 Resource Lands, although resource activities occur on them. The Rural Area contains very low-density residential
992 development, commercial and industrial development, farms, forests, watersheds crucial for both fisheries and flood
993 hazard management, mining areas and towns, historic sites and buildings, archaeological sites and regionally
994 important recreation areas. (See Chapter 3: Rural Areas and Natural Resource Lands)

995

996 **Rural Area ((Z))zoning**

997 The ((#))Rural Area zone refers to the ((zoning categories allowed in the Rural Area geography, which include))
998 Rural Area 2.5, Rural Area 5, Rural Area 10 and Rural Area 20((, Rural Towns and Rural Neighborhood
999 Commercial Centers))zoning categories. This zoning is meant to provide an area-wide, long-term, rural character
1000 and to minimize land use conflicts with nearby agricultural, forest or mineral extraction production districts. These
1001 purposes are accomplished by: 1) limiting residential densities and permitted uses to those that are compatible with
1002 rural character and nearby resource production districts and are able to be adequately supported by rural service
1003 levels; 2) allowing small scale farming and forestry activities and tourism and recreation uses which can be
1004 supported by rural service levels and which are compatible with rural character; and 3) increasing required setbacks
1005 to minimize conflicts with adjacent agriculture, forest or mineral zones.
1006

1007 **Traditional Rural Development**

1008 In King County, traditional rural land uses could include, but are not limited to: low density residential uses; small
1009 scale farming, forestry and mineral extraction; small, neighborhood churches; feed and grain stores; the keeping of
1010 horses and livestock; cottage industries, crafts and trades that support the residents of the Rural Area and Natural
1011 Resource Lands and/or the needs of ~~((the-))~~ natural resource production ~~((-areas))~~; and public and private facilities
1012 necessary to serve rural homes such as utility installations or public schools. In general, the rural development
1013 pattern in King County has historically been comprised of houses, barns, fences and cultivated fields, but natural
1014 features and open spaces are the predominant visual image.

1015

R. Dembowski → AM#3
 Motion Carried

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12/2/16
 Rural Area Terms

Sponsor: Dembowski

ea/cmj

Proposed No.: 2016-0155

1 **AMENDMENT TO PROPOSED ORDINANCE 2016-0155, VERSION 2**

2 On page 19, after line 402, insert:

3 "SECTION 21. Ordinance 10870, Section 330, as amended, and K.C.C.

4 21A.08.030, are each hereby amended to read as follows:

5 A. Residential land uses.

KEY		RESOURCE			R U R A L	RESIDENTIAL				COMMERCIAL/INDUSTRIAL							
P-Permitted Use		A	F	M	R	* R	U	R	N	B	C	B	R	B	O	I	
C-Conditional Use		G	O	I	U	U	R	E	E	U	O	U	E	U	F	N	
S-Special Use	Z	R	R	N	R	R	S	B	S	I	S	M	S	G	S	F	D
	O	I	E	E	A	B	E	A	I	G	I	M	I	I	I	U	
	N	C	S	R	L	A	R	N	D	H	N	U	N	O	N	C	S
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		U			E				I	H		Y					A
		R			A				A	O							L
		E							L	O							
										D							
SIC #	SPECIFIC LAND USE	A	F	M	RA	UR	R1-8	R12-48	NB	CB	RB	O	I				

	DWELLING UNITS, TYPES:											
*	Single Detached	P C12	P2	P C12	P C12	P C12	P C12	P15				
*	Townhouse			C4	C4	P11 C12	P	P3	P3	P3	P3	
*	Apartment			C4	C4	P5 C5	P	P3	P3	P3	P3	
*	Mobile Home Park			S13		C8	P					
*	Cottage Housing					P15						
	GROUP RESIDENCES:											
*	Community Residential Facility-I			C	C	P14.a C	P	P3	P3	P3	P3	
*	Community Residential Facility-II					P14.b	P	P3	P3	P3	P3	
*	Dormitory			C6	C6	C6	P					
*	Senior Citizen Assisted Housing				P4	P4	P	P3	P3	P3	P3	
	ACCESSORY USES:											
*	Residential Accessory Uses	P7 P17	P7	P7	P7	P7	P7	P7	P7	P7	P7	P7
*	Home Occupation	P18	P18	P18	P18	P18	P18	P18	P18	P18	P18	P18
*	Home Industry	C		C	C	C						
	TEMPORARY LODGING:											
7011	Hotel/Motel (1)								P	P	P	
*	Bed and Breakfast Guesthouse	P9		P9	P9	P9	P9	P9	P10	P10		
7041	Organization Hotel/Lodging Houses									P		
GENERAL CROSS		Land Use Table Instructions, see K.C.C. 21A.08.020 and 21A.02.070;										
REFERENCES:		Development Standards, see K.C.C. chapters 21A.12 through 21A.30; General Provisions, see K.C.C. chapters 21A.32 through 21A.38; Application and Review Procedures, see K.C.C. chapters 21A.40 through 21A.44;										

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B. Development conditions.

1. Except bed and breakfast guesthouses.

2. In the forest production district, the following conditions apply:

a. Site disturbance associated with development of any new residence shall be limited to three acres. Site disturbance shall mean all land alterations including, but not limited to, grading, utility installation, landscaping, clearing for crops, on-site sewage disposal systems and driveways. Additional site disturbance for agriculture, including raising livestock, up to the smaller of thirty-five percent of the lot or seven acres, may be approved only if a farm management plan is prepared in accordance with K.C.C. chapter 21A.30. Animal densities shall be based on the area devoted to animal care and not the total area of the lot;

b. A forest management plan shall be required for any new residence in the forest production district, that shall be reviewed and approved by the King County department of natural resources and parks before building permit issuance; and

c. The forest management plan shall incorporate a fire protection element that includes fire safety best management practices developed by the department.

3. Only as part of a mixed use development subject to the conditions of K.C.C. chapter 21A.14, except that in the NB zone on properties with a land use designation of commercial outside of center (CO) in the urban areas, stand-alone townhouse developments are permitted subject to K.C.C. 21A.12.040, 21A.14.030, 21A.14.060 and 21A.14.180.

4. Only in a building listed on the National Register as an historic site or designated as a King County landmark subject to K.C.C. chapter 21A.32.

29 5.a. In the R-1 zone, apartment units are permitted, if:

30 (1) At least fifty percent of the site is constrained by unbuildable critical
31 areas. For purposes of this subsection, unbuildable critical areas includes wetlands,
32 aquatic areas and slopes forty percent or steeper and associated buffers; and

33 (2) The density does not exceed a density of eighteen units per acre of net
34 buildable area.

35 b. In the R-4 through R-8 zones, apartment units are permitted if the density
36 does not exceed a density of eighteen units per acre of net buildable area.

37 c. If the proposal will exceed base density for the zone in which it is proposed,
38 a conditional use permit is required.

39 6. Only as accessory to a school, college, university or church.

