

July 28, 2017

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206-464-7134

**Subject: City of Tukwila - Response to Comment on Assumed Land Use Growth in the Comprehensive Plan Review**

Dear Laura:

The Puget Sound Regional Council (PSRC) reviewed the City of Tukwila's draft Comprehensive Plan Elements in 2013 and identified that the land use growth forecast by 2031 in the Transportation Element was higher than current (2016) PSRC growth assumptions. PSRC's review noted that the employment growth for the City of Tukwila is almost double the current forecast of 15,500 job growth between 2010 and 2031.

The discrepancy in the land use growth allocation occurred because the City of Tukwila updated the Transportation Element between 2010 and 2012, in part because of a major planned development in the southern portion of the city that could potentially impact the long-term transportation needs for the City. At that time, the PSRC regional land use forecasts had not yet been adjusted to account for the magnitude of the 2008-2009 recession and resulting slowdown in the real estate market. The other elements of the Tukwila Comprehensive Plan were updated during the 2013-2015 period and incorporated the more recent (lower) growth forecasts from the PSRC.

In response to this comment, the City hired Fehr & Peers to reallocate land use growth to be consistent with current PSRC Land Use Vision and to re-run the City's travel demand model. Key findings include:

- The 2031 forecasted traffic volumes are not expected to grow as much within the City compared to the previous analysis (VMT is lower by three percent).
- Most of the forecasted traffic volume decreases are in the Tukwila South area, where growth is not as rapid as was previously anticipated and where most of the employment growth was reduced.



- No changes are recommended to the proposed transportation capital improvement projects. Most of the proposed transportation improvement projects are recommended to remain as they were proposed for reasons beyond expanding capacity, including breaking up large blocks for more walkable/bikeable neighborhoods, and filling in missing gaps in the pedestrian and bicycle networks. The large roadway projects to facilitate growth in Tukwila South were completed by the developer in the 2010-2012 timeframe.

Attached is a memo detailing the analysis to reallocate land use growth to be consistent with current forecasts, as well as two maps that illustrate the distribution of household and employment growth by 2031 within the City.

If you have any questions or comments, please feel free to give me a call at 206-576-4226.

Sincerely,

FEHR & PEERS

Carmen Kwan  
Transportation Engineer/Planner

SE16-0498

**Attachment:**

- Tukwila 2031 Land Use Revision – Travel Demand Modeling Response to PSRC Comments Memo

## MEMORANDUM

Date: December 30, 2016  
To: Robin Tischmak and Bob Giberson, City of Tukwila  
From: Carmen Kwan and Chris Breiland, Fehr & Peers  
Subject: **Tukwila 2031 Land Use Revision – Travel Demand Modeling Response to PSRC Comments**

*SE16-0498*

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The Puget Sound Regional Council (PSRC) reviewed the City of Tukwila’s draft Comprehensive Plan Elements in 2013 and identified that the land use growth forecast by 2031 in the Transportation Element was higher than current PSRC growth assumptions. In response to this comment, the forecast land use growth was revised to be consistent with PSRC assumptions and the City’s travel demand model was re-run. This document details the analysis process and summarizes the new model results. The transportation capital improvement projects previously proposed were also reviewed to identify if any changes in the project list would be necessary based on the new growth forecasts.

### BACKGROUND

The City of Tukwila updated the Transportation Element of the Comprehensive Plan between 2010 and 2012, in part because of a major planned development in the southern portion of the city that could potentially impact the long-term transportation needs for the City. At that time, the PSRC regional land use forecasts had not yet been adjusted to account for the magnitude of the 2008-2009 recession and resulting slowdown in the real estate market nationwide. In general, the earlier PSRC land use forecasts predicted more growth by 2031 than the current (2016) land use forecasts. The other elements of the Tukwila Comprehensive Plan were updated during the 2013-2015 period and incorporated the more recent (lower) growth forecasts from the PSRC. The rest of this memorandum describes the method used to align the Transportation Element growth forecasts with the rest of the Comprehensive Plan.



## ANALYSIS METHODOLOGY

The previous analysis completed for the Transportation Element assumed a growth of 27,665 jobs and 4,905 households by 2031. PSRC’s review noted that this employment growth for the City of Tukwila is almost double the current forecast of 15,500 job growth between 2010 and 2031. PSRC also forecasts a slightly lower number of households in the city by 2031 (4,800 new households).

