APPENDIX C: PERFORMANCE MEASURE WEIGHTING EXAMPLES AND RESULTS

Updated October 7, 2015

Index:

Weighting: **Equally Weighted**

Updated: 10/7/2015

Factor	Community Outcome	Performance Measure	Weighting*		Scenario 1.2	Scenario 2.1	Scenario 3.1	SAAM-1	SAAM-2	SAAM-3
Factor 1: Efficient accommodation of identified land needs										
	A. Complete Communities and Great Neighborhoods		H	1	3.4	5.0	4.0	2.4	3.8	3.2
		(1) Housing units within walking distance of existing & planned schools in 2028	M	1	2	5	3	5	4	2
		(2) Housing units within walking distance of existing & planned parks and trails in 2028	L	1	5	5	5	4	5	5
		(3) Housing units within walking distance of commercial services in 2028	H	1	4	5	5	1	3	2
		(4) Jobs/housing balance (by subarea)	M	1	3	5	4	1	4	2
		(5) Opportunities for master planning	M	1	3	5	3	1	3	5
	B. Efficient, Timely Growth		H	1	5.0	4.2	3.8	2.6	3.6	4.2
		(1) Total urbanized acres	L	1	5	4	4	3	4	5
		(2) Gross density for new housing in 2028	VH	1	5	5	3	1	4	5
		(3) net density for new jobs in 2028	L	1	5	5	5	5	5	5
		(4) percent of urbanized acres on parcels under 20 acres and contiguous to existing UGB	M	1	5	3	3	2	2	1
		(5) vacant vs. developed land included	L	1	5	4	4	2	3	5
Factor 2: Orderly and economic provision of public facilities and services										
	A. Balanced Transportation System		H	1	3.1	3.7	3.0	2.9	2.5	3.1
		(1) Total VMT per capita	VH	1	2	3	3	2	2	2
		(2) Average trip length	M	1	2	5	4	2	2	3
		(3) Household VMT per capita	M	1	4	5	3	1	2	2
		(4) Congestion	H	1	4	3	2	5	3	4
		(5) walk/bike safety and connectivity	M	1	4	5	3	4	3	4
		(6) System connectivity & progression of system hierarchy	M	1	3	4	3	3	3	4
		(7) Mode split	M	1	3	3	3	3	2	3
		(8) Average weekly walk trips per capita	L	1	3	3	3	3	2	3
		(9) Proximity to transit corridors	M	1	3	3	3	3	3	3
		(10) Percent of housing and jobs within 1/4 mile of transit	L	1	3	3	3	3	3	3
		(11) Intersection density	M	1	3	2	2	3	3	3
	B. Cost Effective Infrastructure		H	1	3.0	3.5	3.0	2.7	3.4	2.7
		Transportation Infrastructure								
		(1) Total cost of transportation improvements required	VH	1	1	4	3	3	4	5
		(2) Cost per acre of transportation improvements	M	1	2	3	3	4	3	3
		(3) New linear miles of roadway	L	1	3	4	3	2	3	3
		Sanitary Sewer Infrastructure								
		(4) Efficiency of additional sewer system improvements required	VH	1	4	3	3	2	2	1
		(5) Initial capital cost of sewer system improvements required	M	1	4	3	3	1	3	1
		(6) Initial capital cost of sewer system improvements per acre of development	M	1	3	4	3	2	2	1
		Drinking Water Infrastructure								
		(7) Water system improvements required in city water district	L	1	5	5	4	5	4	5
		(8) Capacity of Avion Water system								
		Storm Water Infrastructure								
		(9) Total impervious area for new development	L	1	4	4	3	3	3	4
		(10) Acres of new development with welded tuff geology	L	1	3	3	2	2	5	1
		(11) Acres of new development within DWPA	L	1	1	2	3	3	5	3
Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)										
	A. Quality Natural Environment (Environmental and Energy Consequences)		H	1	3.5	3.7	2.8	2.2	3.2	3.2
		(1) Development in wildlife areas	M	1	4	3	2	1	5	2
		(2) Linear distance of riparian areas adjacent to development	M	1	5	5	4	3	3	5
		(3) Wildfire hazard	H	1	3	3	2	2	3	3
		(4) Greenhouse gas emissions	L	1	3	4	3	2	2	3
		(5) Energy Use	L	1	3	3	3	3	3	3
		(6) Average Water Consumption per Household	L	1	3	4	3	2	3	3
	B. Housing Options and Affordability (Social Consequences)		H	1	4.0	4.5	3.0	4.5	4.0	2.5
		(1) Average cost of new single family housing	VH	1	5	5	2	4	3	2
		(2) Housing mix of new housing (subarea balance)	L	1	3	4	4	5	5	3
	C. Strong Diverse Economy (Economic Consequences)		H	1	4.0	3.7	4.0	4.3	4.3	4.0
		(1) site suitability for large lot industrial use	L	1	4	3	3	4	3	3
		(2) site suitability for areas identified for industrial uses	H	1	4	3	5	5	5	4
		(3) site suitability for areas identified for commercial uses	H	1	4	5	4	4	5	5
Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occu										
	A. Compatibility with Farms and Forests		H	1	3.7	3.3	2.3	3.0	2.7	3.3
		(1) Farm practices & high value farm land adjacent to expansion areas	H	1	3	3	2	3	2	4
		(2) impact to irrigation districts	M	1	4	3	2	3	1	3
		(3) Proximity of expansion areas to designated forest land	M	1	4	4	3	3	5	3
Overall					**3.7**	**3.9**	**3.2**	**3.1**	**3.4**	**3.3**