40 7.a. Accessory dwelling units:

41 (1) Only one accessory dwelling per primary single detached dwelling unit;

42 (2) Only in the same building as the primary dwelling unit on:

43 (a) an urban lot that is less than five thousand square feet in area;

44 (b) except as otherwise provided in subsection B.7.a.(5) of this section, a
45 rural lot that is less than the minimum lot size; or

46 c. a lot containing more than one primary dwelling;

47 (3) The primary dwelling unit or the accessory dwelling unit shall be owner
48 occupied;

49 (4)(a) Except as otherwise provided in subsection B.7.a(5) of this section, one
50 of the dwelling units shall not exceed one thousand square feet of heated floor area
51 except when one of the dwelling units is wholly contained within a basement or attic; and

52 (b) When the primary and accessory dwelling units are located in the same
53 building, or in multiple buildings connected by a breezeway or other structure, only one
54 entrance may be located on each street;

55 (5) On a site zoned RA:

56 (a) If one transferable development right is purchased from the ~~((#))~~Rural
57 ~~((a))~~Area or Natural Resource Lands under K.C.C. chapter 21A.37, the smaller of the
58 dwelling units is permitted a maximum floor area up to one thousand five hundred square
59 feet; and

60 (b) If one transferable development right is purchased from the ~~((#))~~Rural
61 ~~((a))~~Area or Natural Resource Lands under K.C.C. chapter 21A.37, a detached accessory
62 dwelling unit is allowed on an RA-5 zoned lot that is at least two and one-half acres and
63 less than three and three-quarters acres;

64 (6) One additional off-street parking space shall be provided;

65 (7) The accessory dwelling unit shall be converted to another permitted use or
66 shall be removed if one of the dwelling units ceases to be owner occupied; and

67 (8) An applicant seeking to build an accessory dwelling unit shall file a notice
68 approved by the department of executive services, records and licensing services
69 division, that identifies the dwelling unit as accessory. The notice shall run with the land.
70 The applicant shall submit proof that the notice was filed before the department shall
71 approve any permit for the construction of the accessory dwelling unit. The required
72 contents and form of the notice shall be set forth in administrative rules. If an accessory
73 dwelling unit in a detached building in the rural zone is subsequently converted to a
74 primary unit on a separate lot, neither the original lot nor the new lot may have an

75 additional detached accessory dwelling unit constructed unless the lot is at least twice the
76 minimum lot area required in the zone; and

77 (9) Accessory dwelling units and accessory living quarters are not allowed in
78 the F zone.

79 b. One single or twin engine, noncommercial aircraft shall be permitted only
80 on lots that abut, or have a legal access that is not a county right-of-way, to a waterbody
81 or landing field, but only if there are:

82 (1) no aircraft sales, service, repair, charter or rental; and

83 (2) no storage of aviation fuel except that contained in the tank or tanks of the
84 aircraft.

85 c. Buildings for residential accessory uses in the RA and A zone shall not
86 exceed five thousand square feet of gross floor area, except for buildings related to
87 agriculture or forestry.

88 8. Mobile home parks shall not be permitted in the R-1 zones.

89 9. Only as accessory to the permanent residence of the operator, and:

90 a. Serving meals shall be limited to paying guests; and

91 b. The number of persons accommodated per night shall not exceed five,
92 except that a structure that satisfies the standards of the International Building Code as
93 adopted by King County for R-1 occupancies may accommodate up to ten persons per
94 night.

95 10. Only if part of a mixed use development, and subject to the conditions of
96 subsection B.9. of this section.

97 11. Townhouses are permitted, but shall be subject to a conditional use permit if
98 exceeding base density.

99 12. Required before approving more than one dwelling on individual lots,
100 except on lots in subdivisions, short subdivisions or binding site plans approved for
101 multiple unit lots, and except as provided for accessory dwelling units in subsection B.7.
102 of this section.

103 13. No new mobile home parks are allowed in a rural zone.

104 14.a. Limited to domestic violence shelter facilities.

105 b. Limited to domestic violence shelter facilities with no more than eighteen
106 residents or staff.

107 15. Only in the R4-R8 zones limited to:

108 a. developments no larger than one acre;

109 b. not adjacent to another cottage housing development such that the total
110 combined land area of the cottage housing developments exceeds one acre;

111 c. All units must be cottage housing units with no less than three units and no
112 more than sixteen units, provided that if the site contains an existing home that is not
113 being demolished, the existing house is not required to comply with the height limitation
114 in K.C.C. 21A.12.020.B.25. or the floor area and footprint limits in K.C.C.
115 21A.14.025.B; and

116 d. Before filing an application with the department, the applicant shall hold a
117 community meeting in accordance with K.C.C. 20.20.035.

118 16. The development for a detached single-family residence shall be consistent
119 with the following:

- 120 a. The lot must have legally existed before March 1, 2005;
- 121 b. The lot has a Comprehensive Plan land use designation of Rural
122 Neighborhood Commercial Center or Rural Area; and
- 123 c. The standards of this title for the RA-5 zone shall apply.
- 124 17. Housing for agricultural employees who are employed by the owner or
125 operator of the site year-round as follows:
- 126 a. Not more than:
- 127 (1) One agricultural employee dwelling unit on a site under twenty acres;
- 128 (2) Two agricultural employee dwelling units on a site between twenty acres
129 and fifty acres;
- 130 (3) Three agricultural employee dwelling units on a site greater than fifty
131 acres and less than one-hundred acres; and
- 132 (4) On sites one-hundred acres and larger one additional agricultural
133 employee dwelling unit for each additional one hundred acres;
- 134 b. The primary use of the site shall be agricultural in SIC Industry Group No.
135 01-Growing and Harvesting Crops or SIC Industry Group No. 02-Raising Livestock and
136 Small Animals. If the primary use of the site changes to a nonagricultural use, all
137 agricultural employee dwelling units shall be removed;
- 138 c. The applicant shall file with the department of executive services, records
139 and licensing services division, a notice approved by the department that identifies the
140 agricultural employee dwelling units as accessory and that the dwelling units shall only
141 be occupied by agricultural employees who are employed by the owner or operator year-
142 round. The notice shall run with the land. The applicant shall submit to the department

143 proof that the notice was filed with the department of executive services, records and
 144 licensing services division, before the department approves any permit for the
 145 construction of agricultural employee dwelling units;

146 d. An agricultural employee dwelling unit shall not exceed a floor area of one
 147 thousand square feet and may be occupied by no more than eight unrelated agricultural
 148 employees;

149 e. One off-street parking space shall be provided for each agricultural
 150 employee dwelling unit; and

151 f. The agricultural employee dwelling units shall be constructed in compliance
 152 with K.C.C. Title 16.

153 18. Allowed if consistent with K.C.C. chapter 21A.30.

