Appendix A

Redevelopment Analysis

Analysis of Development and Redevelopment Potential in Kirkland

Overview:

This analysis compares the existing impervious conditions to the potential built out impervious conditions in each of Kirkland's 15 watersheds. The percentage of land area covered with impervious area is a critical indicator of watershed conditions. Even small increases in impervious area can affect the volume and timing of runoff, as well as increased discharge of pollutants within a watershed. Examination of the expected increase in impervious surface, and the types of surface that make up that increase, will aid in focusing management efforts between and within Kirkland's watersheds.

The City's Geographic Information System (GIS) system was used to analyze the amount of impervious surface and determine the potential increases of impervious within each watershed. The impervious layer in GIS created from the 2012 aerial flyover was used to calculate all the existing amount of impervious in each watershed.

The Planning department was currently in the process of conducting a capacity analysis which determined lots most likely to develop or redevelop within the next 20 years. Additional layers were used within the capacity analysis to determine lots that were developable or redevelopable, such as:

- Sensitive Areas Layer: shows wetlands, streams, and buffers associated with them
- Steel Slopes Layer: shows areas where the topography has more than a 40% slope
- Zoning Layer: shows what each parcel is zoned as and relates to a table of lot coverage allowed per that zone

The capacity analysis layer created from the planning department's methodology behind developed or redeveloped parcels was used to determine the potential built out impervious area within each watershed. More information about assumptions used to determine the lots identified as developable or redevelopable and impervious calculations per those lots can be found in the assumptions section below.

Existing impervious within the City ranged from 21% in Yarrow Creek watershed to 46% in Moss Bay watershed. Complete comparison of impervious surface percentages to those presented in the 2005 Surface Water Master Plan was not possible because annexation brought new basins and increased the portion of other basins that are within the city. However, basin sizes that remained the same between 2005 and 2014 showed the expected trend of increased impervious during that period, with the City continuing to progress towards built out conditions. For example, the Moss Bay basin in 2005 had 43% impervious coverage and increase to 46.2% in 2012, with the potential to build out to 48.3% by 2035. Expected increases in impervious area from 2012 to 2035 range from 0% in the Lower Sammamish River watershed to 8.4% in the Kingsgate slope watershed. Results of the analysis are shown in the table below.

Table 1. Analysis of Change in Impervious Area per Watershed

able 217 maryolo of Ghan	Existing	Change in	
	Impervious Area	Impervious Area	Impervious
Basin Name	in Watershed	in Watershed	Area
Lower Sammamish River	41.0%	41.0%	0.0%
Kirkland Slope	39.1%	40.0%	0.9%
Juanita Creek	42.6%	43.6%	1.1%
Houghton Slope A	46.0%	47.5%	1.5%
South Juanita Slope	43.7%	45.2%	1.5%
Carillon Creek	38.3%	40.4%	2.1%
Yarrow Creek	20.8%	22.9%	2.1%
Moss Bay	46.2%	48.3%	2.2%
Denny Creek	24.4%	27.0%	2.5%
Forbes Creek	36.9%	39.8%	2.9%
To Redmond	37.7%	41.0%	3.3%
Houghton Slope B	40.8%	44.9%	4.2%
Holmes Point	21.7%	26.8%	5.1%
Champagne Creek	30.0%	36.1%	6.1%
Kingsgate Slope	29.7%	38.0%	8.4%

Of the 24,201 parcels within the City of Kirkland, a total of 1258 parcels were identified as developable (109 parcels) or redevelopable (1149 parcels) over the next 20 years. Moss Bay watershed had the most lots identified for development or redevelopment. Low density residential (single family housing) parcels were the primary source for new impervious area throughout the City. The results are summarized in the table below.

Table 2. Zoning Designation of Development / Redevelopment Parcels

Zoning Designation	Parcels
Commercial	125
High Density Residential	54
Industrial	39
Low Density Residential	791
Multi Density Residential	117
Office	132

Table 3. Parcel Development / Redevelopment within Each Watershed

Watershed	Parcels
Forbes Creek	254
Yarrow Creek	36
South Juanita Slopes	33
Carillon Creek	16
Kirkland Slope	18
Moss Bay	281
Houghton Slope A	54
Houghton Slope B	28
To Redmond	30
Denny Creek	47
Holmes Point	65
Lower Sammamish River	0
Kingsgate Slope	56
Champagne Creek	162
Juanita Creek	175
No Basin*	3

^{*}Parcels identified as redevelopable drain directly to the lake and are not currently a part of a watershed

Assumptions

<u>Impervious Calculations</u>

For all developable or redevelopable lots (including single family, commercial, and multi-family), the maximum allowable impervious surface was used from the zoning code. If the parcel was a redevelopable lot, the existing impervious was subtracted from the maximum allowable impervious surface to determine a net new impervious surface. If a watershed extended past the City limits, the impervious calculations were limited to the City limits rather than the full watershed due to lack of information in GIS outside of the City limits.

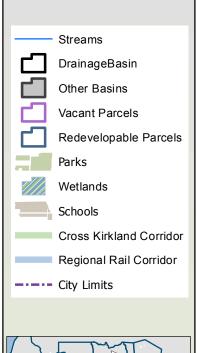
Identification of Parcels as Developable or Redevelopable

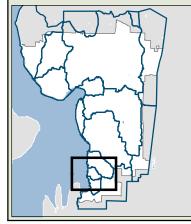
The City of Kirkland planning department was going through a capacity analysis for the 2035 Comprehensive plan of all the parcels likely to develop or redevelop within the next 20 years. The Surface Water Utility group partnered with the planning group to use the developable or redevelopable parcels to calculate the maximum new impervious surface area based on the zoning of the parcels within each basin.

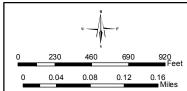
Some of the assumptions used were removing steep slope areas (40%+ slopes) from developable area, using density of multifamily lots to determine if a lot is likely to redevelop, and assuming that commercial lots with assessed values of existing improvements is less than 5-% of the assessed land value are likely to redevelop. The entire methodology for the identification of parcels likely to develop or redevelop is attached at the end of this appendix.