Key: H = High Importance; M = Moderate Importance; L = Low Importance; N = Excluded. Very Good; Good; Fair; Poor; Very Poor

* Weighting for performance measures is relative to others within a single community outcome. Weighting for community outcomes is against other community outcomes. Weighting is provided as an example only and is subject to further refinement.

Weighting: **Lightly Weighted**

Updated: 10/7/2015

Factor	Community Outcome	Performance Measure	Weighting*		Scenario 1.2	Scenario 2.1	Scenario 3.1	SAAM-1	SAAM-2	SAAM-3
Factor 1: Efficient accommodation of identified land needs										
	A. Complete Communities and Great Neighborhoods		H	1	3.3	5.0	4.0	2.1	3.6	2.9
		(1) Housing units within walking distance of existing & planned schools in 2028	M	0.6	2	5	3	5	4	2
		(2) Housing units within walking distance of existing & planned parks and trails in 2028	L	0.3	5	5	5	4	5	5
		(3) Housing units within walking distance of commercial services in 2028	H	1	4	5	5	1	3	2
		(4) Jobs/housing balance (by subarea)	M	0.6	3	5	4	1	4	2
		(5) Opportunities for master planning	M	0.6	3	5	3	1	3	5
	B. Efficient, Timely Growth		H	1	5.0	4.5	3.3	1.8	3.7	4.3
		(1) Total urbanized acres	L	0.3	5	4	4	3	4	5
		(2) Gross density for new housing in 2028	VH	2	5	5	3	1	4	5
		(3) net density for new jobs in 2028	L	0.3	5	5	5	5	5	5
		(4) percent of urbanized acres on parcels under 20 acres and contiguous to existing UGB	M	0.6	5	3	3	2	2	1
		(5) vacant vs. developed land included	L	0.3	5	4	4	2	3	5
Factor 2: Orderly and economic provision of public facilities and services										
	A. Balanced Transportation System		H	1	2.9	3.6	2.9	2.8	2.4	2.9
		(1) Total VMT per capita	VH	2	2	3	3	2	2	2
		(2) Average trip length	M	0.6	2	5	4	2	2	3
		(3) Household VMT per capita	M	0.6	4	5	3	1	2	2
		(4) Congestion	H	1	4	3	2	5	3	4
		(5) walk/bike safety and connectivity	M	0.6	4	5	3	4	3	4
		(6) System connectivity & progression of system hierarchy	M	0.6	3	4	3	3	3	4
		(7) Mode split	M	0.6	3	3	3	3	2	3
		(8) Average weekly walk trips per capita	L	0.3	3	3	3	3	2	3
		(9) Proximity to transit corridors	M	0.6	3	3	3	3	3	3
		(10) Percent of housing and jobs within 1/4 mile of transit	L	0.3	3	3	3	3	3	3
		(11) Intersection density	M	0.6	3	2	2	3	3	3
	B. Cost Effective Infrastructure		H	1	2.8	3.5	3.0	2.6	3.1	2.7
		Transportation Infrastructure								
		(1) Total cost of transportation improvements required	VH	2	1	4	3	3	4	5
		(2) Cost per acre of transportation improvements	M	0.6	2	3	3	4	3	3
		(3) New linear miles of roadway	L	0.3	3	4	3	2	3	3