154 SECTION 22. Ordinance 10870, Section 332, as amended, and K.C.C.
 155 21A.08.050, are each hereby amended to read as follows:

156 A. General services land uses.

KEY	RESOURCE	R		RESIDENTIAL				COMMERCIAL/INDUSTRIAL									
		U	R	U	R	U	R	N	B	C	B	R	B	O	I		
P-Permitted Use	A	F	M	R	U	R	U	R	N	B	C	B	R	B	O	I	
C-Conditional Use	G	O	I	U	R	E	R	E	E	U	O	U	E	U	F	N	
S-Special Use	Z	R	R	N	R	B	S	B	S	I	S	M	S	G	S	F	D
	O	I	E	E	A	A	E	A	I	G	I	M	I	I	I	I	U
	N	C	S	R	L	N	R	N	D	H	N	U	N	O	N	C	S
	E	U	T	A		V		E	B	E	N	E	N	E	E	T	
	L		L	A	E		N	O	S	I	S	A	S		R		
	T			R			T	R	S	T	S	L	S		I		
	U			E			I	H	Y						A		

		R			A			A	O				L
		E						L	O				D
SIC#	SPECIFIC LAND USE	A	F	M	RA	UR	R1-8	R12-48	NB	CB	RB	O	I
	PERSONAL SERVICES:												
72	General Personal Service						C25 C37	C25 C37	P	P	P	P3	P3
7216	Drycleaning Plants												P
7218	Industrial Launderers												P
7261	Funeral Home/Crematory					C4	C4	C4		P	P		
*	Cemetery, Columbarium or Mausoleum				P24 C5 and 31	P24 C5	P24 C5	P24 C5	P24	P24	P24 C5	P24	
*	Day Care I	P6			P6	P6	P6	P	P	P	P	P7	P7
*	Day Care II				P8 C	P8 C	P8 C	P8 C	P	P	P	P7	P7
074	Veterinary Clinic	P9			P9 C10 and 31	P9 C10			P10	P10	P10		P
753	Automotive Repair (1)								P11	P	P		P
754	Automotive Service								P11	P	P		P
76	Miscellaneous Repair	P33			P32 P33	P32	P32	P32	P32	P	P		P
866	Church, Synagogue, Temple				P12 C27 and 31	P12 C	P12 C	P12 C	P	P	P	P	
83	Social Services (2)				P12	P12	P12	P12	P	P	P	P	

				P13 C31	P13 C	P13 C	P13 C					
0752	Animal specialty services			C P35 P36	C			P	P	P	P	P
*	Stable	P14 C		P14 C31	P14 C	P 14 C						
*	Commercial Kennel or Commercial Cattery	P42		C43	C43				C43	P43		
*	Theatrical Production Services								P30	P28		
*	Artist Studios			P28	P28	P28	P28	P	P	P	P29	P
*	Interim Recycling Facility			P21	P21	P21	P21	P22	P22	P	P21	P
*	Dog training facility	C34		C34	C34			P	P	P		P
	HEALTH SERVICES:											
801-04	Office/Outpatient Clinic			P12 C 13a	P12 C13a	P12 C13 a C37	P12 C13a C37	P	P	P	P	P
805	Nursing and Personal Care Facilities						C		P	P		
806	Hospital					C13 a	C13a		P	P	C	
807	Medical/Dental Lab								P	P	P	P
808-09	Miscellaneous Health								P	P	P	
	EDUCATION SERVICES:											
*	Elementary School			P39 P40	P	P	P		P16 P40	P16 P40	P16 P40	
*	Middle/Junior High			P40	P	P	P		P16	P16	P16	

	School				C39 and 31					C40	C40	C40	
*	Secondary or High School				C39 and 31 C41 and 31	P26	P26	P26		P16 C15	P16 C15	P16 P16	
*	Vocational School					P13a C	P13a C	P13a C			P15	P17	P
*	Specialized Instruction School			P18	P19 C20 and 31	P19 C20	P19 C20	P19 C20	P	P	P	P17	P 38
*	School District Support Facility					P23 C	P23 C	P23 C	C15	P15	P15	P15	P15
GENERAL CROSS		Land Use Table Instructions, see K.C.C. 21A.08.020 and 21A.02.070;											
REFERENCES:		Development Standards, see K.C.C. chapters 21A.12 through 21A.30;											
		General Provisions, see K.C.C. chapters 21A.32 through 21A.38;											
		Application and Review Procedures, see K.C.C. chapters 21A.40 through 21A.44;											
		(*)Definition of this specific Land Use, see K.C.C. chapter 21A.06.											

157

B. Development conditions.

158

1. Except SIC Industry No. 7534-Tire Retreading, see manufacturing permitted

159

use table.

160

2. Except SIC Industry Group Nos.:

161

a. 835-Day Care Services, and

162

b. Community residential facilities.

163

3. Limited to SIC Industry Group and Industry Nos.:

164

a. 723-Beauty Shops;

165

b. 724-Barber Shops;

- 166 c. 725-Shoe Repair Shops and Shoeshine Parlors;
- 167 d. 7212-Garment Pressing and Agents for Laundries and Drycleaners; and
- 168 e. 217-Carpet and Upholstery Cleaning.
- 169 4. Only as accessory to a cemetery, and prohibited from the UR zone only if the
- 170 property is located within a designated unincorporated Rural Town.
- 171 5. Structures shall maintain a minimum distance of one hundred feet from
- 172 property lines adjoining rural area and residential zones.
- 173 6. Only as accessory to residential use, and:
- 174 a. Outdoor play areas shall be completely enclosed by a solid wall or fence,
- 175 with no openings except for gates, and have a minimum height of six feet; and
- 176 b. Outdoor play equipment shall maintain a minimum distance of twenty feet
- 177 from property lines adjoining rural area and residential zones.
- 178 7. Permitted as an accessory use. See commercial/industrial accessory, K.C.C.
- 179 21A.08.060.A.
- 180 8. Only as a reuse of a public school facility subject to K.C.C. chapter 21A.32,
- 181 or an accessory use to a school, church, park, sport club or public housing administered
- 182 by a public agency, and:
- 183 a. Outdoor play areas shall be completely enclosed by a solid wall or fence,
- 184 with no openings except for gates and have a minimum height of six feet;
- 185 b. Outdoor play equipment shall maintain a minimum distance of twenty feet
- 186 from property lines adjoining rural area and residential zones;
- 187 c. Direct access to a developed arterial street shall be required in any
- 188 residential zone; and

189 d. Hours of operation may be restricted to assure compatibility with
190 surrounding development.

191 9. As a home occupation only, but the square footage limitations in K.C.C.
192 chapter 21A.30 for home occupations apply only to the office space for the veterinary
193 clinic, and:

194 a. Boarding or overnight stay of animals is allowed only on sites of five acres
195 or more;

196 b. No burning of refuse or dead animals is allowed;

197 c. The portion of the building or structure in which animals are kept or treated
198 shall be soundproofed. All run areas, excluding confinement areas for livestock, shall be
199 surrounded by an eight-foot-high solid wall and the floor area shall be surfaced with
200 concrete or other impervious material; and

201 d. The provisions of K.C.C. chapter 21A.30 relative to animal keeping are met.