Maps





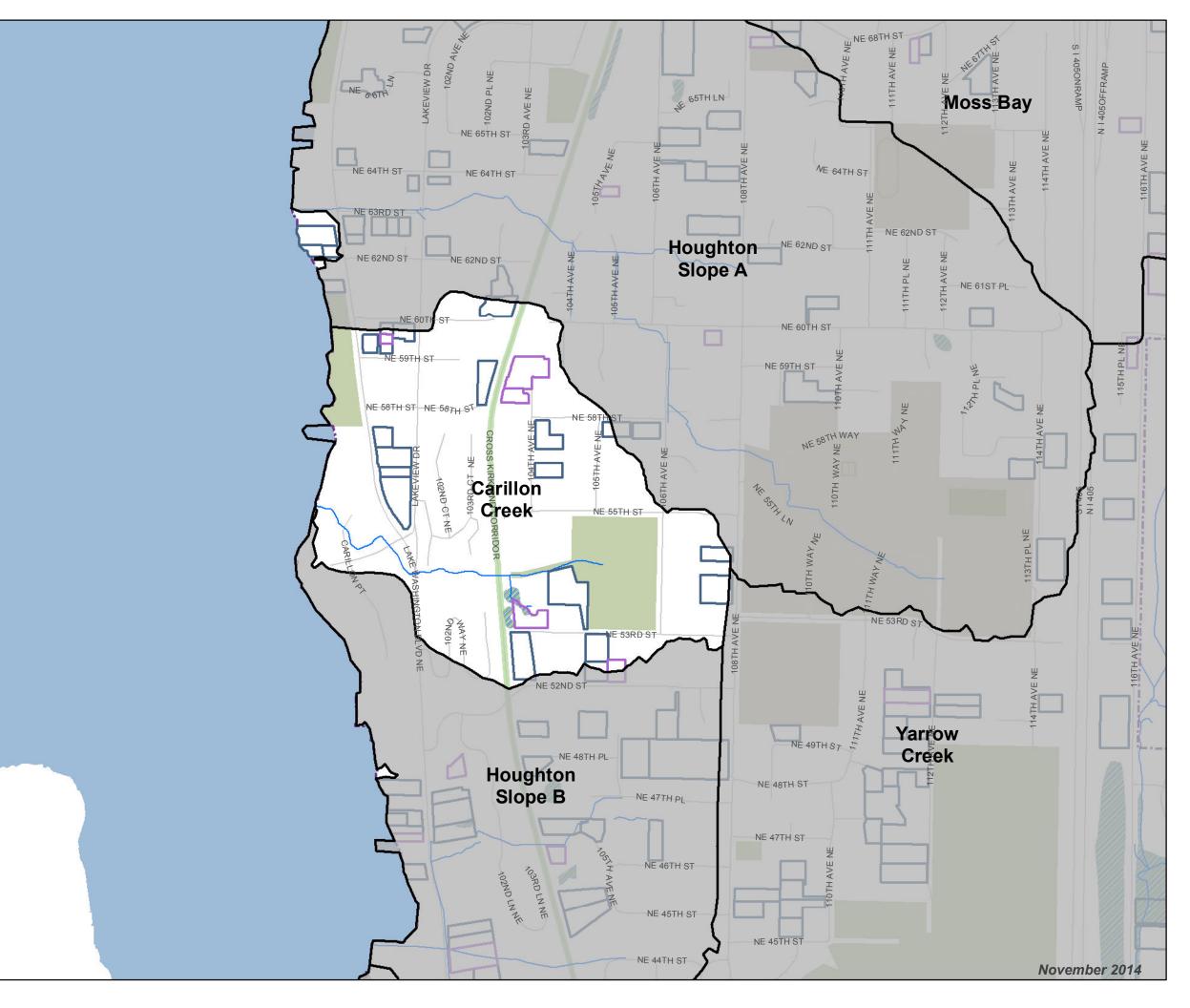


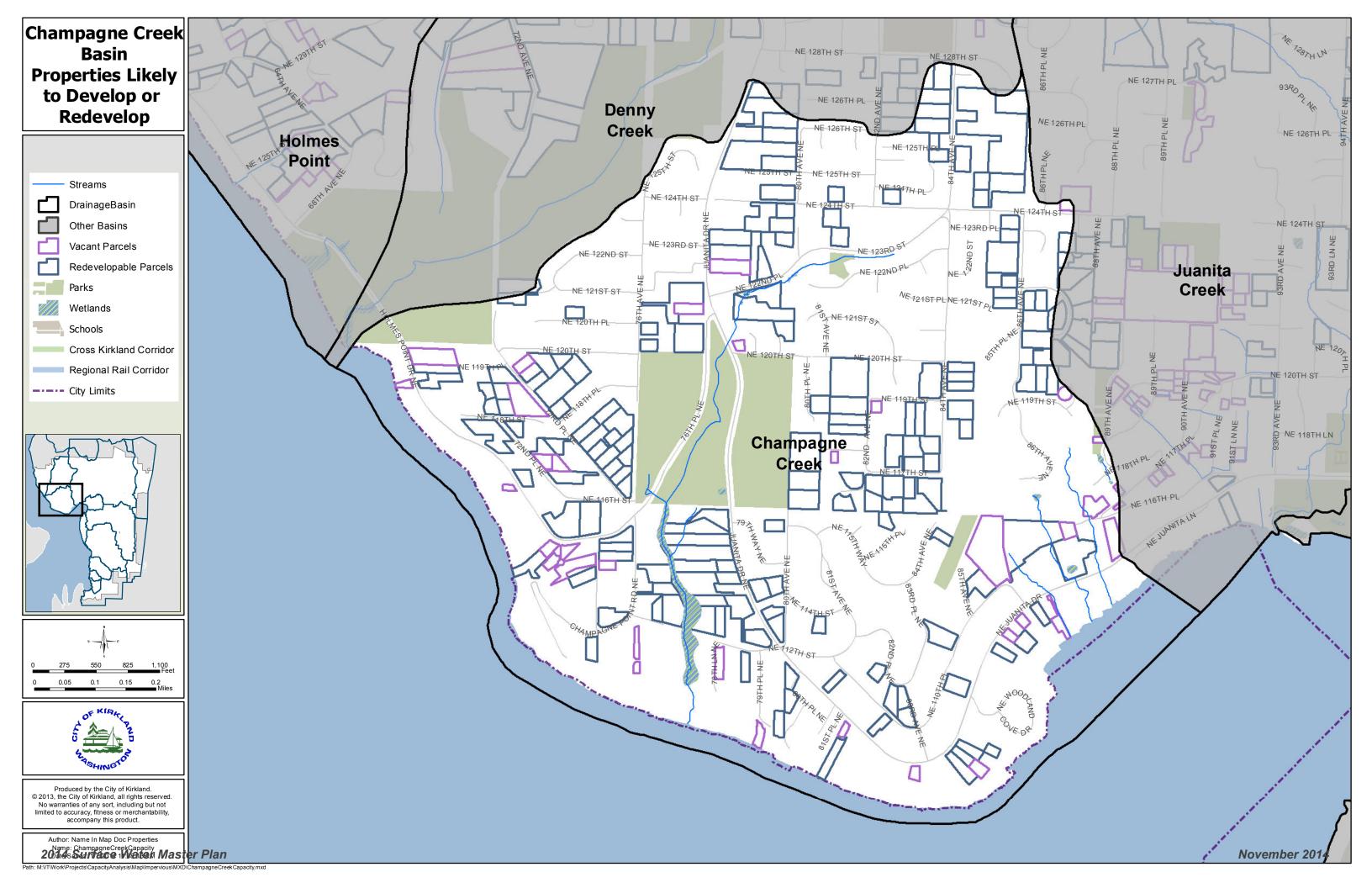


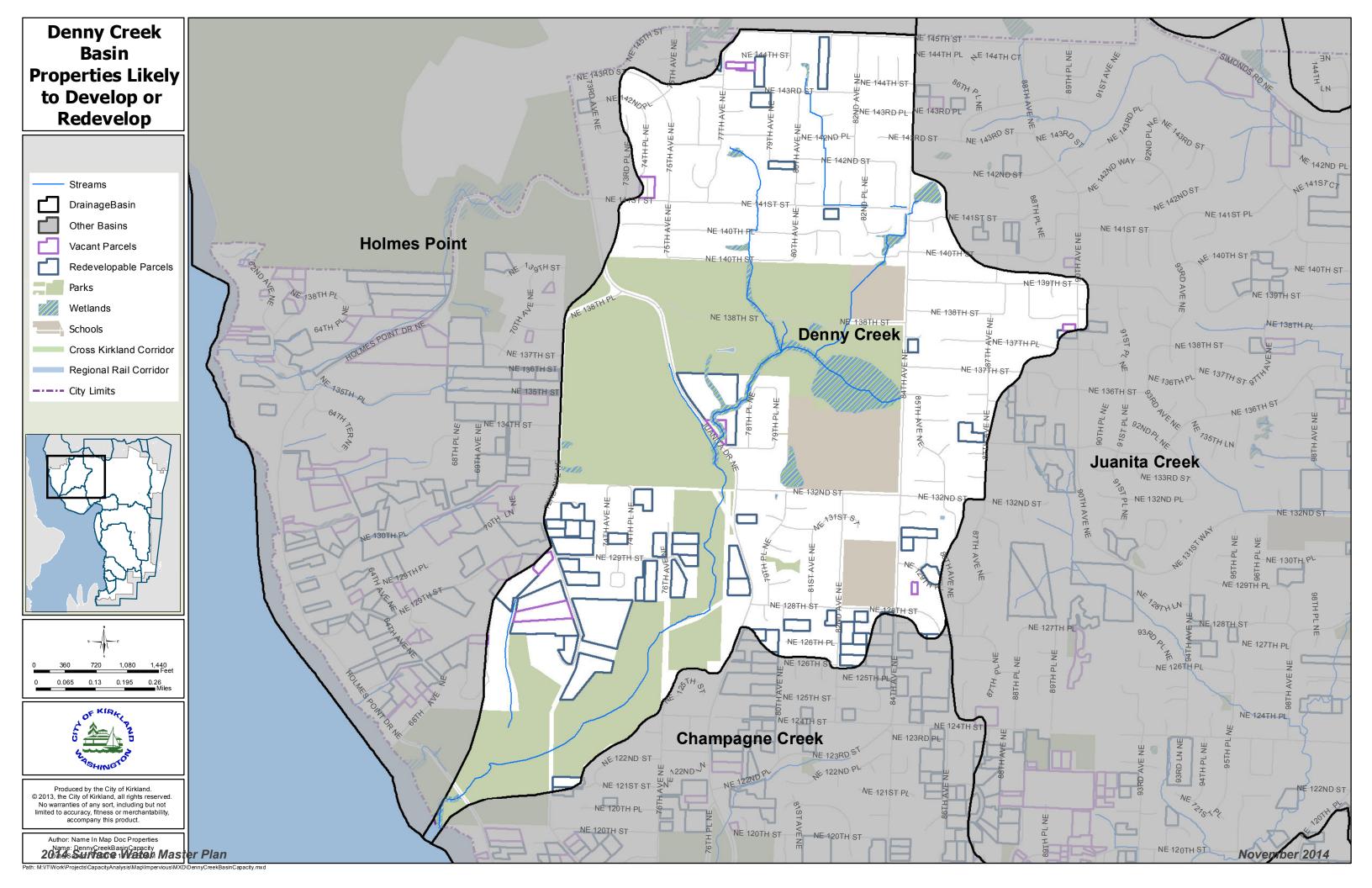


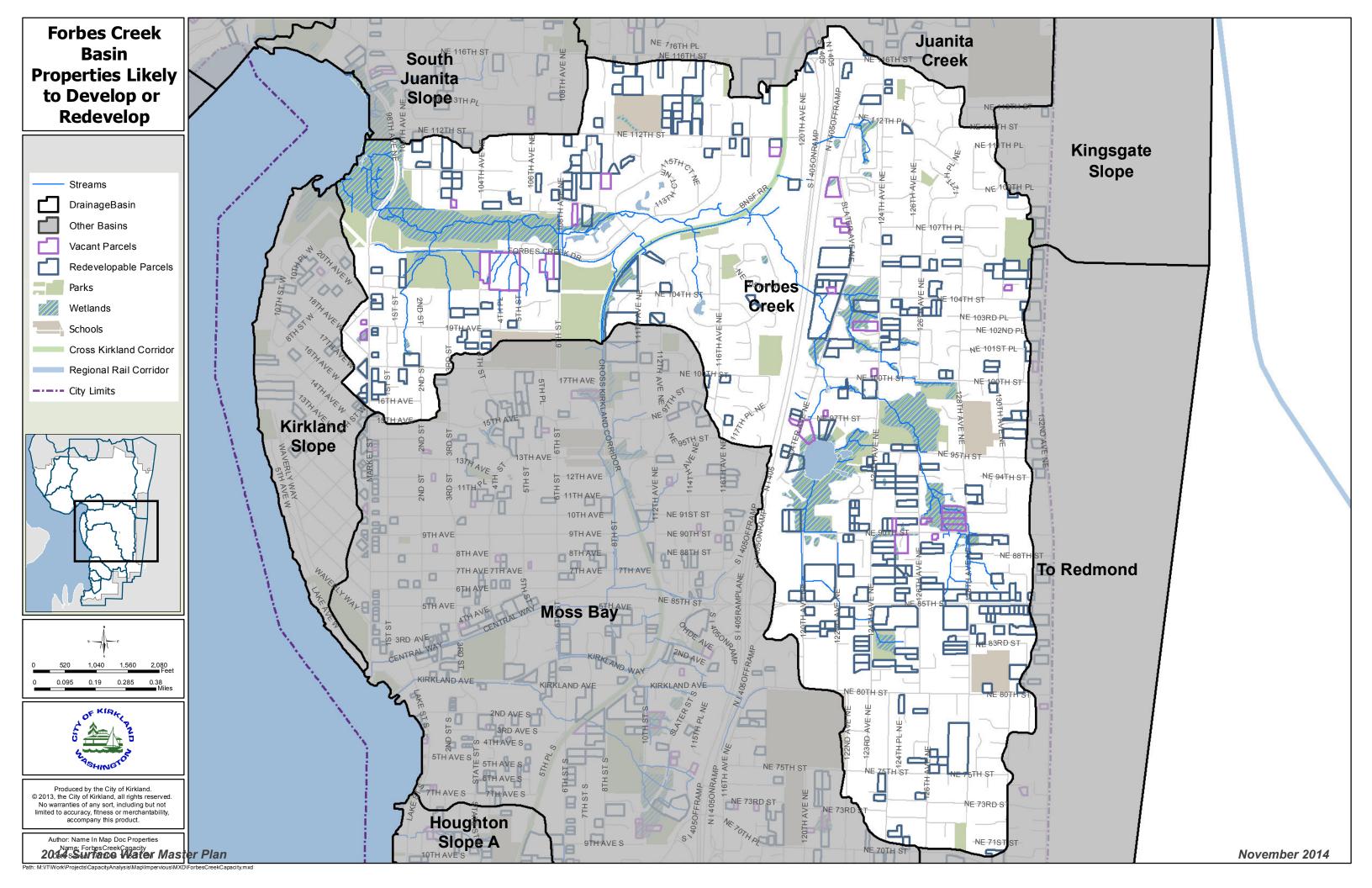
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Author: Name In Map Doc Properties
Name: CarillonCreek Capacity
20th Saluriano Waster Plan