		Sanitary Sewer Infrastructure								
		(4) Efficiency of additional sewer system improvements required	VH	2	4	3	3	2	2	1
		(5) Initial capital cost of sewer system improvements required	M	0.6	4	3	3	1	3	1
		(6) Initial capital cost of sewer system improvements per acre of development	M	0.6	3	4	3	2	2	1
		Drinking Water Infrastructure								
		(7) Water system improvements required in city water district	L	0.3	5	5	4	5	4	5
		(8) Capacity of Avion Water system								
		Storm Water Infrastructure								
		(9) Total impervious area for new development	L	0.3	4	4	3	3	3	4
		(10) Acres of new development with welded tuff geology	L	0.3	3	3	2	2	5	1
		(11) Acres of new development within DWPA	L	0.3	1	2	3	3	5	3
Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)										
	A. Quality Natural Environment (Environmental and Energy Consequences)		H	1	3.6	3.6	2.7	2.1	3.3	3.2
		(1) Development in wildlife areas	M	0.6	4	3	2	1	5	2
		(2) Linear distance of riparian areas adjacent to development	M	0.6	5	5	4	3	3	5
		(3) Wildfire hazard	H	1	3	3	2	2	3	3
		(4) Greenhouse gas emissions	L	0.3	3	4	3	2	2	3
		(5) Energy Use	L	0.3	3	3	3	3	3	3
		(6) Average Water Consumption per Household	L	0.3	3	4	3	2	3	3
	B. Housing Options and Affordability (Social Consequences)		H	1	4.7	4.9	2.3	4.1	3.3	2.1
		(1) Average cost of new single family housing	VH	2	5	5	2	4	3	2
		(2) Housing mix of new housing (subarea balance)	L	0.3	3	4	4	5	5	3
	C. Strong Diverse Economy (Economic Consequences)		H	1	4.0	3.9	4.3	4.4	4.7	4.3
		(1) site suitability for large lot industrial use	L	0.3	4	3	3	4	3	3
		(2) site suitability for areas identified for industrial uses	H	1	4	3	5	5	5	4
		(3) site suitability for areas identified for commercial uses	H	1	4	5	4	4	5	5
Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occu										
	A. Compatibility with Farms and Forests		H	1	3.5	3.3	2.3	3.0	2.5	3.5
		(1) Farm practices & high value farm land adjacent to expansion areas	H	1	3	3	2	3	2	4
		(2) impact to irrigation districts	M	0.6	4	3	2	3	1	3
		(3) Proximity of expansion areas to designated forest land	M	0.6	4	4	3	3	5	3
Overall					**3.7**	**4.0**	**3.1**	**2.9**	**3.3**	**3.2**

Key: H = High Importance; M = Moderate Importance; L = Low Importance; N = Excluded. Very Good; Good; Fair; Poor; Very Poor

* Weighting for performance measures is relative to others within a single community outcome. Weighting for community outcomes is against other community outcomes. Weighting is provided as an example only and is subject to further refinement.