202 10.a. No burning of refuse or dead animals is allowed;

203 b. The portion of the building or structure in which animals are kept or treated
204 shall be soundproofed. All run areas, excluding confinement areas for livestock, shall be
205 surrounded by an eight-foot-high solid wall and the floor area shall be surfaced with
206 concrete or other impervious material; and

207 c. The provisions of K.C.C. chapter 21A.30 relative to animal keeping are met.

208 11. The repair work or service shall only be performed in an enclosed building,
209 and no outdoor storage of materials. SIC Industry No. 7532-Top, Body, and Upholstery
210 Repair Shops and Paint Shops is not allowed.

211 12. Only as a reuse of a public school facility subject to K.C.C. chapter 21A.32.
212 Before filing an application with the department, the applicant shall hold a community
213 meeting in accordance with K.C.C. 20.20.035.

214 13.a. Except as otherwise provided in 13.b of this subsection, only as a reuse of
215 a surplus nonresidential facility subject to K.C.C. chapter 21A.32.

216 b. Allowed for a social service agency on a site in the NB zone that serves
217 transitional or low-income housing located within three hundred feet of the site on which
218 the social service agency is located.

219 c. Before filing an application with the department, the applicant shall hold a
220 community meeting in accordance with K.C.C. 20.20.035.

221 14. Covered riding arenas are subject to K.C.C. 21A.30.030 and shall not
222 exceed twenty thousand square feet, but stabling areas, whether attached or detached,
223 shall not be counted in this calculation.

224 15. If located outside of the urban growth area, limited to projects that are of a
225 size and scale designed to primarily serve the ~~((R))Rural ((A))Area~~ and Natural Resource
226 Lands and shall be located within a rural town.

227 16. If located outside of the urban growth area, shall be designed to primarily
228 serve the ~~((R))Rural ((A))Area~~ and Natural Resource Lands and shall be located within a
229 rural town. In CB, RB and O, for K-12 schools with no more than one hundred students.

230 17. All instruction must be within an enclosed structure.

231 18. Limited to resource management education programs.

232 19. Only as accessory to residential use, and:

233 a. Students shall be limited to twelve per one-hour session;

234 b. Except as provided in subsection c. of this subsection, all instruction must
235 be within an enclosed structure;

236 c. Outdoor instruction may be allowed on properties at least two and one-half
237 acres in size. Any outdoor activity must comply with the requirements for setbacks in
238 K.C.C. chapter 21A.12; and

239 d. Structures used for the school shall maintain a distance of twenty-five feet
240 from property lines adjoining rural area and residential zones.

241 20. Subject to the following:

242 a. Structures used for the school and accessory uses shall maintain a minimum
243 distance of twenty-five feet from property lines adjoining residential zones;

244 b. On lots over two and one-half acres:

245 (1) Retail sale of items related to the instructional courses is permitted, if total
246 floor area for retail sales is limited to two thousand square feet;

247 (2) Sale of food prepared in the instructional courses is permitted with
248 Seattle-King County department of public health approval, if total floor area for food
249 sales is limited to one thousand square feet and is located in the same structure as the
250 school; and

251 (3) Other incidental student-supporting uses are allowed, if such uses are
252 found to be both compatible with and incidental to the principal use; and

253 c. On sites over ten acres, located in a designated Rural Town and zoned any
254 one or more of UR, R-1 and R-4:

255 (1) Retail sale of items related to the instructional courses is permitted,
256 provided total floor area for retail sales is limited to two thousand square feet;

257 (2) Sale of food prepared in the instructional courses is permitted with
258 Seattle-King County department of public health approval, if total floor area for food
259 sales is limited to one thousand seven hundred fifty square feet and is located in the same
260 structure as the school;

261 (3) Other incidental student-supporting uses are allowed, if the uses are found
262 to be functionally related, subordinate, compatible with and incidental to the principal
263 use;

264 (4) The use shall be integrated with allowable agricultural uses on the site;

265 (5) Advertised special events shall comply with the temporary use
266 requirements of this chapter; and

267 (6) Existing structures that are damaged or destroyed by fire or natural event,
268 if damaged by more than fifty percent of their prior value, may reconstruct and expand an
269 additional sixty-five percent of the original floor area but need not be approved as a
270 conditional use if their use otherwise complies with development condition B.20.c. of this
271 section and this title.

272 21. Limited to:

273 a. drop box facilities accessory to a public or community use such as a school,
274 fire station or community center; or

275 b. in the RA zone, a facility accessory to a retail nursery, garden center and
276 farm supply store that accepts earth materials, vegetation, organic waste, construction and
277 demolition materials or source separated organic materials, if:

278 (1) the site is five acres or greater;

279 (2) all material is deposited into covered containers or onto covered

280 impervious areas;

281 (3) the facility and any driveways or other access to the facility maintain a

282 setback of at least twenty five feet from adjacent properties;

283 (4) the total area of the containers and covered impervious area is ten

284 thousand square feet or less;

285 (5) ten feet of type II landscaping is provided between the facility and

286 adjacent properties;

287 (6) no processing of the material is conducted on site; and

288 (7) access to the facility is not from a local access street.

289 22. With the exception of drop box facilities for the collection and temporary

290 storage of recyclable materials, all processing and storage of material shall be within

291 enclosed buildings. Yard waste processing is not permitted.

292 23. Only if adjacent to an existing or proposed school.

293 24. Limited to columbariums accessory to a church, but required landscaping

294 and parking shall not be reduced.

295 25. Not permitted in R-1 and limited to a maximum of five thousand square feet

296 per establishment and subject to the additional requirements in K.C.C. 21A.12.230.

297 26.a. New high schools permitted in the rural and the urban residential and

298 urban reserve zones shall be subject to the review process in K.C.C. 21A.42.140.

299 b. Renovation, expansion, modernization, or reconstruction of a school, or the

300 addition of relocatable facilities, is permitted.

301 27. Limited to projects that do not require or result in an expansion of sewer
302 service outside the urban growth area. In addition, such use shall not be permitted in the
303 RA-20 zone.

304 28. Only as a reuse of a surplus nonresidential facility subject to K.C.C. chapter
305 21A.32 or as a joint use of an existing public school facility.

306 29. All studio use must be within an enclosed structure.

307 30. Adult use facilities shall be prohibited within six hundred sixty feet of any
308 rural area and residential zones, any other adult use facility, school, licensed daycare
309 centers, parks, community centers, public libraries or churches that conduct religious or
310 educational classes for minors.

311 31. Subject to review and approval of conditions to comply with trail corridor
312 provisions of K.C.C. chapter 21A.14 when located in an RA zone.

313 32. Limited to repair of sports and recreation equipment:

314 a. as accessory to a recreation or multiuse park in the urban growth area; or

315 b. as accessory to a park and limited to a total floor area of seven hundred fifty
316 square feet.

317 33. Accessory to agricultural or forestry uses provided:

318 a. the repair of tools and machinery is limited to those necessary for the
319 operation of a farm or forest.

320 b. the lot is at least five acres.