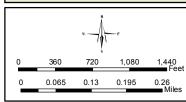






Holmes Point Basin Properties Likely to Develop or Redevelop

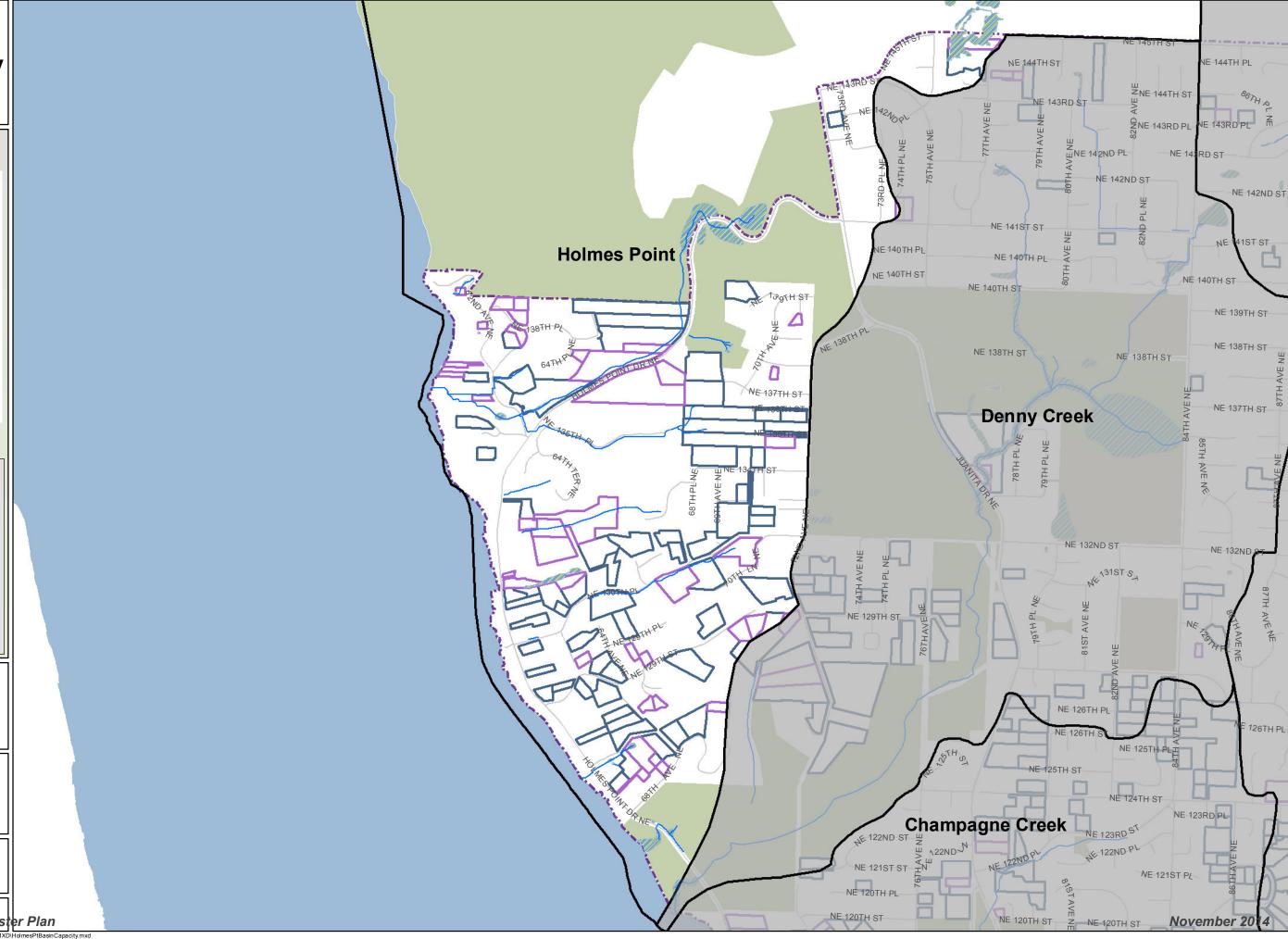


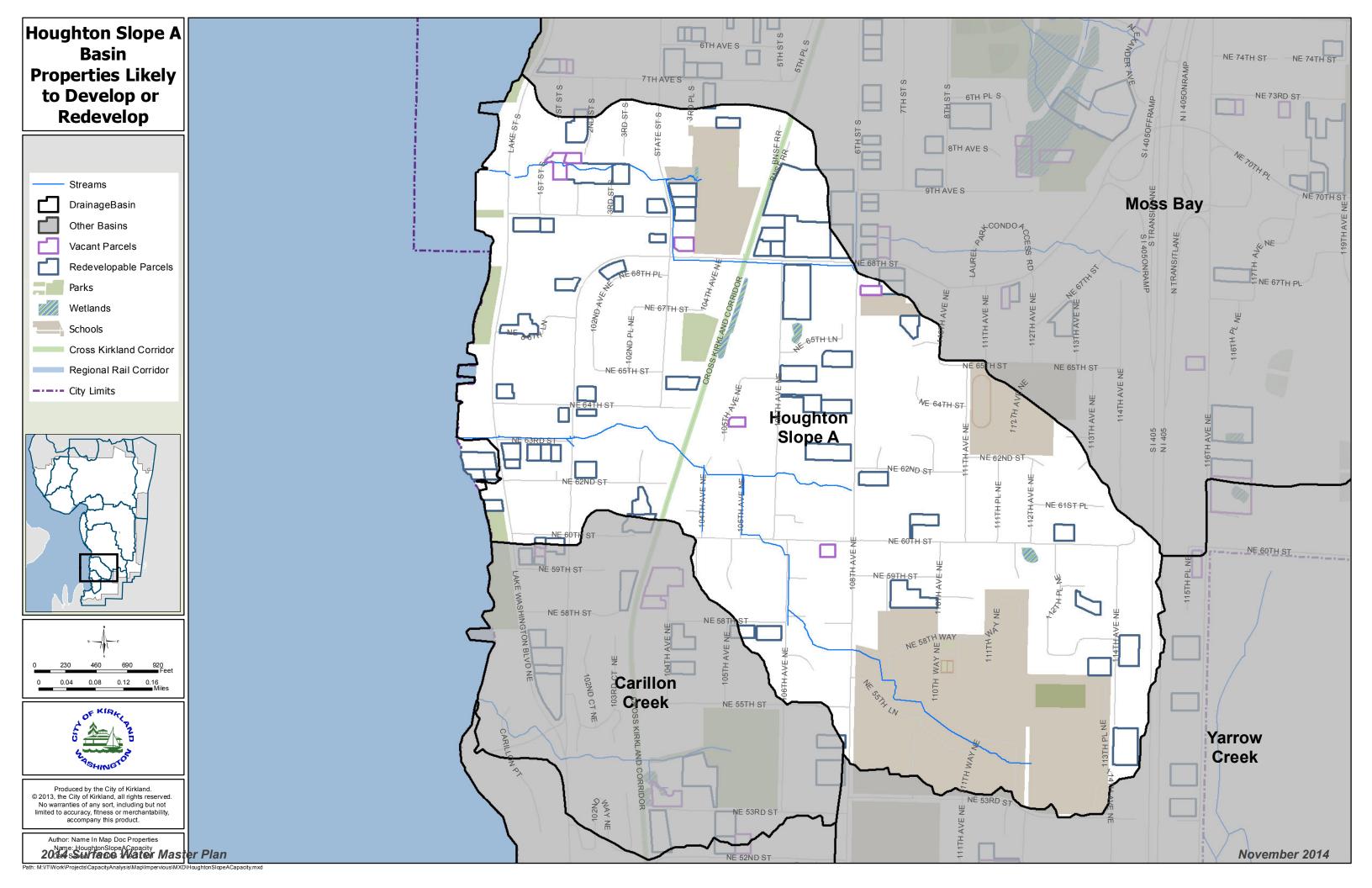


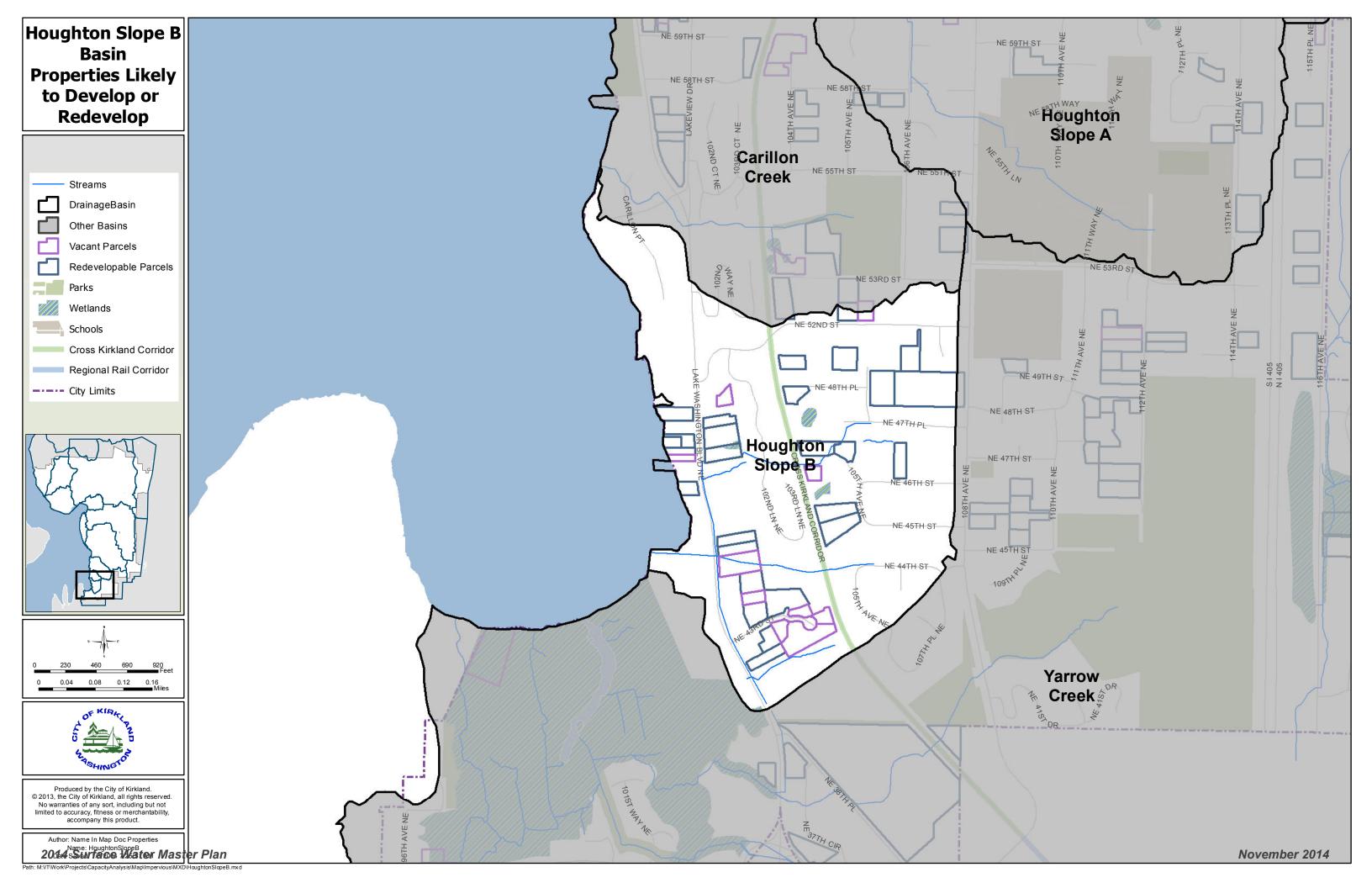