### Land Use Revision

In response to these comments, the 2031 land use assumptions were revised and the City’s travel demand model was re-run to evaluate how traffic forecasts would change from the previous 2031 analysis (prepared with the higher growth forecasts). Key assumptions are listed below:

- Land use forecasts were revised to match the Land Use Vision (LUV.1) Dataset, the most recent land use forecasts released by the PSRC in September 2015.
- Land use growth assumptions in the Southcenter Subarea of Tukwila remained relatively consistent with the Southcenter Regional Growth Center EIS analysis prepared in 2014. Growth was adjusted elsewhere in the City based on the LUV.1 Dataset.

A summary of the assumed land use growth is presented in **Table 1**. The revised 2031 forecasts show that the land use assumptions are consistent with PSRC growth assumptions of 4,800 households and 15,500 jobs between 2010 and 2031. The revised 2031 land use has a decrease of 105 households and 14,140 jobs compared to the previous analysis. Land use growth assumptions by TAZ are in **Attachment A**.

**TABLE 1. CITY OF TUKWILA LAND USE ASSUMPTIONS**

Scenario	Total Households and Jobs	Growth from 2010
2013 Base Year	7,435 Households, 47,540 Jobs	+35 Households, +1,970 Jobs <sup>1</sup>
Revised 2031 Forecasts	12,200 Households, 61,070 Jobs	+4,800 Households, +15,500 Jobs

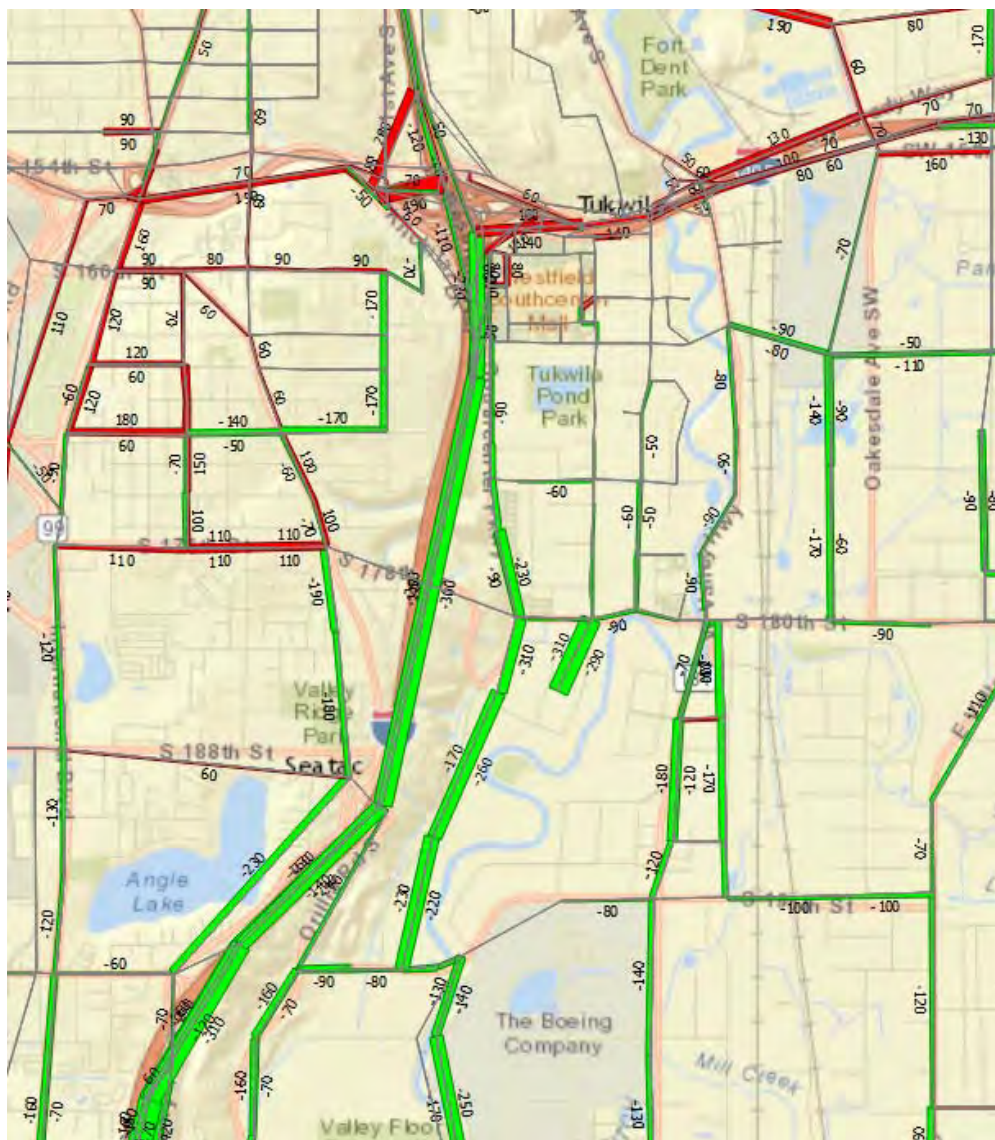
<sup>1</sup>2010 to 2013 household and job growth estimates are from PSRC’s Covered Employment Estimates and Residential Building Permit Summaries. Source: City of Tukwila, PSRC, Fehr & Peers, 2016.