321 c. the size of the total repair use is limited to one percent of the lot size up to a
322 maximum of five thousand square feet unless located in a farm structure, including but not
323 limited to barns, existing as of December 31, 2003.

- 324 34. Subject to the following:
- 325 a. the lot is at least five acres;
- 326 b. in the A zones, area used for dog training shall be located on portions of
- 327 agricultural lands that are unsuitable for other agricultural purposes, such as areas within
- 328 the already developed portion of such agricultural lands that are not available for direct
- 329 agricultural production or areas without prime agricultural soils;
- 330 c. structures and areas used for dog training shall maintain a minimum distance
- 331 of seventy-five feet from property lines; and
- 332 d. all training activities shall be conducted within fenced areas or in indoor
- 333 facilities. Fences must be sufficient to contain the dogs.
- 334 35. Limited to animal rescue shelters and provided that:
- 335 a. the property shall be at least four acres;
- 336 b. buildings used to house rescued animals shall be no less than fifty feet from
- 337 property lines;
- 338 c. outdoor animal enclosure areas shall be located no less than thirty feet from
- 339 property lines and shall be fenced in a manner sufficient to contain the animals;
- 340 d. the facility shall be operated by a nonprofit organization registered under the
- 341 Internal Revenue Code as a 501(c)(3) organization; and
- 342 e. the facility shall maintain normal hours of operation no earlier than 7 a.m. and
- 343 no later than 7 p.m.
- 344 36. Limited to kennel-free dog boarding and daycare facilities, and:
- 345 a. the property shall be at least four and one-half acres;

346 b. buildings housing dogs shall be no less than seventy-five feet from property
347 lines;

348 c. outdoor exercise areas shall be located no less than thirty feet from property
349 lines and shall be fenced in a manner sufficient to contain the dogs;

350 d. the number of dogs allowed on the property at any one time shall be limited to
351 the number allowed for hobby kennels, as provided in K.C.C. 11.04.060.B; and

352 e. training and grooming are ancillary services that may be provided only to
353 dogs staying at the facility; and

354 f. the facility shall maintain normal hours of operation no earlier than 7 a.m. and
355 no later than 7 p.m.

356 37. Not permitted in R-1 and subject to the additional requirements in K.C.C.
357 21A.12.250.

358 38. Driver training is limited to driver training schools licensed under chapter
359 46.82 RCW.

360 39. A school may be located outside of the urban growth area only if allowed
361 under King County Comprehensive Plan policies.

362 40. Only as a reuse of an existing public school.

363 41. A high school may be allowed as a reuse of an existing public school if
364 allowed under King County Comprehensive Plan policies.

365 42. Commercial kennels and commercial catteries in the A zone are subject to the
366 following:

367 a. Only as a home occupation, but the square footage limitations in K.C.C.
368 chapter 21A.30.085 for home occupations apply only to the office space for the commercial
369 kennel or commercial cattery; and

370 b. Subject to K.C.C. 21A.30.020, except:

371 (1) A building or structure used for housing dogs or cats and any outdoor runs
372 shall be set back one hundred and fifty feet from property lines;

373 (2) The portion of the building or structure in which the dogs or cats are kept
374 shall be soundproofed;

375 (3) Impervious surface for the kennel or cattery shall not exceed twelve
376 thousand square feet; and

377 (4) Obedience training classes are not allowed except as provided in subsection
378 B.34. of this section.

379 43. Commercial kennels and commercial catteries are subject to K.C.C.
380 21A.30.020."

381

382 Renumber the remaining sections consecutively and correct any internal references
383 accordingly.

384

385 ***EFFECT: Clarifies the 2016 Comp Plan transmittal's proposed use of the terms***
386 ***"Rural Area" and "Natural Resource Lands" in order to be consistent with existing***
387 ***policy intent. Strikethrough formatting in the attachment is included for illustrative***
388 ***purposes only and will be removed after adoption. Relates to Amendment A-3.***

KC - Withdrawals

12

18427

A-4

12/4/16
U-181 Fully Contained
Communities

Sponsor: Lambert

cmj

Proposed No.: 2016-0155

1 AMENDMENT TO ATTACHMENT A TO PROPOSED ORDINANCE 2016-0155,

2 VERSION 2

3 **Chapter 2, Urban Communities:**

4 On page 2-32, beginning on line 1117, strike lines 1117 through 1118.

5

6 **EFFECT: *Removes current prohibition on new Fully Contained Communities in King***

7 ***County.***

8 ***The amendment would change the policy from the substitute version as follows***

9 ***(strikethrough formatting is included for illustrative purposes only):***

10 ~~((U-181 ————— Except for existing Fully Contained Community designations, no new Fully~~
11 ~~Contained Communities shall be approved in King County.))~~

12

12

15401

KL → Am #A-5 18427

PUR
RD
KL
Aye

12

R. Dembaraski "NO"
JMED
DU
CB
JKW

A-5

12/4/16

R-324 – nonresidential uses in the Rural Area

Sponsor: Lambert

cmj

Proposed No.: 2016-0155

1 AMENDMENT TO ATTACHMENT A TO PROPOSED ORDINANCE 2016-0155,

2 VERSION 2

3 **Chapter 3, Rural Areas and Natural Resource Lands:**

4 On page 3-25, beginning on line 928, strike lines 928 through 934, and insert:

5 "R-324

Nonresidential uses in the Rural Area shall be limited to those that:

- 6 a. Provide convenient local products and services;
- 7 b. Require location in a Rural Area;
- 8 c. Support natural resource-based industries;
- 9 d. Provide adaptive reuse of significant historic resources; or
- 10 e. Provide recreational and tourism opportunities that are compatible
- 11 with the surrounding Rural Area."
- 12

— CB — asked questions

— Ivan Miller, OPSB - Comp Plan Mgr.

— DU —

— CB —

— Darren Cornell, PAD

13 **EFFECT:** Amends policy R-324 (related to nonresidential uses in the Rural Area) to

14 remove the "for nearby residents" limitation for local products and services that are

15 provided in the Rural Area. The amendment would change the policy from the

16 substitute version as follows (strikethrough formatting is included for illustrative

17 purposes only):

18 R-324

Nonresidential uses in the Rural Area shall be limited to those that:

- 19 a. Provide convenient local products and services (~~for nearby residents~~);
- 20 b. Require location in a Rural Area;
- 21 c. Support natural resource-based industries;
- 22 d. Provide adaptive reuse of significant historic resources; or
- 23 e. Provide recreational and tourism opportunities that are compatible with
- 24 the surrounding Rural Area.