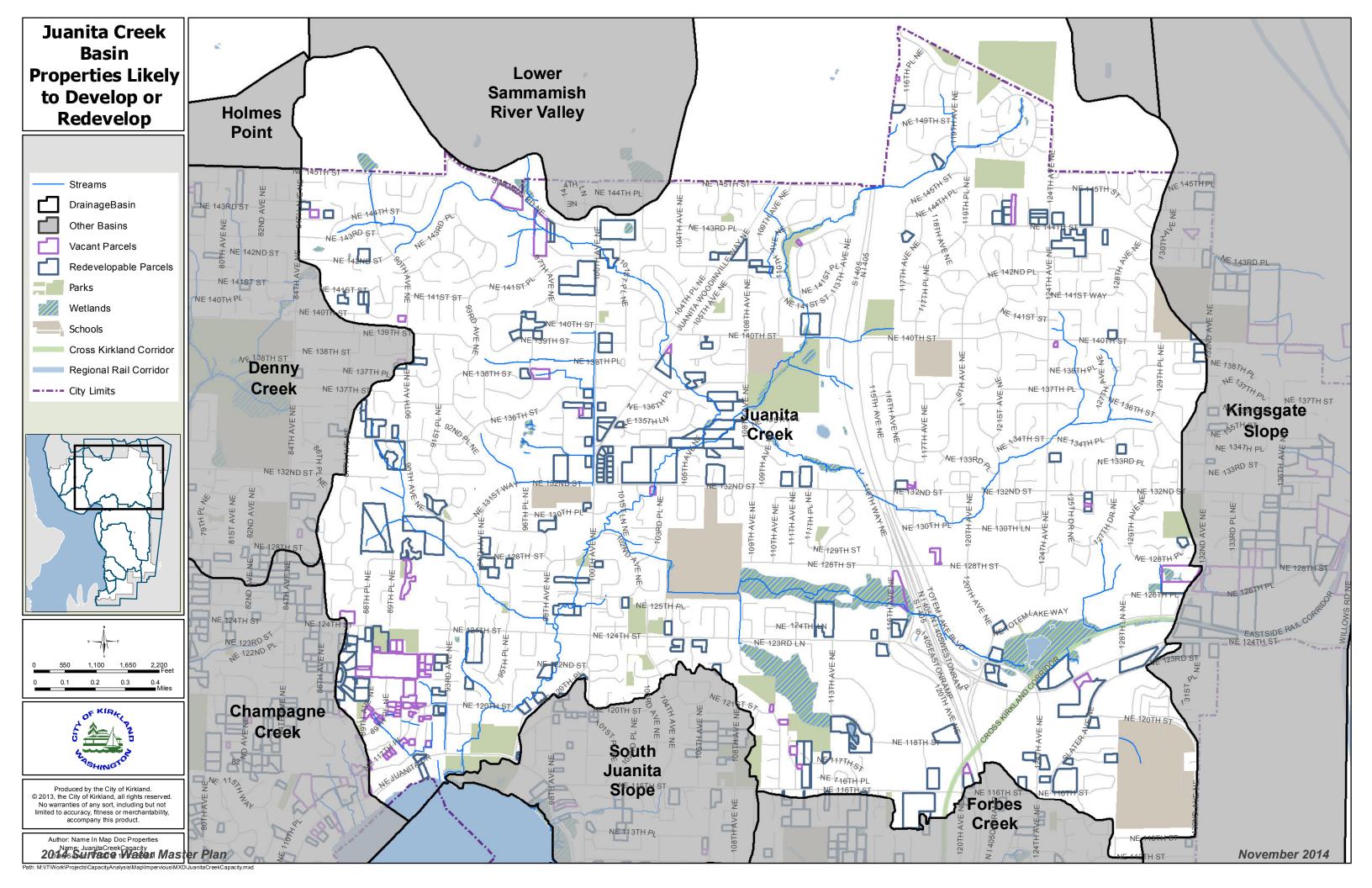
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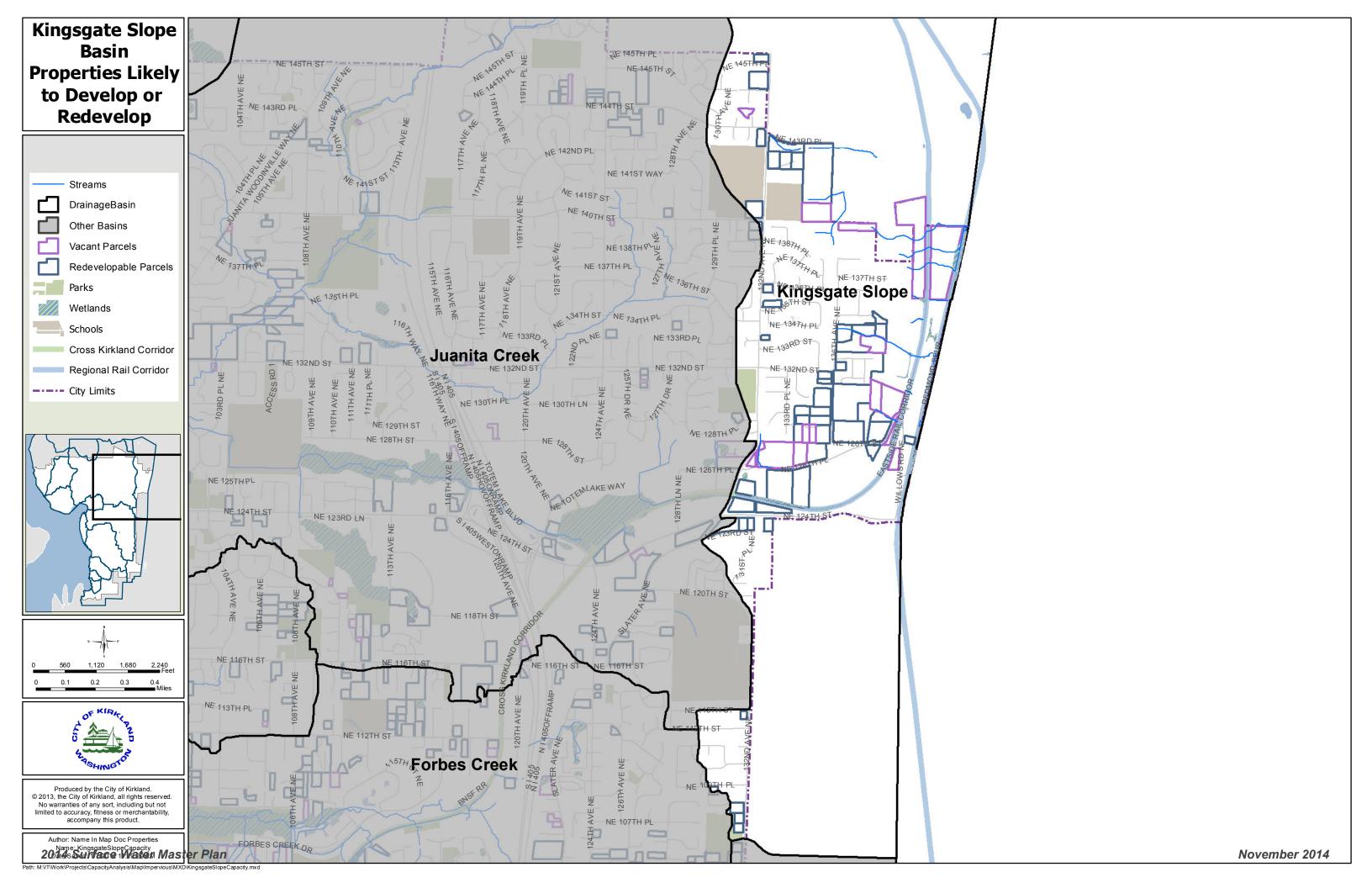
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Name: HolmesPtBasinCapacity
2014 Sauriane Waster Plan