## MODELING RESULTS

The City's travel demand model was re-run with the revised land use growth assumptions described earlier. An example travel demand model difference plot of the change in PM peak hour traffic volume per travel lane is shown in **Figure 1**. The green bars show a decrease in vehicle traffic and the red bars show an increase in vehicle traffic compared to the previous 2031 analysis.

**FIGURE 1. 2031 TRAVEL DEMAND MODEL DIFFERENCE PLOT**



Source: Fehr & Peers, 2016.



While there is some model “noise” in the difference plot results where some routes have minor increase or decrease in vehicle volumes compared to before, the overall observations from the new travel model runs are summarized below.

- **The 2031 forecasted traffic volumes are not expected to grow as much within the City of Tukwila compared to the previous analysis.** The slightly lower vehicle traffic growth is reasonable based on the reduction of approximately 14,100 jobs and 100 households throughout the City by 2031 compared to the previous analysis. The new 2031 model run’s slightly lower traffic growth is minor as there is only a three percent decrease in vehicle-miles-travelled (VMT) on City streets during the PM period compared to the previous analysis (excluding freeways).
- **Most of the forecasted traffic volume decreases are south of S 180th Street.** This is expected as the growth near Southcenter Regional Growth Center did not change much from the earlier analysis, and most of the employment reduction was in the Tukwila South area, where growth is not as rapid as was anticipated in the earlier forecasts. Overall, City staff felt this area had the least amount of momentum for growth compared to the rest of the City.
- **No changes are recommended to the proposed transportation capital improvement projects.** A review of the previously recommended projects was completed based on the new model run results. In general, all the projects identified in the Transportation Element are recommended to remain because:
  - Most of the street extension projects were recommended to reduce block size and improve mobility for all modes. These projects would improve street grid connectivity, improve the walkability by breaking up large blocks, and potentially improve emergency response times. While there is a minor decrease in vehicle volumes in the new model run compared to the previous results, projects are recommended to remain to help the City achieve the desired urban form and street network connectivity pattern.
  - Intersection improvements at various intersections such as adding turn pockets are still recommended as the model shows that turning volumes that triggered the additional turn lanes will not decrease enough to eliminate the need for the additional lanes.
  - Many projects were identified to enhance pedestrian and/or bicycle facilities. While growth is slightly lower with the new land use forecasts, the need for a



comprehensive and connective pedestrian and bicycle network is not altered by the revised land use forecasts.

## CONCLUSION

A new travel model run was completed with revised 2031 land use growth reallocated to be consistent with PSRC's vision of 15,500 new jobs and 4,800 new households between 2010 and 2031 in Tukwila. Based on the results of the new travel model run, no changes to the Transportation Element project list are recommended. While the traffic growth by 2031 is not expected to be as high as the previous analysis (VMT is lower by three percent), most of the proposed transportation improvement projects are recommended to remain as they were proposed for reasons beyond expanding capacity, including breaking up large blocks for more walkable/bikeable neighborhoods, and filling in missing gaps in the pedestrian and bicycle networks.