— DU
— KL

KL → Am#A-6
passed

18427

12

A-6

11/29/16
R-650a - FFF

cmj Sponsor: Lambert
Proposed No.: 2016-0155

1 **AMENDMENT TO ATTACHMENT A TO PROPOSED ORDINANCE 2016-0155,**

2 **VERSION 2**

3 **Chapter 3, Rural Areas and Natural Resource Lands:**

4 On page 3-52, beginning on line 2185, strike lines 2185 through 2199, and insert

5 "R-650a

The Snoqualmie Valley Agricultural Production District is the first Agricultural Production District to undergo a watershed planning effort called for in R-650. King County shall implement the recommendations of the Snoqualmie Fish, Farm and Flood Advisory Committee. The recommendations of the task forces and other actions identified in the final Advisory Committee Report and Recommendations will form the basis for a watershed planning approach to balance fish, farm and flood interests across the Snoqualmie Valley Agricultural Production District and an agreement on protecting a defined number of acres of agricultural land. The Advisory Committee, or a successor committee, will monitor progress of the task forces and will reconvene to evaluate the watershed planning approach to balancing interests prior to the next Comprehensive Plan Update. The policy issues and recommendations outlined in the Snoqualmie Fish, Farm, Flood Advisory Committee Report and Recommendations are largely specific to the Snoqualmie Valley and are not intended to be applied broadly in other Agricultural Production Districts. Future Fish, Farm, Flood efforts focused in other Agricultural Production Districts will need to go through their own processes to identify barriers to success for all stakeholders in these geographic areas. R-649 continues to apply to the Snoqualmie Valley Agricultural Production District until the watershed planning effort outlined in the Fish, Farm and Flood recommendations is complete. A policy reflecting the outcome of this effort shall be included in the next four-year cycle Comprehensive Plan Update."

— R. Dembowski
— C. Jensen
answered
question of
R. Dembowski

28

51

29 **EFFECT: Refines policy R-650a (related to ongoing Farm Fish Flood work) to make**
30 **it clear that the Snoqualmie Valley FFF work will not apply to other APDs. The**
31 **amendment would change the policy from the substitute version as follows**
32 **(strikethrough formatting is included for illustrative purposes only):**

33 R-650a The Snoqualmie Valley Agricultural Production District is the first Agricultural
34 Production District to undergo a watershed planning effort called for in R-650.
35 King County shall implement the recommendations of the Snoqualmie Fish, Farm
36 and Flood Advisory Committee. The recommendations of the task forces and
37 other actions identified in the final Advisory Committee Report and
38 Recommendations will form the basis for a watershed planning approach to
39 balance fish, farm and flood interests across the Snoqualmie Valley Agricultural
40 Production District and an agreement on protecting a defined ~~((amount))~~ **number**
41 **of acres** of agricultural land. The Advisory Committee, or a successor committee,
42 will monitor progress of the task forces and will reconvene to evaluate the
43 watershed planning approach to balancing interests prior to the next
44 Comprehensive Plan Update. **The policy issues and recommendations**
45 **outlined in the Snoqualmie Fish, Farm, Flood Advisory Committee Report**
46 **and Recommendations are largely specific to the Snoqualmie Valley and are**
47 **not intended to be applied broadly in other Agricultural Production Districts.**
48 **Future Fish, Farm, Flood efforts focused in other Agricultural Production**
49 **Districts will need to go through their own processes to identify barriers to**
50 **success for all stakeholders in these geographic areas.** R-649 continues to
51 apply to the Snoqualmie Valley Agricultural Production District until the watershed
52 planning effort outlined in the Fish, Farm and Flood recommendations is
53 complete. A policy reflecting the outcome of this effort shall be included in the next
54 four-year cycle Comprehensive Plan Update.

12

K1 → Am # A-7
Amendment passed
to Am # A-7

AM A-7
passed
as amends

12/4/16
F-208 - public spending

Verbal
Amc

18427 A-7

cmj Sponsor: Lambert
Proposed No.: 2016-0155

1 AMENDMENT TO ATTACHMENT A TO PROPOSED ORDINANCE 2016-0155.

2 VERSION 2

3 Chapter 9, Services, Facilities and Utilities:

4 On page 9-5, beginning on line 130, strike lines 130 through 132, and insert:

5 "F-208 Public spending to support growth should be directed to the Urban
6 and Growth Area or to maintain existing unincorporated infrastructure, and
7 should be prioritized through the Capital Facility Plan to comply with the
8 concurrency requirements of the Growth Management Act."

— C. Jensen,
Council Staff,
briefed the
Council.

— Darren Carnell,
Pao

10 **EFFECT:** Amends policy F-208 by adding "maintaining existing infrastructure" to
11 how public spending to support growth should be directed. The amendment would
12 change the policy from the substitute version as follows (strikethrough formatting is
13 included for illustrative purposes only):

— Ivan Miller,
OPSB

14 F-208 Public spending to support growth should be directed to the Urban Growth
15 Area and to maintain existing unincorporated infrastructure, and should
16 be prioritized ((and coordinated)) through the Capital Facility Plan((s)) to
17 comply with the concurrency requirements of the Growth Management Act.
18

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1914
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1920

KL → AM#A-8
passed

18427

12

A-8

12/4/16

F-209a – unincorporated area
services

Sponsor: Lambert

cmj

Proposed No.: 2016-0155

1 **AMENDMENT TO ATTACHMENT A TO PROPOSED ORDINANCE 2016-0155,**

2 **VERSION 2**

3 **Chapter 9, Services, Facilities and Utilities:**

4 On page 9-5, beginning on line 138, strike lines 138 through 147, and insert:

5 "F-209a King County will provide or manage local services for unincorporated areas,
6 which include but are not limited to:

- 7 a. Building permits;
8 b. District Court;
9 c. Economic Development;
10 d. Land use regulation;
11 e. Law enforcement;
12 f. Local parks;
13 g. Roads;
14 h. Rural Area and Natural Resource Lands management assistance; and
15 i. Surface water management.

16
17 F-209b King County's local economic development services are provided in Rural
18 Areas and Natural Resource Lands through the Rural Economic Strategies
19 Plan and in unincorporated urban areas through joint partnerships with
20 cities, including annexation and governance transition services."
21

22 *EFFECT: Amends policy F-209a by adding "economic development" to the list of*
23 *services for unincorporated areas. Adds a new policy, F-209b, to clarify the local*
24 *economic development services that the County provides. The amendment would*

51

73181

25 *change the policy from the substitute version as follows (strikethrough formatting is*
26 *included for illustrative purposes only):*

27 F-209a King County will provide or manage local services for unincorporated areas, which
28 include but are not limited to:
29 a. Building permits;
30 b. District Court;
31 c. **Economic Development**;
32 **d.** Land use regulation;
33 ~~((d.))~~ **e.** Law enforcement;
34 ~~((e.))~~ **f.** Local parks;
35 ~~((f.))~~ **g.** Roads;
36 ~~((g.))~~ **h.** Rural Area and Natural Resource Lands management assistance;
37 and
38 ~~((h.))~~ **i.** Surface water management.