Weighting: **Heavily Weighted**

Updated: 10/7/2015

Factor	Community Outcome	Performance Measure	Weighting*		Scenario 1.2	Scenario 2.1	Scenario 3.1	SAAM-1	SAAM-2	SAAM-3
Factor 1: Efficient accommodation of identified land needs										
	A. Complete Communities and Great Neighborhoods		H	1	3.3	5.0	4.0	1.9	3.5	2.7
		(1) Housing units within walking distance of existing & planned schools in 2028	M	0.5	2	5	3	5	4	2
		(2) Housing units within walking distance of existing & planned parks and trails in 2028	L	0.1	5	5	5	4	5	5
		(3) Housing units within walking distance of commercial services in 2028	H	1	4	5	5	1	3	2
		(4) Jobs/housing balance (by subarea)	M	0.5	3	5	4	1	4	2
		(5) Opportunities for master planning	M	0.5	3	5	3	1	3	5
	B. Efficient, Timely Growth		H	1	5.0	4.7	3.1	1.3	3.7	4.5
		(1) Total urbanized acres	L	0.1	5	4	4	3	4	5
		(2) Gross density for new housing in 2028	VH	3	5	5	3	1	4	5
		(3) net density for new jobs in 2028	L	0.1	5	5	5	5	5	5
		(4) percent of urbanized acres on parcels under 20 acres and contiguous to existing UGB	M	0.5	5	3	3	2	2	1
		(5) vacant vs. developed land included	L	0.1	5	4	4	2	3	5
Factor 2: Orderly and economic provision of public facilities and services										
	A. Balanced Transportation System		H	1	2.8	3.5	2.9	2.7	2.4	2.8
		(1) Total VMT per capita	VH	3	2	3	3	2	2	2
		(2) Average trip length	M	0.5	2	5	4	2	2	3
		(3) Household VMT per capita	M	0.5	4	5	3	1	2	2
		(4) Congestion	H	1	4	3	2	5	3	4
		(5) walk/bike safety and connectivity	M	0.5	4	5	3	4	3	4
		(6) System connectivity & progression of system hierarchy	M	0.5	3	4	3	3	3	4
		(7) Mode split	M	0.5	3	3	3	3	2	3
		(8) Average weekly walk trips per capita	L	0.1	3	3	3	3	2	3
		(9) Proximity to transit corridors	M	0.5	3	3	3	3	3	3
		(10) Percent of housing and jobs within 1/4 mile of transit	L	0.1	3	3	3	3	3	3
		(11) Intersection density	M	0.5	3	2	2	3	3	3
	B. Cost Effective Infrastructure		H	1	2.6	3.5	3.0	2.5	3.0	2.8
		Transportation Infrastructure								
		(1) Total cost of transportation improvements required	VH	3	1	4	3	3	4	5
		(2) Cost per acre of transportation improvements	M	0.5	2	3	3	4	3	3
		(3) New linear miles of roadway	L	0.1	3	4	3	2	3	3
		Sanitary Sewer Infrastructure								
		(4) Efficiency of additional sewer system improvements required	VH	3	4	3	3	2	2	1
		(5) Initial capital cost of sewer system improvements required	M	0.5	4	3	3	1	3	1
		(6) Initial capital cost of sewer system improvements per acre of development	M	0.5	3	4	3	2	2	1
		Drinking Water Infrastructure								
		(7) Water system improvements required in city water district	L	0.1	5	5	4	5	4	5
		(8) Capacity of Avion Water system								
		Storm Water Infrastructure								
		(9) Total impervious area for new development	L	0.1	4	4	3	3	3	4
		(10) Acres of new development with welded tuff geology	L	0.1	3	3	2	2	5	1
		(11) Acres of new development within DWPA	L	0.1	1	2	3	3	5	3
Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)										
	A. Quality Natural Environment (Environmental and Energy Consequences)		H	1	3.7	3.5	2.6	2.0	3.4	3.2
		(1) Development in wildlife areas	M	0.5	4	3	2	1	5	2
		(2) Linear distance of riparian areas adjacent to development	M	0.5	5	5	4	3	3	5
		(3) Wildfire hazard	H	1	3	3	2	2	3	3
		(4) Greenhouse gas emissions	L	0.1	3	4	3	2	2	3
		(5) Energy Use	L	0.1	3	3	3	3	3	3
		(6) Average Water Consumption per Household	L	0.1	3	4	3	2	3	3
	B. Housing Options and Affordability (Social Consequences)		H	1	4.9	5.0	2.1	4.0	3.1	2.0
		(1) Average cost of new single family housing	VH	3	5	5	2	4	3	2
		(2) Housing mix of new housing (subarea balance)	L	0.1	3	4	4	5	5	3
	C. Strong Diverse Economy (Economic Consequences)		H	1	4.0	4.0	4.4	4.5	4.9	4.4
		(1) site suitability for large lot industrial use	L	0.1	4	3	3	4	3	3
		(2) site suitability for areas identified for industrial uses	H	1	4	3	5	5	5	4
		(3) site suitability for areas identified for commercial uses	H	1	4	5	4	4	5	5
Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occu										
	A. Compatibility with Farms and Forests		H	1	3.5	3.3	2.3	3.0	2.5	3.5
		(1) Farm practices & high value farm land adjacent to expansion areas	H	1	3	3	2	3	2	4
		(2) impact to irrigation districts	M	0.5	4	3	2	3	1	3
		(3) Proximity of expansion areas to designated forest land	M	0.5	4	4	3	3	5	3
Overall					**3.7**	**4.0**	**3.0**	**2.7**	**3.3**	**3.2**