### **Attachment:**

Attachment A: Land Use Totals by TAZ & TAZ Map

# Attachment A: Land Use Assumptions and TAZ Map

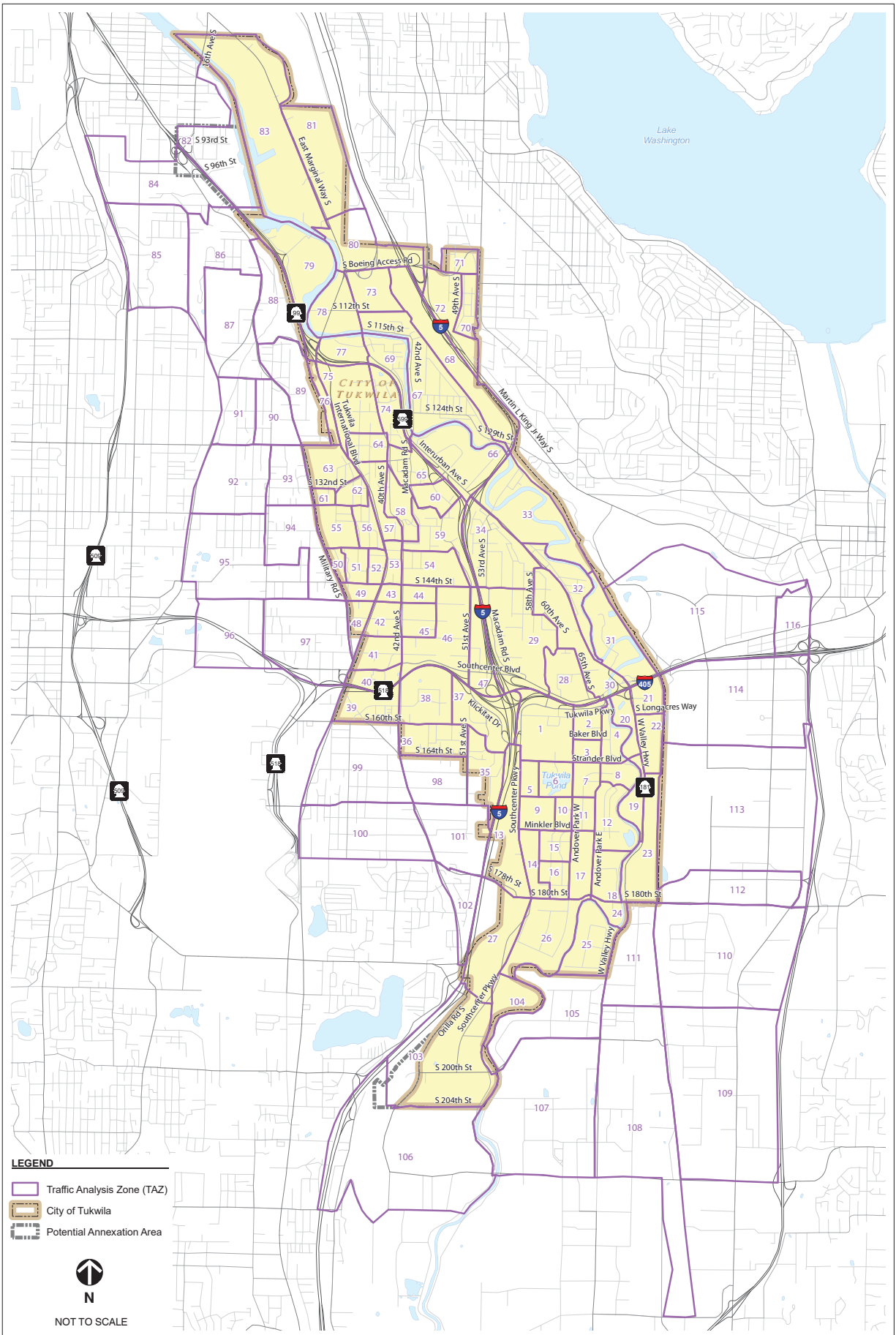
## Revised City of Tukwila Travel Demand Model Land Use