39
40 **F-209b King County's local economic development services are provided in Rural**
41 **Areas and Natural Resource Lands through the Rural Economic Strategies**
42 **Plan and in unincorporated urban areas through joint partnerships with**
43 **cities, including annexation and governance transition services.**

R. Dunn → An# B-1.A

failed

12

11/28/16
Fairwood A @ R-6

18427

B-1.A

cmj

Sponsor: Dunn

Proposed No.: 2016-0155

1 **AMENDMENT TO ATTACHMENT B TO PROPOSED ORDINANCE 2016-0155,**

2 **VERSION 2**

-DU

3 On page 2, in the Table of Contents, delete "Amendment 1: Fairwood A"

4

5 On pages 3 through 6, delete Map Amendment #1.

6

7 Renumber the remaining map amendments consecutively and update the Table of Contents

8 accordingly.

9

10 ***EFFECT: Map Amendment #1, also known as Fairwood A, currently redesignates four***
11 ***parcels to "uh" (urban high) land use designation, rezones from R-6 to R-18, and adds p-***
12 ***suffix conditions. Amendment B-1.A would keep the existing "um" (urban medium) land use***
13 ***designation, keep the existing R-6 zoning, and would remove the proposed p-suffix conditions.***

SI

Handwritten notes at the top right of the page.

Main body of handwritten text, appearing to be a list or series of notes.

Second section of handwritten text, possibly a continuation of the list.

Final section of handwritten text at the bottom of the page.

R. Dembowski → AM# B-1.E

18427

12

passed

B-1.E

12/2/16

Fairwood A – public process,
conservation, uses, height

cmj

Sponsor: Dembowski

Proposed No.: 2016-0155

1 **AMENDMENT TO ATTACHMENT B TO PROPOSED ORDINANCE 2016-0155,**

2 **VERSION 2**

3 In Map Amendment #1, starting on line 19, strike lines 19 through 33, and insert:

— RD Uhh
— CB - space
in support
— R. Dembowski
to close

4 "2. Add P-suffix development condition SC-Pxx to parcels 3423059035,
5 3423059061, and 3423059031:

- 6 • "Development shall be subject to applicable development
- 7 regulations and limited to some combination of the following uses
- 8 as defined in K.C.C. 21A.08: single family dwelling units for seniors,
- 9 senior citizen assisted housing, day care facilities and nursing and
- 10 personal care facilities.
- 11 • The height of any new construction shall be no greater than 65 feet.
- 12 • Permits shall not be applied for until a permanent conservation
- 13 easement is recorded on the western-portion of each parcel,
- 14 including the required critical area buffer(s) and any remaining land
- 15 west of that buffer(s), so as to provide separation between the
- 16 current lower-density residential homes and the new proposed
- 17 higher-density senior housing development on this site.
- 18 • In the event that the applicant has not submitted a complete
- 19 application for the first necessary permit with the Department of
- 20 Permitting and Environmental Review by December 31, 2023, the
- 21 land use and zoning map amendment approved under Ordinance
- 22 _____ shall expire and the land use designation and zoning
- 23 revert to its prior designation and zoning." "
- 24

25 In Map Amendment #1, starting on line 37, strike lines 37 through 43, and insert:

26 "4. Add P-suffix development condition SC-Pxx to parcel 3423059034:

- 27
- 28
- 29 • "Development shall be limited to residential development, and at
- 30 least 20% of the residential units shall be affordable for moderate-
- 31 income residents as defined in the King County Consolidated
- 32 Housing and Community Development Plan (Ordinance 18070), or
- 33 successor plans.

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- Permits shall not be applied for until a permanent conservation easement is recorded on the western-portion of the parcel, including the required critical area buffer(s) and any remaining land west of that buffer(s), so as to provide separation between the current lower-density residential homes and the new proposed higher-density residential development on this site.
- In a manner consistent with achieving R-18 level density, development shall be subject to a conditional use permit and in addition to the standard requirements for a conditional use permit:
 - After issuance of the Notice of Application, and prior to issuance of the SEPA Determination or Notice of Decision, the Department of Permitting and Environmental Review shall hold one or more public meeting(s) in the vicinity of the project regarding the proposed development; and
 - The Department of Permitting and Environmental Review, as part of their review of the conditional use permit, shall consider the criteria in K.C.C. 21A.44.040, and additionally shall consider appropriate development standards, conditions and/or mitigation measures to address impacts of the development and integrate the development with the surrounding neighborhood while being consistent with achieving an R-18 level of density, including but not limited to: building height; parking requirements; traffic impacts; lighting impacts; design elements of the building, including landscaping; and setback requirements.
 - The Department of Permitting and Environmental Review shall also require the applicant to make a reasonable effort to integrate ingress/egress with the development of the property to the north.
- In the event that the applicant has not submitted a complete application for the conditional use permit with the Department of Permitting and Environmental Review by December 31, 2023, the land use and zoning map amendment approved under Ordinance _____ shall expire and the land use designation and zoning revert to its prior designation and zoning." "

EFFECT: Map Amendment #1, also known as Fairwood A, currently redesignates four parcels to "uh" (urban high) land use designation, rezones from R-6 to R-18, and adds p-suffix conditions. Amendment B-1.D would maintain the zoning and land use designation change in Map Amendment #1, but would amend the p-suffix conditions to:

- 77
- *require a conservation easement along the western edge of the four properties,*
- 78
- *impose height limits for the northern three properties,*
- 79
- *limit development to only a senior continuing care community on the three northern*
- 80
- *parcels and to only residential development on the southern-most parcel,*
 - *require a conditional use permit and additional public process for the residential housing on the southern-most parcel to determine appropriate development standards, conditions and/or mitigation measures for impacts to the surrounding neighborhood,*
 - *adds a sunset clause for the approval of the land use and zoning map amendments..*

R. Dembowski → Am# B-2

Passed

18427

12

B-2

11/28/16

Reserve at Covington Creek

cmj

Sponsor: Dembowski

Proposed No.: 2016-0155

1 **AMENDMENT TO ATTACHMENT B TO PROPOSED ORDINANCE 2016-0155,**

2 **VERSION 2**

3 On page 2, in the Table of Contents, add "Map Amendment #10:
4 Covington Creek"

Reserve at

- KL - wide support.

- R. Dembowski

- JMCJ asked question of C. Jensen.

- KL.

5
6 After page 33, insert Map Amendment #10 as attached to this amendment.