Key: H = High Importance; M = Moderate Importance; L = Low Importance; N = Excluded. Very Good; Good; Fair; Poor; Very Poor

* Weighting for performance measures is relative to others within a single community outcome. Weighting for community outcomes is against other community outcomes. Weighting is provided as an example only and is subject to further refinement.

Weighting: **Focus on Difference Makers**

Updated: 10/7/2015

Factor	Community Outcome	Performance Measure	Weighting*		Scenario 1.2	Scenario 2.1	Scenario 3.1	SAAM-1	SAAM-2	SAAM-3
Factor 1: Efficient accommodation of identified land needs										
	A. Complete Communities and Great Neighborhoods		H	1	3.7	5.0	4.6	1.3	3.2	2.2
		(1) Housing units within walking distance of existing & planned schools in 2028	M	0.1	2	5	3	5	4	2
		(2) Housing units within walking distance of existing & planned parks and trails in 2028	L	0	5	5	5	4	5	5
		(3) Housing units within walking distance of commercial services in 2028	H	1	4	5	5	1	3	2
		(4) Jobs/housing balance (by subarea)	M	0.1	3	5	4	1	4	2
		(5) Opportunities for master planning	M	0.1	3	5	3	1	3	5
	B. Efficient, Timely Growth		H	1	5.0	5.0	3.0	1.0	4.0	5.0
		(1) Total urbanized acres	L	0	5	4	4	3	4	5
		(2) Gross density for new housing in 2028	VH	10	5	5	3	1	4	5
		(3) net density for new jobs in 2028	L	0	5	5	5	5	5	5
		(4) percent of urbanized acres on parcels under 20 acres and contiguous to existing UGB	M	0.1	5	3	3	2	2	1
		(5) vacant vs. developed land included	L	0	5	4	4	2	3	5
Factor 2: Orderly and economic provision of public facilities and services										
	A. Balanced Transportation System		H	1	2.2	3.1	2.9	2.3	2.1	2.2
		(1) Total VMT per capita	VH	10	2	3	3	2	2	2
		(2) Average trip length	M	0.1	2	5	4	2	2	3
		(3) Household VMT per capita	M	0.1	4	5	3	1	2	2
		(4) Congestion	H	1	4	3	2	5	3	4
		(5) walk/bike safety and connectivity	M	0.1	4	5	3	4	3	4
		(6) System connectivity & progression of system hierarchy	M	0.1	3	4	3	3	3	4
		(7) Mode split	M	0.1	3	3	3	3	2	3
		(8) Average weekly walk trips per capita	L	0	3	3	3	3	2	3
		(9) Proximity to transit corridors	M	0.1	3	3	3	3	3	3
		(10) Percent of housing and jobs within 1/4 mile of transit	L	0	3	3	3	3	3	3
		(11) Intersection density	M	0.1	3	2	2	3	3	3
	B. Cost Effective Infrastructure		H	1	2.5	3.5	3.0	2.5	3.0	3.0
		Transportation Infrastructure								
		(1) Total cost of transportation improvements required	VH	10	1	4	3	3	4	5
		(2) Cost per acre of transportation improvements	M	0.1	2	3	3	4	3	3
		(3) New linear miles of roadway	L	0	3	4	3	2	3	3
		Sanitary Sewer Infrastructure								
		(4) Efficiency of additional sewer system improvements required	VH	10	4	3	3	2	2	1
		(5) Initial capital cost of sewer system improvements required	M	0.1	4	3	3	1	3	1
		(6) Initial capital cost of sewer system improvements per acre of development	M	0.1	3	4	3	2	2	1
		Drinking Water Infrastructure								
		(7) Water system improvements required in city water district	L	0	5	5	4	5	4	5
		(8) Capacity of Avion Water system								
		Storm Water Infrastructure								
		(9) Total impervious area for new development	L	0	4	4	3	3	3	4
		(10) Acres of new development with welded tuff geology	L	0	3	3	2	2	5	1
		(11) Acres of new development within DWPA	L	0	1	2	3	3	5	3
Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)										
	A. Quality Natural Environment (Environmental and Energy Consequences)		H	1	3.3	3.2	2.2	2.0	3.2	3.1
		(1) Development in wildlife areas	M	0.1	4	3	2	1	5	2
		(2) Linear distance of riparian areas adjacent to development	M	0.1	5	5	4	3	3	5
		(3) Wildfire hazard	H	1	3	3	2	2	3	3
		(4) Greenhouse gas emissions	L	0	3	4	3	2	2	3
		(5) Energy Use	L	0	3	3	3	3	3	3
		(6) Average Water Consumption per Household	L	0	3	4	3	2	3	3
	B. Housing Options and Affordability (Social Consequences)		H	1	5.0	5.0	2.0	4.0	3.0	2.0
		(1) Average cost of new single family housing	VH	10	5	5	2	4	3	2
		(2) Housing mix of new housing (subarea balance)	L	0	3	4	4	5	5	3
	C. Strong Diverse Economy (Economic Consequences)		H	1	4.0	4.0	4.5	4.5	5.0	4.5
		(1) site suitability for large lot industrial use	L	0	4	3	3	4	3	3
		(2) site suitability for areas identified for industrial uses	H	1	4	3	5	5	5	4
		(3) site suitability for areas identified for commercial uses	H	1	4	5	4	4	5	5
Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occu										
	A. Compatibility with Farms and Forests		H	1	3.2	3.1	2.1	3.0	2.2	3.8
		(1) Farm practices & high value farm land adjacent to expansion areas	H	1	3	3	2	3	2	4
		(2) impact to irrigation districts	M	0.1	4	3	2	3	1	3
		(3) Proximity of expansion areas to designated forest land	M	0.1	4	4	3	3	5	3
Overall					**3.6**	**4.0**	**3.0**	**2.6**	**3.2**	**3.2**