	City of Tukwila	
	Households	Employment
2013 Base Year	7,435	47,540
Old 2031 Land Use	12,340	75,205
<i>Previous 2013 - 2031 Growth</i>	<i>4,905</i>	<i>27,665</i>
<b>New 2031 Revision</b>	<b>12,200</b>	<b>61,070</b>
2010 - 2013 Growth (PSRC Estimates)	35	1,970
2013 - 2030 Growth	4,765	13,530
<b>2010 - 2030 Total Growth</b>	<b>4,800</b>	<b>15,500</b>

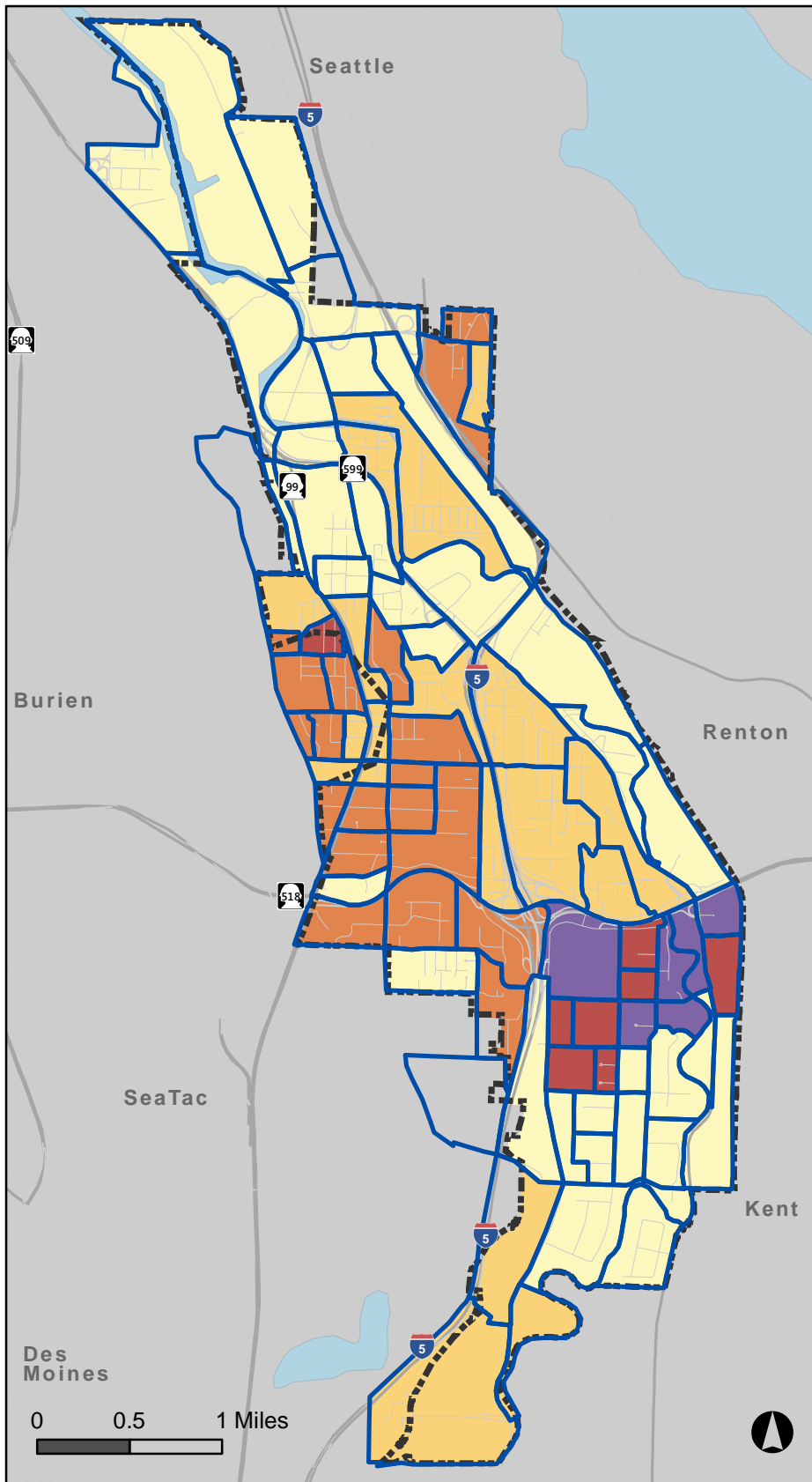
Subarea	TAZ	2013 Base Year		2031 Land Use Revision Consistent with PSRC Land Use Vision		Old 2031 Land Use	
		TOTALS		TOTALS		TOTALS	
		HH	EMP	Total HH	Total EMP	Total HH	Total EMP
		7,435	47,540	12,200	61,070	12,340	75,205
x	1	0	6,166	217	7,754	224	7,754
x	2	0	734	136	866	140	866
x	3	0	294	136	426	140	426
x	4	0	943	295	984	305	984
x	5	0	518	155	801	160	801
x	6	0	378	143	528	148	528
x	7	0	749	302	1,219	312	1,219
x	8	0	551	229	592	236	592
x	9	0	931	143	1,607	148	1,607
x	10	0	1,004	143	1,276	148	1,276
x	11	0	550	0	618	0	618
x	12	0	1,063	0	1,131	0	1,131
x	13	2	702	0	1,106	0	1,106
x	14	0	1,172	0	1,645	0	1,645
x	15	0	559	0	626	0	626
x	16	0	271	0	339	0	339
x	17	0	604	0	672	0	672
x	18	0	1,139	0	1,206	0	1,206
	19	1	316	1	367	21	551
x	20	2	181	332	270	343	270
x	21	0	248	291	278	300	278
x	22	0	255	192	358	198	358
	23	3	928	0	1,088	3	1,152
x	24	0	713	0	781	0	781
	25	0	1,100	0	1,328	0	1,325
	26	1	1,115	1	1,165	113	3,552
	27	4	86	52	603	113	3,552
	28	113	525	156	531	156	596
	29	1,080	111	1,107	144	1,104	270
	30	563	281	596	282	596	281
	31	0	781	12	915	12	940
	32	8	950	8	1,108	8	1,335
	33	88	128	100	287	100	353
	34	558	370	588	371	588	529
	35	132	5	228	6	200	5
	36	224	56	234	56	224	56