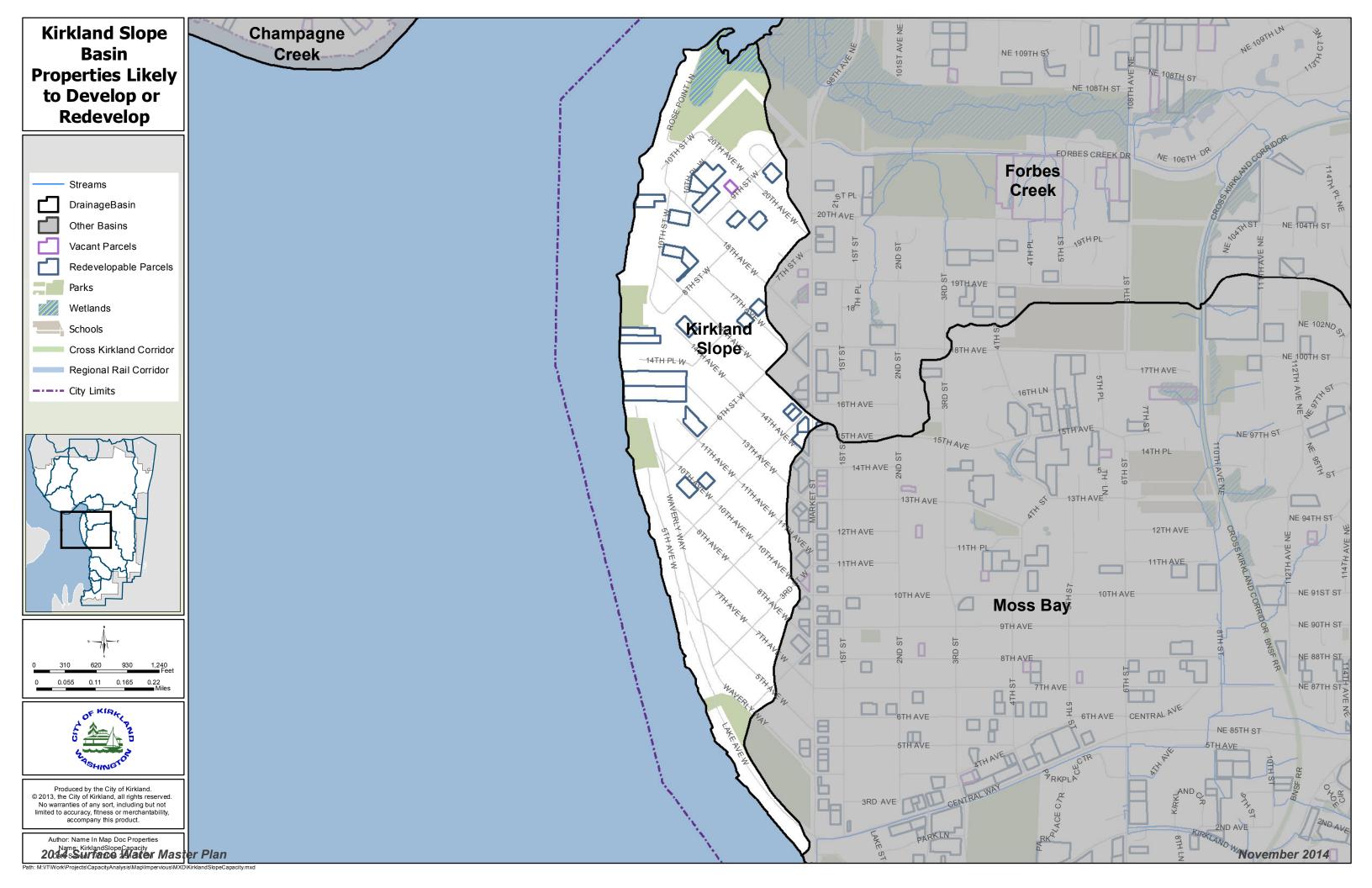


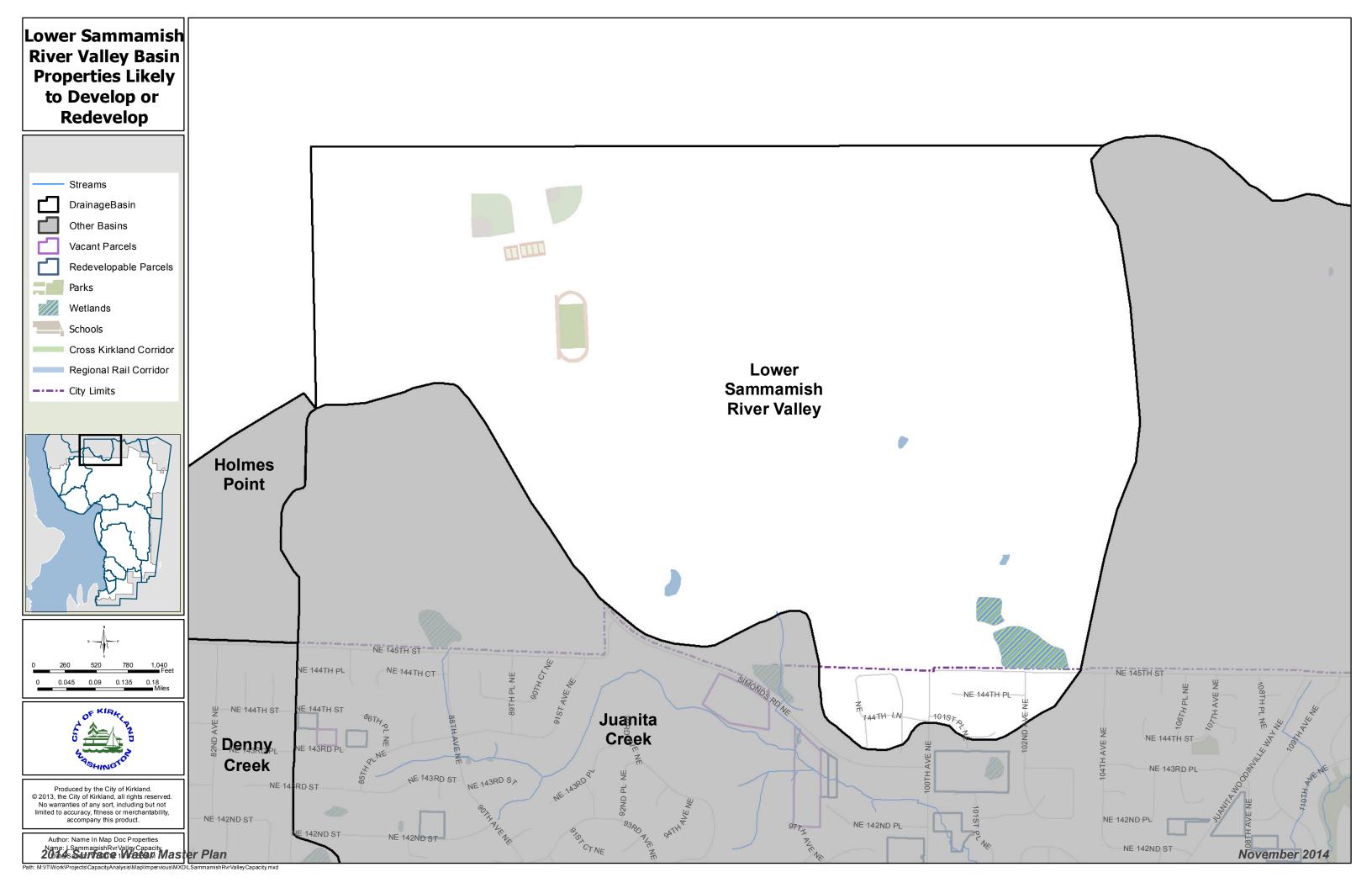


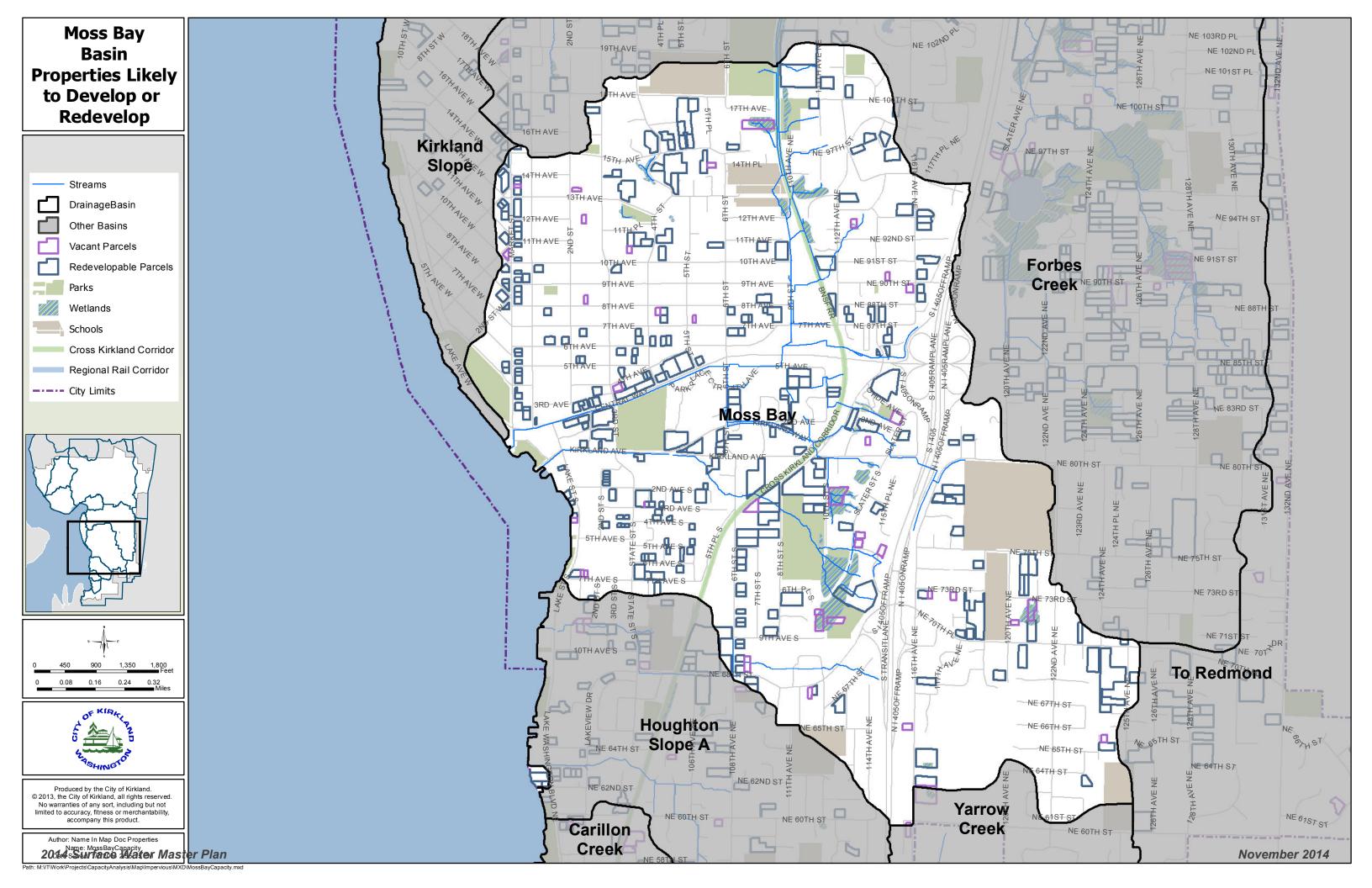


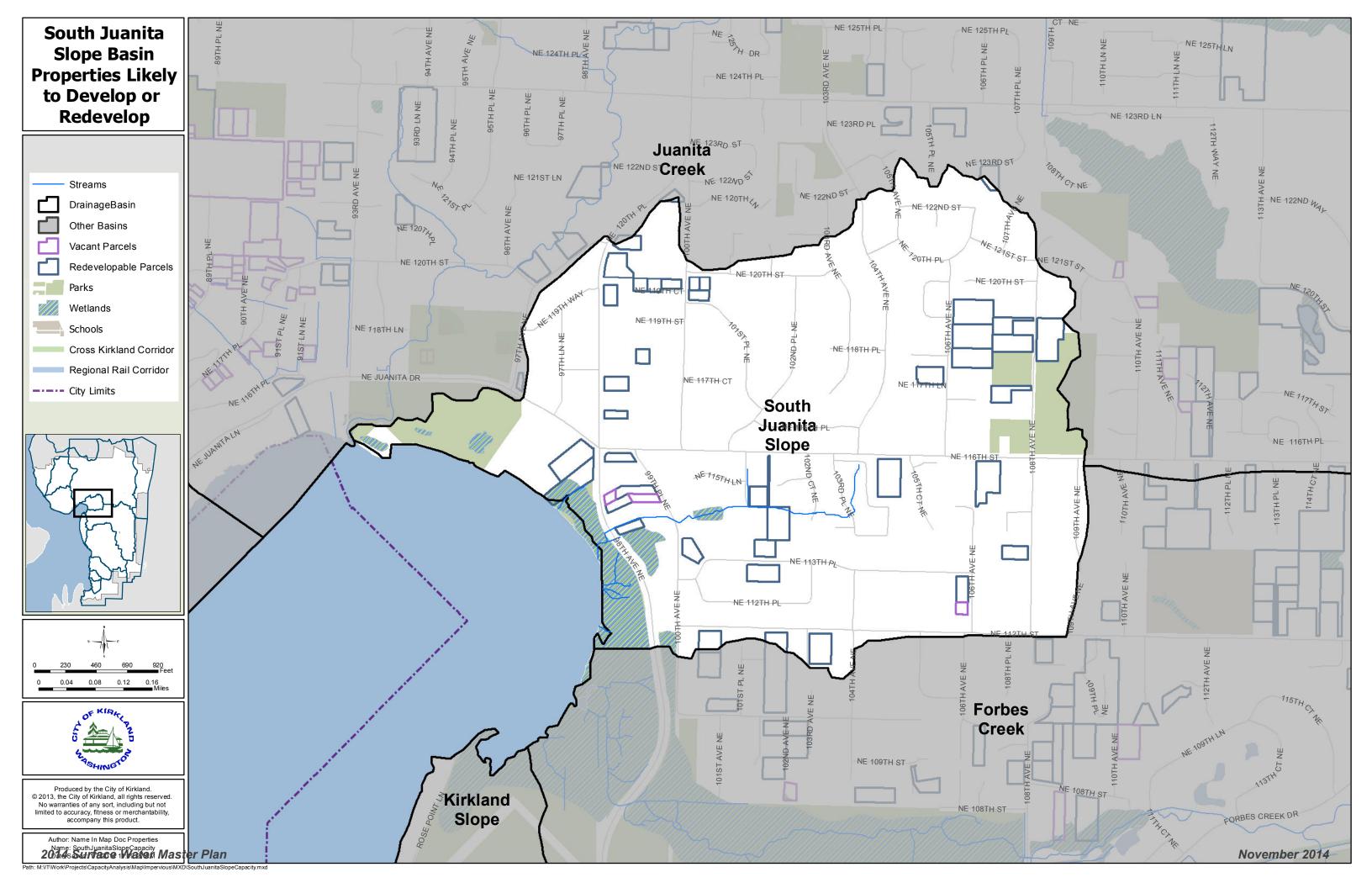


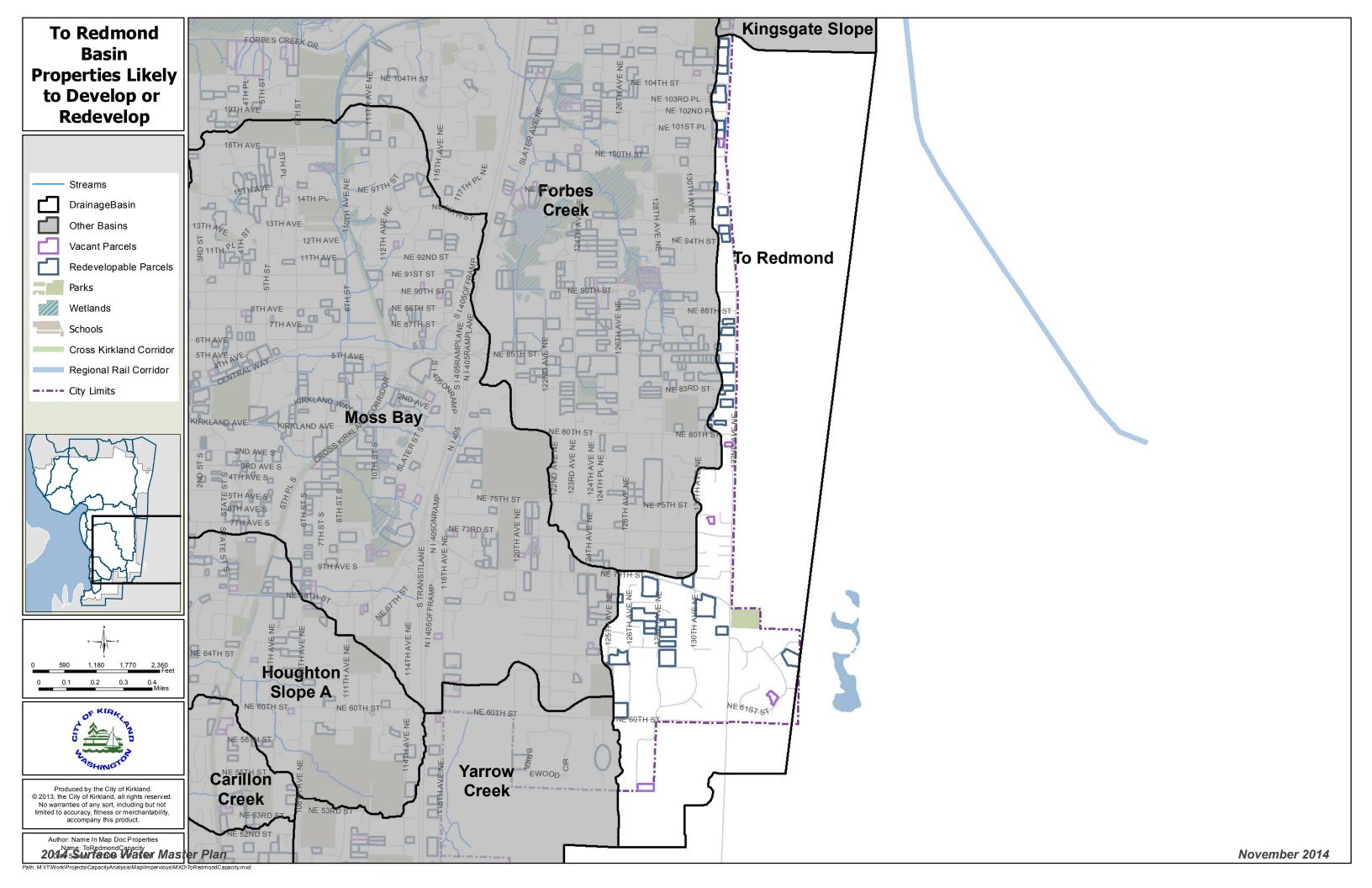


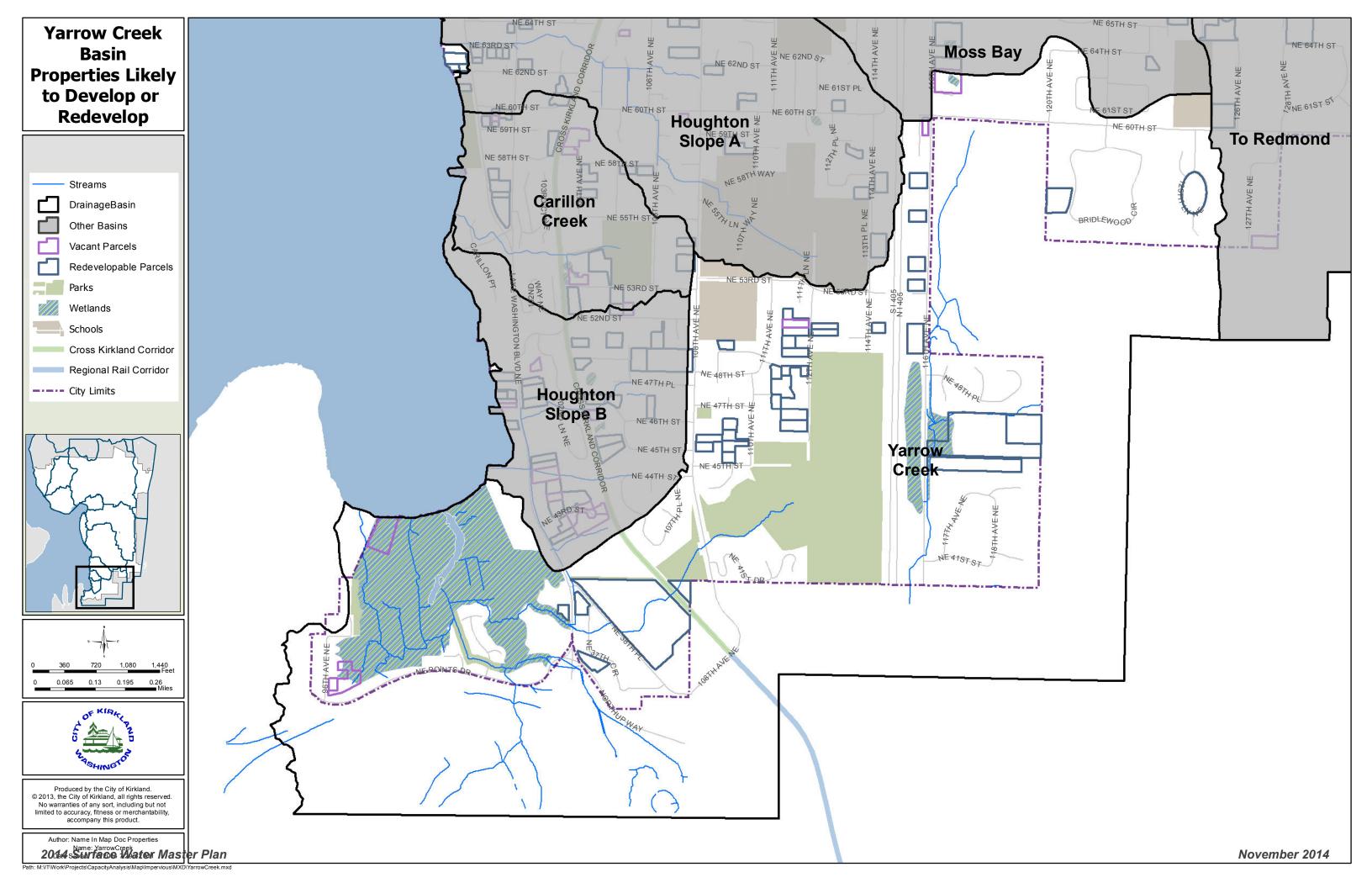












Methodology for Capacity Analysis

City of Kirkland Instructions for Estimating Land Supply and Development Capacity Updated April 22, 2014

The Growth Management Act requires jurisdictions to prepare comprehensive plans that accommodate expected growth over a 20 year planning period. Countywide Planning Policies allocate 20 year household and employment targets to each jurisdiction. These targets are intended to be the basis for local Comprehensive Plans. To assure that Comprehensive Plans provide adequate capacity for growth, the GMA also requires that jurisdictions track development trends and analyze the zoned land supply and resulting development capacity. Every five years, King County jurisdictions collaboratively publish a "Buildable Lands Report" reporting development trends and development capacity throughout the County. The report lays out a common reporting methodology for all jurisdictions. This document describes the methodology for the Kirkland development capacity analysis, consistent with the King County Buildable Lands Report methodology.