7
8 **EFFECT: *Would add a new Map Amendment #10, also known as Reserve at Covington***

9 ***Creek, which would amend existing p-suffix conditions for two parcels that were added to***

10 ***the Urban Growth Area for urban residential development in 2008.***

1 **Map Amendment # 10**

2
3
4 **SE Falcon Way at 216th Ave SE and SE 296th St**

5
6 **(Reserve at Covington Creek)**

7
8
9 **AMENDMENT TO THE KING COUNTY COMPREHENSIVE PLAN – KING COUNTY**
10 **ZONING ATLAS**

11
12 Amend Section 4, Township 21, Range 06 as follows:

13
14 **ZONING**

15
16 Amend P-suffix condition TR-P49 on parcels 0421069008 and 0421069011 as
17 follows:

- 18
19 • ~~“(Development shall be consistent with all City of Black Diamond~~
20 ~~regulation and guidelines;))~~
- 21
22 • King County and any development applicant shall address traffic in the
23 area to ensure that existing level of service conditions are ((addressed
24 and improved — not degraded — by any future development;
25 and)) maintained consistent with concurrency requirements in the King
26 County Code and King County Comprehensive Plan;
- 27
28 • ~~“(The applicant shall enter into a pre-annexation agreement that includes~~
29 ~~the use of rural transfer of development rights and conservation of at least~~
30 ~~four acres of rural land for every acre of urban land;))~~ The site shall be
31 developed at no greater than R-4 zoning on 50% of the site. A notice shall
32 be added to the properties’ titles that the current and/or future property
33 owner(s) of the site shall not contest the annexation after the site has
34 been rezoned and platted; and
- 35
36 • The site shall not be rezoned until at least 160.63 acres of land is put in
37 permanent conservation. The total acreage of conserved land will be
38 achieved through a) a permanent conservation easement on up to 20
39 acres of the site surrounding the new urban development, and b)
40 permanent conservation of off-site lands as follows:
 - 41 ○ Conservation of rural, agricultural and/or forestry lands in the
42 Duwamish-Green River Watershed (via conservation easement(s)
43 and/or purchase of Transfer of Development Rights);

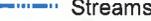
- 44 ○ Conservation of land from King County's high value conservation
- 45 list; and/or
- 46 ○ Purchase of Transfer of Development Rights from the County's
- 47 TDR bank."

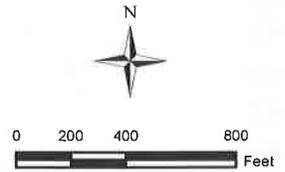
48
49 **Effect: Would amend an existing P-suffix condition TR-P49 as follows:**

- 50 ● **Remove the requirement that the development be consistent with the City's**
- 51 **plans and regulations.**
- 52 ● **Direct that existing transportation conditions specific to level of service be**
- 53 **maintained consistent with the County's concurrency requirements. This**
- 54 **would replace the current requirement that general transportation**
- 55 **conditions be not only not degraded but also addressed and improved.**
- 56 ● **Remove the requirement that there be a pre-annexation agreement to guide**
- 57 **development, and add requirement that the property owners will not**
- 58 **contest annexation.**
- 59 ● **Requires density to be no greater than four homes per acre on 50% of the**
- 60 **site, which would result in up to 80 dwelling units.**
- 61 ● **Maintains conservation of four acres of land for every acre of land that was**
- 62 **added to the UGA (for a total of 160.63 acres), and clarifies how that**
- 63 **conservation could be achieved (on-site and off-site).**

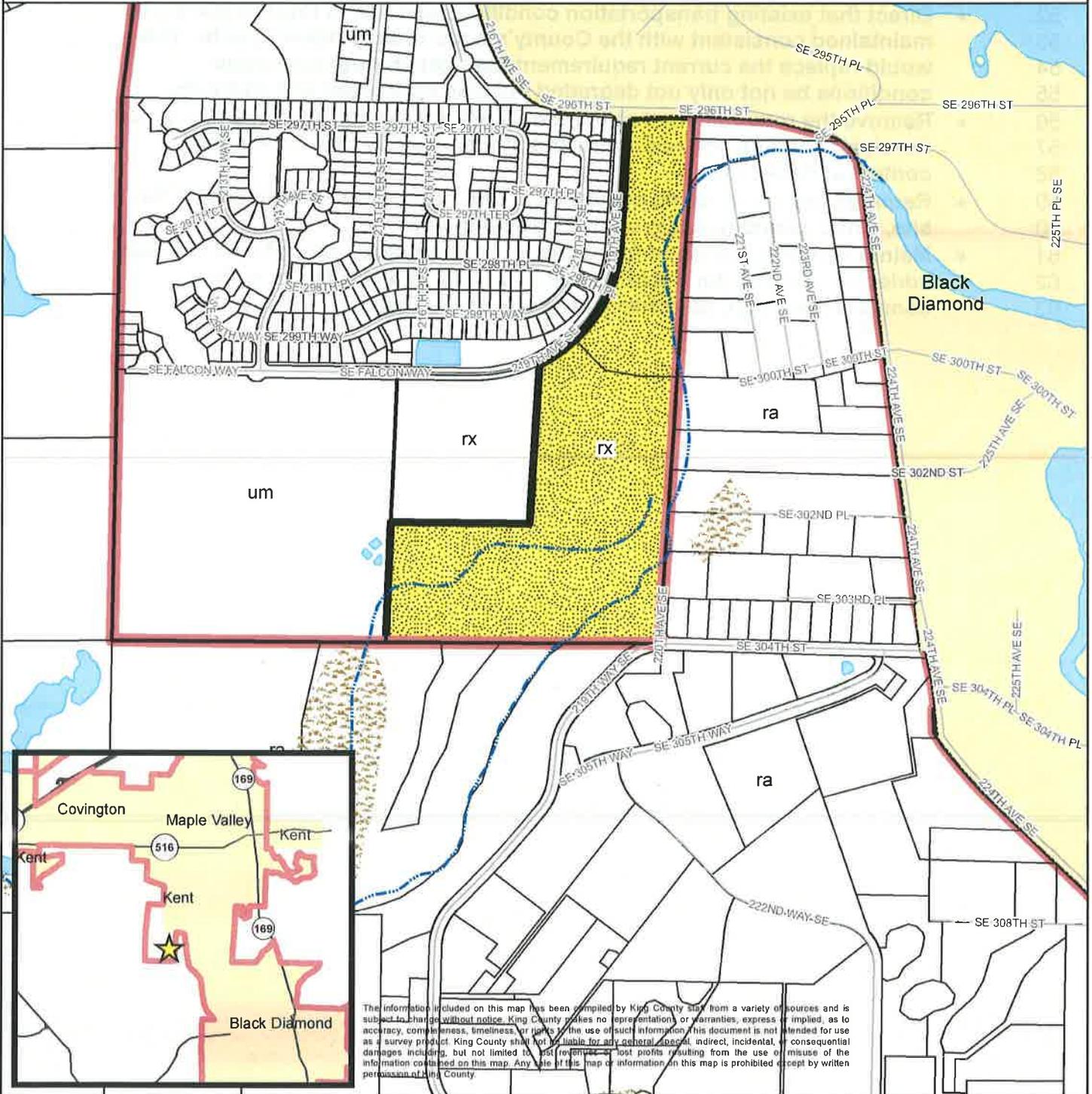
Map Amendment #10 - Reserve at Covington Creek

2016 King County Comprehensive Plan Land Use Map Amendment

- | | | |
|---|---|---|
|  Study Area |  Park & Ride |  ra Rural Area |
|  CPLU |  Streams |  rx Rural Cities Urban Growth Area |
|  Wetland & Steep Slope |  Railroads |  um Urban Res., Medium (4-12du/acre) |
|  Incorporated Area |  Waterbodies | |
|  Urban Growth Boundary |  Parcels | |
|  Parks & OS | | |



Date: 11/22/2016



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