	37	5	0	83	0	68	0
	38	127	6	205	17	188	6
	39	214	252	273	489	252	472
	40	353	13	353	13	384	93
	41	271	188	323	188	304	268
	42	162	75	225	199	212	184
	43	95	49	132	81	124	78
	44	35	7	102	13	96	7
	45	66	6	136	12	128	6
	46	475	36	540	41	508	36
	47	18	239	34	314	32	311
	48	123	267	192	537	168	518
	49	279	141	299	176	308	170
	50	85	8	179	8	148	8
	51	158	18	216	18	192	18
	52	149	150	169	170	176	179
	53	114	42	149	161	164	151
	54	89	40	148	44	152	40
	55	98	18	184	18	160	18
	56	158	17	224	194	200	247
	57	188	58	222	105	216	221
	58	64	2	120	3	128	2
	59	158	22	201	35	220	22
	60	20	721	20	949	20	945
	61	34	12	116	12	96	12
	62	112	4	222	4	184	4
	63	77	234	102	315	100	306
	64	104	52	119	52	116	92
	65	71	135	81	333	100	389
	66	0	3,125	0	3,365	0	3,351
	67	392	274	414	275	404	277
	68	0	0	0	0	0	0
	69	109	1	140	2	172	1
	70	128	4	156	4	152	4
	71	41	5	107	12	104	5
	72	13	35	78	35	76	35
	73	0	250	0	860	0	1,200
	74	15	2,341	13	2,391	15	2,381
	75	10	1,582	9	1,825	10	2,532
	76	13	101	12	308	13	327
	77	0	807	0	850	0	847
	78	0	2,540	0	3,444	0	3,490
	79	0	213	0	213	0	394
	80	0	500	0	502	0	500
	81	0	361	0	958	0	1,312
	83	17	6,110	17	6,976	17	7,061
	103	16	2	52	607	113	3,552
	104	0	0	34	605	78	3,552