The analysis prepared in late 2013 is intended to estimate the development potential from January 1, 2013 through 2035.

The Kirkland capacity analysis is created from the Land Use Master File which part of the City's Geographic Information System (GIS) and is maintained in an Access database. The Land Use Master File contains land use by parcel, as well as other Assessor's file information. The multi-family data has been field verified. Using GIS, the following information has been added for each parcel: parcel area, TAZ (transportation analysis Zones), zoning, comprehensive plan designation, critical areas and neighborhood.

Each piece of the analysis is done in Access Queries that are derived from the original database. If assumptions change, then the individual queries and formulae can be modified as necessary. Although the basic formula for calculating capacity comes from the Buildable Lands Repot, the assumptions about redevelopment, densities, critical area factors, market factors, ROW factors etc. are based on knowledge of circumstances unique to Kirkland.

Input

Data are derived from the <u>Land Use Master File (Landuse.mdb)</u> with added fields from the GIS and other tables. This is the main land use database, containing the following fields for the analysis:

- Land Use Code 3 digit
- City of Kirkland Summary of the 3 digit code (SF, MF etc.)
- Assessed Value Land
- Assessed Value Improvements
- Improvement Area
- Number of Units (from assessor or field checked)
- TAZ Number
- Zoning
- Comprehensive Plan Designation
- Neighborhood
- Parcel Size in Acres and Square Feet (Using GIS lot size)
- Units / Acre for each Residential Zone
- FAR's for Non-Residential Zones

In calculating the development potential of individual parcels, all contiguous parcels under common ownership are treated as a single parcel.

Before running the analysis, the following are extracted:

- Public rights of way and the Cross Kirkland Corridor;
- Access tracts;
- Publicly owned properties, such as parks, schools, utilities and government facilities;

- All properties in a "P" zone
- Churches (including churches on property not owned by the church)
- Residential condominium developments
- Parcels owned by homeowners associations
- Parcels < 2500 sq. ft.
- Parcels with a width < 25 ft.
- Developed parcels completely contained in wetlands and streams or their required buffers and underwater portions of properties along lakes.
- Developed waterfront parcels within RSA zones.

Calculation of Capacity

For each parcel in each zone of the City, the analysis calculates the capacity of the parcel for additional development within the following 20 years. Capacity is calculated for each separate parcel, except when abutting parcels are under common ownership, in which case capacity is calculated for all parcels under common ownership.

Capacity is determined by the maximum development allowed by the zoning, accounting for a number of "factors" that are likely to reduce the magnitude or likelihood of development in the following 20 year planning period. Capacity for residential land use is expressed in additional dwelling units and resulting households, while capacity for nonresidential uses is expressed in additional floor area and resulting additional employees.

Categories of Parcels.

For analysis purposes, each parcel is classified into one of the following three categories:

- **Vacant** parcels that have no existing development and will be developed to the maximum allowed by existing zoning. These parcels are identified in the Master Land Use data base as vacant in the land use field.
- **Redevelopable** parcels that are partially developed but have the capacity for additional development. Parcels are considered to be redevelopable as follows:
 - o In single family residential zones: parcels which have the potential to be subdivided into additional lots. Parcels that are large enough to be divided into only two lots, are considered to be redevelopable only when the assessed improvement value is less than 50% of the assessed land value:
 - In multi-family zones: parcels that are developed with apartments (not condominiums) and the
 existing number of dwelling units is less than 60% of the maximum number of dwelling units
 allowed by the zoning;
 - o In commercial, office and industrial zones other than the Totem lake Business District zones, parcels with an assessed value of improvements which is < 50% of the assessed land value:
 - o In Totem Lake zones, parcels where the amount of development is less than or equal to 25% of the maximum development potential. The capacity of redevelopable parcels is calculated by first calculating the maximum allowed by existing zoning and then subtracting the existing development, resulting in the net additional development. Directions given in the tables below will supersede the above directions.
- **Developed** parcels that contain development, but are not determined to be redevelopable. These parcels are eliminated from the analysis.

For parcels with existing development, the determination of whether the parcel is classified as Redevelopable or Developed is based on the calculation of additional development potential, as discussed below.

Zoning

Development potential is calculated differently for parcels with different zoning. Four categories of zones are recognized:

- Low Density Zones Development potential is calculated based on two criteria:
 - There is sufficient area within a parcel to create one or more additional parcels compliant with the minimum lot area/ dwelling unit allowed by the applicable zoning (see table below)provided that all areas with slopes in excess of 25% shall be subtracted from the existing parcel size before calculating development potential; and
 - o For parcels large enough to be divided into only two lots, the assessed value of existing improvements is < 50% of the assessed land value.

<u>Formula:</u> Existing parcel size (minus 40%+ slope areas) <u>divided by</u> minimum lot area/dwelling unit <u>rounded down</u> to the nearest whole number <u>minus</u> existing dwelling units = total potential new dwelling units. When a parcel is vacant and not in common ownership with an adjacent developed parcel, one new dwelling unit is assigned to that parcel, regardless of parcel size. For redevelopable parcels which are of sufficient size to be divided into no more than two lots, eliminate all parcels with improvement value > 50% of land value.

• Multi-family Residential Zones Development potential is calculated based on the number of dwelling units per acre allowed by the zoning (see table below). It is assumed that vacant parcels will develop to their maximum permitted densities. However, for parcels with existing development, it is assumed that only apartment buildings with a density of ≤60% of the maximum permitted density are redevelopable and will add units up to the maximum permitted. It is assumed that parcels with condominium units will not redevelop, regardless of density. Parcels that contain an existing single family unit and are large enough to be developed with one additional unit will not be redeveloped unless the assessed value of the single family unit is ≤ 50% of the assessed value of the parcel.

<u>Formula:</u> Parcel size in acres <u>divided by</u> maximum density/acre <u>minus</u> existing dwelling units = total new dwelling units.

• Commercial, Industrial and Office Zones For these zones, development potential is calculated based on identified maximum Floor Area Ratios (FAR) and residential densities unique to each zone (see tables below). The FARs and densities are based on typical development intensities from recently constructed projects within the same or similar zones. All vacant parcels are fully developed.

In all zones, parcels with existing development are classified as redevelopable if the assessed value of existing improvements is < 50% of the assessed land value. Others are classified as fully developed.

In the TLBD zones, an alternative methodology will also be used in which parcels are classified as redevelopable if the amount of existing development is less than 25% of the maximum permitted development.

Formulae:

- o **Nonresidential uses**: Parcel in square feet <u>times</u> maximum nonresidential FAR <u>minus</u> existing building square feet = total new building square feet.
- Residential Uses: Parcel size in square feet <u>times</u> maximum residential FAR <u>divided by</u> 43,560 (square feet/acre) <u>times</u> maximum dwelling units per acre <u>minus</u> existing dwelling units = total new dwelling units

• Institutional Zones Some zones allow primarily institutional uses, such as hospitals, and colleges. Parcels in these zones will be. In these zones, future development will be inserted on a case by case basis based on conversations with representatives of the institutions.

Preapproved Development

For some parcels, new development has already been approved and the amount of expected new development is known, in which case the expected future development is directly assigned, rather than derived from the capacity model. In such cases, the expected development is noted in the tables in the following section of this document. These parcels are removed before running the capacity model using the formulae for each zone. After running model, the assigned development potential for the parcels should then be manually added.

Maximum Development Potential by Zone

Note: Some zones have a parenthetical note following the name of the zones on the zoning map. The note is not part of the name of the zone.

• Low Density Zones

Zone	Minimum Lot Area/ DU	Notes
RS & RSX 5.0, PLA 6C & E	5000 sq. ft.	
RS 6.3	6300 sq. ft.	
RS & RSX 7.2	7200 sq. ft.	
RS & RSX 8.5	8500 sq. ft.	
RS & RSX 12.5, WD II	12,500 sq. ft.	
RS & RSX 35	35,000 sq. ft.	
RSA 1	43,560 sq. ft.	1 unit/ acre
RSA 4	10,890 sq. ft.	4 units/ acre
RSA 6, PLA 3C	7,260 sq. ft.	6 units/ acre
RSA 8	5,445 sq. ft.	8 units/ acre
PLA 16	26,000 sq. ft.	

Zoning

Zoning = Low Density Residential

Developed Parcels

- o Land Use: Single Family
- o Parcel size is < 2x Minimum lot area/DU.

Vacant Parcels

- o Land Use: Vacant
- Calculate development potential by dividing the Parcel size by the Maximum lot area/DU and round down to the closest whole number. In RS and RSX zones where the number of lots calculates to three or more, reduce parcel size by 5% to account for easements or rights of way dedication, and then recalculate.

Redevelopable Parcels

- Land Use = Single Family
- o Parcel size is $\geq 2x$ Maximum lot area/DU.
- Calculate additional development potential in the same way as for vacant lots but subtract the existing dwelling units.

Multi-Family Residential Zones

ZONE	Maximum Density	Notes
PLA 2	1 unit/acre	
PLA 15B	7 units/ acre	
RM & RMA 5.0, PLA	9 units/acre	

9, PLA 6H		
RM & RMA 3.6, WD-I	14 units/acre	Figures include
& WD-III, PLA 3B, PLA		20% affordable
6 F, & 7C		housing density
RM & RMA 2.4, PLA	21 units/acre	bonus
6I & K, PLA 7A		
RM & RMA 1.8, PLA	28 units/acre	
5A, D & E, PLA 6A, D		
& J, PLA 7B		
PLA 17	If site > 2 acres: 14 units/acre;	
	If < 2 acres: 1 unit/ 7200 sq. ft.	

Zoning

Zoning = Medium or High Density Residential

Developed Parcels

- Land Use = Multi-Family
- Existing DU/acre is > .60 of the Maximum DU/acre or the parcel is in condominium ownership regardless of the existing DU/acre.

Vacant Parcels

- Land Use = Vacant
- Calculate development potential by dividing the Parcel size (square feet) by 43,560 (square feet in an acre) then multiplying the result by the Maximum Density (DU/acre). Round up or down to the nearest whole number.

Redevelopable Parcels

- Land Use = Multi-Family
- \circ Existing DU/ acre is \leq .60 of the *Maximum DU/acre* unless the parcel is in condominium ownership. If the existing land use is single family, only redevelop if the lot is > 5000 sq. ft. unless the date of house construction precedes 1980.
- o Calculate additional development potential in the same way as for vacant lots but subtract the existing dwelling units.
- Commercial, Industrial and Office Zones: Do separately for Each Category

Zoning

o Zoning = Commercial, Industrial or Office

Developed Parcels

- o Those parcels where the assessed value of improvements /assessed value of land is > .5.
- o In the TL zones, also use an alternative methodology in which the existing development is > .25 of the *Maximum development potential*.

Vacant Parcels

- o Land Use = Vacant
- o For each parcel, calculate the maximum development potential for each of the land uses indicated for the applicable zone in the charts below.

Redevelopable Parcels

- Land Use is not Vacant.
- The assessed value of improvements /assessed value of land is < .5.
- o In all TL zones, an alternative analysis will be prepared, consistent King County Buildable Lands methodology for urban centers, in which parcels are considered redevelopable if the existing development is ≤ .25 of the *Maximum development potential*.
- Calculate development potential in the same way as for vacant parcels but subtract the existing development.

Development Assumptions:

- An assumed maximum FAR was assigned to each category of use. The assigned FAR was based on recent developments.
- In mix use zones without a density limit, a residential density of 50 units/ 1.0 FAR of residential use was assumed.
- In density limited zones, the density was calculated based on the relative FAR devoted to residential use and an additional 20% was added for affordable housing. For example, in a PR 1.8 zone, the maximum density is 24 units/ acre. However, the assumed residential FAR is .2, approximately 30% of the total FAR of .65(the remaining .45 FAR was assumed for office use). Therefore, the residential density was calculated as follows: 24 x .3 x 1.2 = 9 units/ acre.

Office Zones

Zone	Maximum Development Potential		Notes
	Land Use/ FAR	Residential Density	
PO	Office: .65 FAR	NA	
PR 8.5	Office: .45 FAR	2 units/acre	Total FAR: .65
PR 5.0	Residential: .2 FAR	3units/acre	
PR 3.6, MSC 1,		4 units/ acre	
PLA 6B, PLA 17A			For Fairfax Hospital in PRA
PR 2.4, PRA 2.4		7 units/acre	1.8 zone, add 35,400 sq. ft.
PR 1.8, PRA 1.8,			new addition to existing
PLA 5B, MSC 4		9 units/ acre	development.
PLA 5C	Office: .45 FAR	75 units/acre	Total FAR: 2.0
	Residential: 1.55 FAR		
PLA 15A	Existing land uses		Do not redevelop.

Commercial Zones

Neighborhood & Community Business Zones

Zone	Maximum Development Potential		Notes
	Land Use/ FAR	Maximum Density	
BN,, BNA, MSC 2	Commercial : .25 FAR		Total FAR: 1.25
	Residential: 1.0 FAR	48 units/acre	
BC, BCX	Commercial: .25	48 units/ acre	
	Residential: 1.0 FAR		
BC 1, BC 2	Commercial: .25 FAR		Assumes 48 units/acre plus
	Residential: 1.0 FAR	57 units/acre	20% affordable housing
			bonus
MSC 3	Commercial: .2 FAR		Total FAR: 1.7
	Residential: 1.5 FAR	75 units/acre	

Central Business District

	Maximum Development Potential		Notes
Zone	Land Use/ FAR	Maximum Density	
CBD 1A, 1B, 4, 6	Commercial: .2 FAR		Total FAR: 3.0
& 8	Office: .3 FAR		
	Residential: 2.5 FAR	125 units/acre	
CBD 2	Commercial: .2 FAR		Total FAR: 1.0
	Office: .4 FAR		
	Residential .4 FAR	20 units/acre	
CBD 3, 7	Commercial: .2		Total FAR: 2.0
	Office: .2		

	Residential: 1.6	80 units/acre	
CBD 5A			Per Parkplace master plan: replace existing development with: 1,200,000 sq. ft. of office and 592,700 sq. ft. of commercial
CBD 5	Commercial: .2 FAR Office: 1.3 FAR		Total FAR: 1.5

Juanita Business District

Zone	Maximum Development Potential		Notes
	Land Use/ FAR	Maximum Density	
JBD 1 – Excludes	Commercial: .2 FAR		Total FAR: 2.0
Juanita Village	Residential: 1.8 FAR	40 units/acre	
JBD 1			Add 196 units and 7496 sq.
Juanita Village			ft. of commercial now
			under construction
JBD 2	Commercial: .2 FAR		Total FAR: 1.5
	Office: .3 FAR		
	Residential: 1.0 FAR	50 units/acre	
JBD 3	Office: .45 FAR		Total FAR: .65
	Residential: .2 FAR	7 units/acre	
JBD 4, 5 & 6	Office: .45 FAR		
	Residential: .2 FAR	10 units/acre	

North Rose Hill Business District

	Maximum Development Potential		Notes
Zone	Land Use/FAR	Maximum Density	
NRH 1A & 1B	Commercial: .2 FAR		Total FAR: 2.0
	Office: .2 FAR		
	Residential: 1.6 FAR	80 units/acre	
NRH 2 - 6	Office: .65 FAR		

Rose Hill Business District

	Maximum Development Potential		Notes
Zone	Land Use/FAR	Maximum Density	
RH 1A	Commercial: .3 FAR		Total FAR: 2.0
	Office: .85 FAR		Do not redevelop Costco.
	Residential: .85 FAR	40 units/acre	
RH 1B	Office: .65 FAR		Do not redevelop Costco
			parking lot.
RH 2A	Commercial: .3 FAR		Total FAR: 2.0
	Office: .85 FAR		Do not redevelop Lee
	Residential: .85 FAR	40 units/acre	Johnson auto.
RH 2B	Commercial: .3 FAR		Total FAR: 2.0 Do not
	Office: .85 FAR		redevelop Lee Johnson auto.
	Residential: .85 FAR	40 units/acre	
RH 2C	Office: .85 FAR		Do not redevelop Lee
			Johnson auto
RH 3	Commercial: .3		Total FAR: 2.0
Rose Hill	Office: .85		
Center	Residential: .85	40 units/acre	
RH 4	Office: .65 FAR		

RH 5 A, B & C	Commercial: .3 FAR		
RH 7	Commercial: .3 FAR		Total FAR: 1.5
Rose Hill	Office: .6 FAR		
Village	Residential: .6 FAR	30 units/acre	
RH 8	Office: .65 FAR		

Totem Lake Business District

Zone	Maximum Development Potential		Notes
	Land Use /FAR	Maximum Density	
TL 1A	Office: 2.0 FAR		
TL 1B	Office: 1.0 FAR		
	Residential: 2.0 FAR	100 units/acre	
TL 2	Commercial: .3 FAR Office: .7 FAR		Per 2006 TL Mall master plan: replace existing development with 144,000 sq. ft. of office, 622,000 sq. ft. commercial & 226 dwelling units. Commercial includes cinema.
TL 4A, B & C	Commercial: .3 FAR Office: 1.5 Residential: .7	35 units/acre	Total FAR: 2.5
TL 5	Commercial: .2 FAR Office: 1.8 FAR Residential:.5 FAR	25 units/acre	Total FAR: 2.5
TL 6A & B	Commercial: .3 Residential: 2.2	120 units/acre	Total FAR: 2.5
TL 7 (E of 132 nd Ave NE)	Office: .35 FAR Industrial: .3 FAR		Total FAR: .65
TL 7 (S of Cross Kirk Corridor)	Commercial: .3 FAR Office: .35 FAR		Total FAR: .65
TL 8	Commercial: .3 FAR Residential: 2.2 FAR	120 units/acre	Total FAR: 2.5
TL 9A	Office: .35 FAR Industrial: .3 FAR		
TL 9B:	Residential	9 units/ acre	
TL 10A	Office: .75 FAR		
TL 10B & C	Office: .75 FAR Residential: .25 FAR	12 units/acre	Total FAR: 1.0
TL 10D	Office: 1.8 FAR Residential: .2 FAR	10 units/acre	Total FAR: 2.0
TL 10E	Office: 2.0 FAR		

Yarrow Bay Business District

	Maximum Development Potential		Notes
ZONE	Land Use/FAR	Maximum Density	
YBD 1			Develop proposed TOD site with 242 units and 6,672 sq. ft. of commercial.
YBD 2 & 3	Commercial: .2 FAR Office: .65 FAR Residential: .65 FAR	30 units/acre	Total FAR: 1.5

Industrial Zones

ZONE	Land Use/ FAR	Notes
LIT, PLA 6G (2)	Office: .65 FAR	Develop Google site in PLA 6G with 160,000 sq. ft. of office.

Institutional Zones

Zone	New Development	Notes
TL3A - D	200,000 sq. ft. built but unoccupied plus 78,000 sq. ft. approved for building.	Assume employment at same rate as office.
PLA 1	252 additional students	160 existing employees and 948 students = .17 employee/ student
PLA 14	465 additional students	200 existing employees for 3211 students = .06 employee/ student

<u>Adjustments</u> A number of factors typically reduce the potential for parcels to be developed or achieve maximum intensity. Consequently, the analysis should make the following adjustments:

- Pre-development Parcel Size Reduction for Rights of Way/ Access Easements: An adjustment is made to account for a portion of the land being set aside for rights of way or access easements. In reality, the amount of this set aside varies from property to property. However, for the purpose of this analysis, the following average reductions are assumed:
 - o Low Density Residential (Single Family) Zones:
 - For all parcels in RSA zones and for parcels divided into only two lots in other low density zones: no deduction for rights of way or easements;
 - For all other parcels in low density zones (i.e. parcels which are large enough to be divided into three or more lots and not in RSA zones): Reduce parcel size by 5% to account for ROW dedication.
 - o All Other Zones: Reduce parcel size by 2% to account for ROW dedication.
- Adjustments for Critical Areas: Using the GIS critical areas maps, the area occupied by wetlands, streams and buffers is deducted from the parcel area prior to calculating development capacity. For this analysis, the width of all buffers is assumed to be 50'.
- Post Development Reductions for Market Factors: Not all land that is theoretically ripe for
 development is likely to be developed due to general market conditions, personal decisions by
 property owners or land acquisition for public purposes. To account for these factors, the number
 of new dwelling units and nonresidential floor area is reduced as follows:
 - o 5% on all vacant parcels;
 - o 10% on all other redevelopable parcels; and
 - No reduction on parcels with special generators.

Calculation of Households and Employees:

- **New Households:** Total new households will equal the total number of dwelling units <u>minus</u> 5% to account for vacancies.
- New employees :
 - 1. Calculate the number of new employees by using the following number of employees/ 1000 square feet of occupied floor area minus 5% to account for vacancies:

- Office: 4 employees/ 1000 square feet;
- Commercial: 2 employees/ 1000 square feet;
- 2. For the following institutional zones, use the following figures:
 - TL 3A-D (Evergreen Healthcare): 1112 new employees (based on 4 employees/ 1000 sq. ft. of floor area, including presently unoccupied area.
 - PLA 1 (Northwest University): 43 new employees (based on expected growth of 152 new students and the present ratio of .17 employee/ new student).
 - PLA 14 (Lake Washington Institute of Technology): 110 new employees (based on estimates from LWIT).
- 3. Home occupations: 670 new employees (based on the present ratio of 2556 FTE home occupation employees out of 37,221 total dwelling units, or one home occupation employee / 14.56 housing units).