# Projected Household Growth by Traffic Analysis Zone 2010-2031



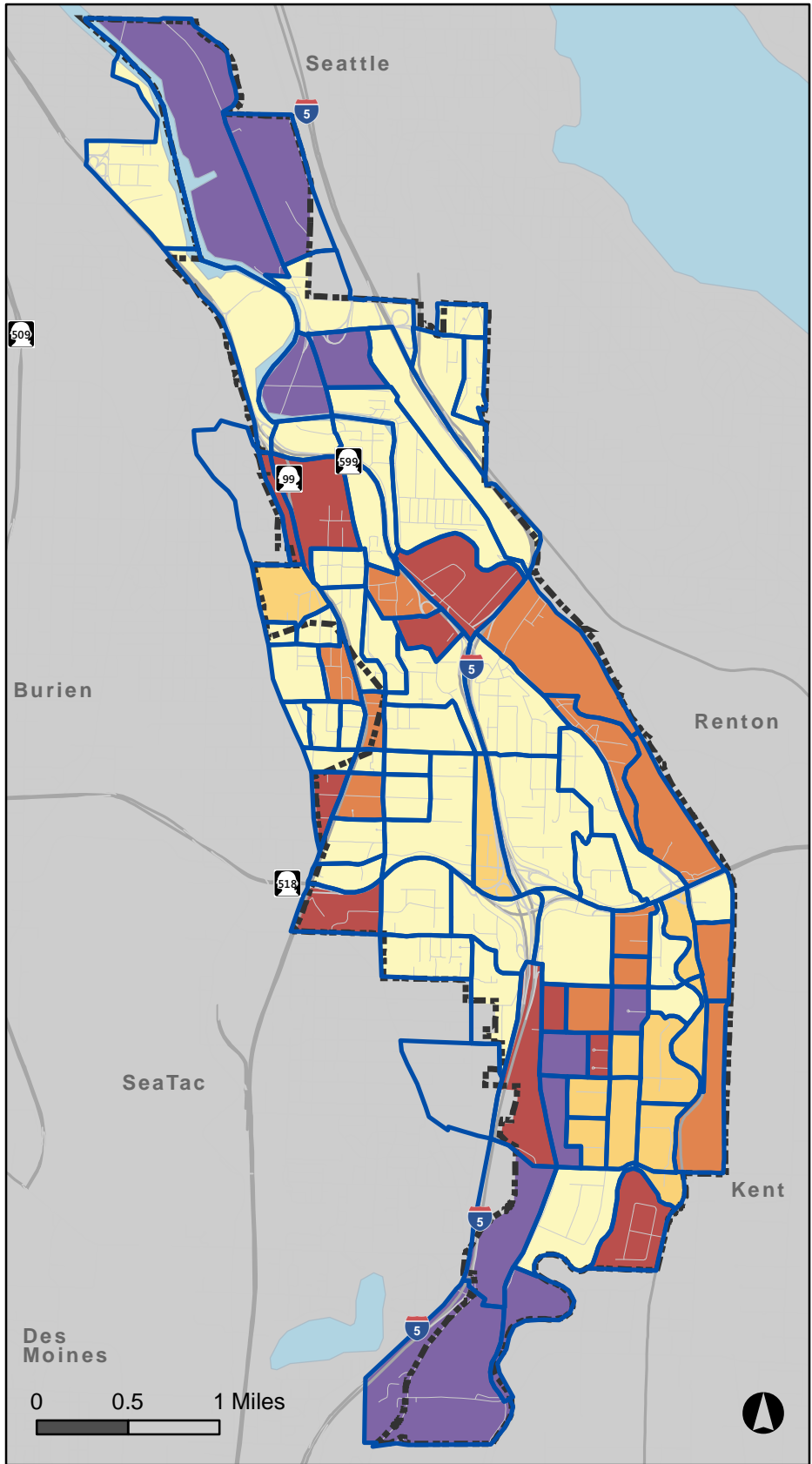
## Legend

City Limits

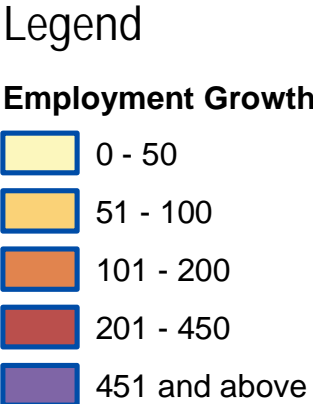
### Household Growth

- 0 - 15
- 16 - 50
- 51 - 100
- 101 - 200
- 201 and above

**Revised Map 13-1: Projected Household Growth**



**Projected  
Employment  
Growth by  
Traffic  
Analysis  
Zone  
2010-2031**



**Revised Map 13-2: Projected Employment Growth**