Key: H = High Importance; M = Moderate Importance; L = Low Importance; N = Excluded. ● Very Good ◡ Good ○ Fair ◠ Poor ◉ Very Poor

* Weighting for performance measures is relative to others within a single community outcome. Weighting for community outcomes is against other community outcomes. Weighting is provided as an example only and is subject to further refinement.

URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

UGB Workshop

Bend UGB Remand

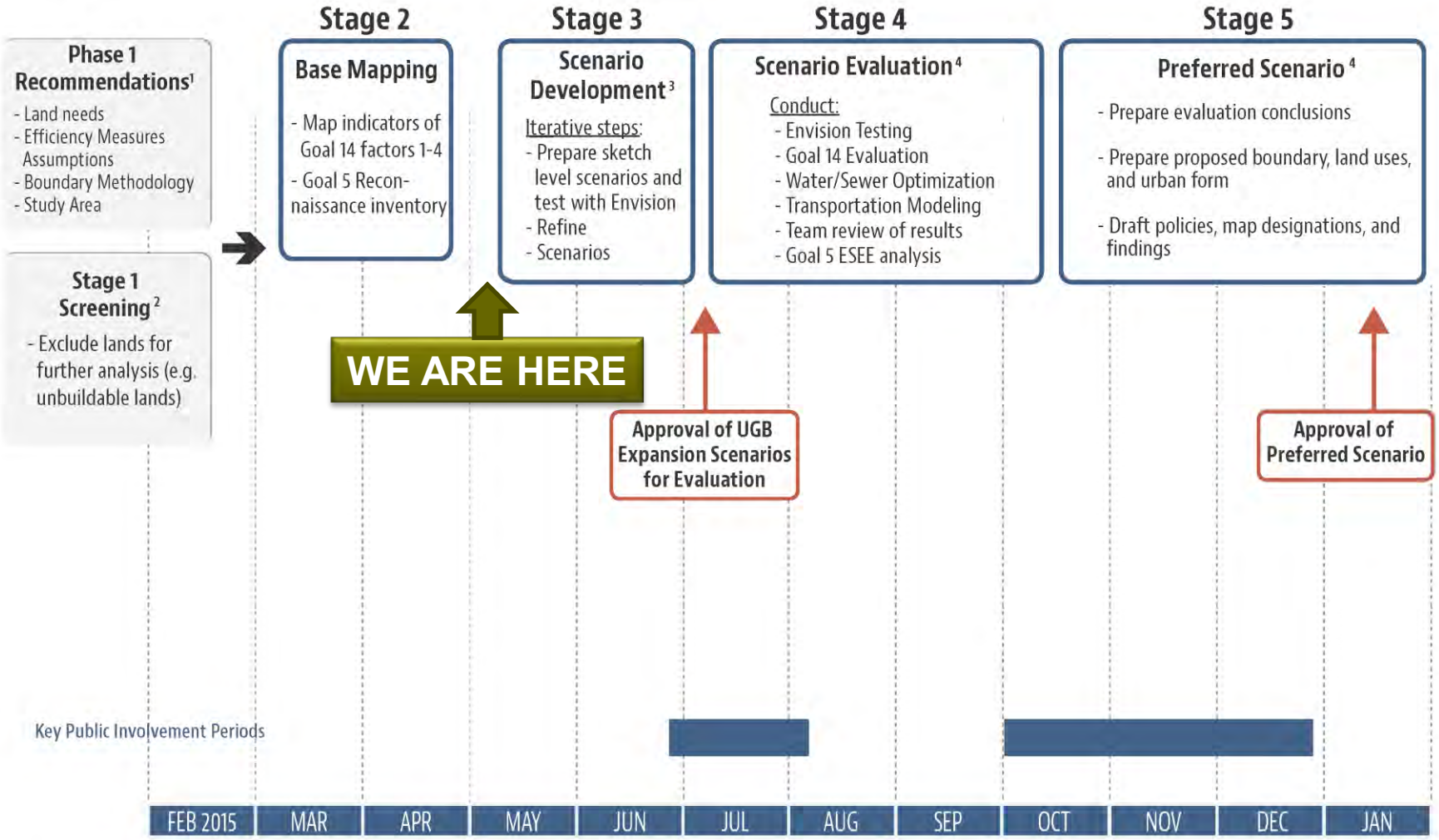
April 30, 2015

Phase 2 Milestones

rev. 3/9/2015

Preliminary and Subject to Change

URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER



Notes:

1-4: Steps per City Attorney Memorandum, Aug 19 2014: 1 = Step 1; 2 = Step 2; 3 = Step 3A Preparation; 4 = Step 3A (3B if necessary)

Additional work during Phase 2 includes: Housing Needs Analysis (HNA), Economic Opportunities Analysis (EOA), Buildable Lands Inventory (BLI)

Questions for Today

- Which direction should Bend grow?
- What land uses are appropriate in various areas?
- What are the reasons for those ideas?

Overall Theme for Today

- Concepts, not details.
- High level direction, not precision.

Guiding Light #1 – The Project Goals

URBAN GROWTH BOUNDARY REMAND

BEND

- *A Quality Natural Environment*
- *Balanced Transportation System*
- *Great Neighborhoods*
- *Strong Active Downtown*
- *Strong Diverse Economy*
- *Connections to Recreation and Nature*
- *Housing Options and Affordability*
- *Cost Effective Infrastructure*

Guiding Light #2 – The Law

- The Remand
- The four factors of Goal 14
  - ***Factor 1:*** *Efficient accommodation of land needs*
  - ***Factor 2:*** *Orderly and economic provision of public facilities and services*
  - ***Factor 3:*** *Comparative environmental, social, economic, and energy consequences (ESEE)*
  - ***Factor 4:*** *Compatibility with nearby agricultural and forest activities*

How Much Land Are We Adding?

URBAN GROWTH BOUNDARY REMAND

BEND

- ***About*** 2000 acres+/-

- Acreage depends on the *"where"* – some areas will be more/less efficient.
- Depends on the *"what"* – some land uses are more/less efficient.

How Much Land?

URBAN GROWTH BOUNDARY REMAND

BEND

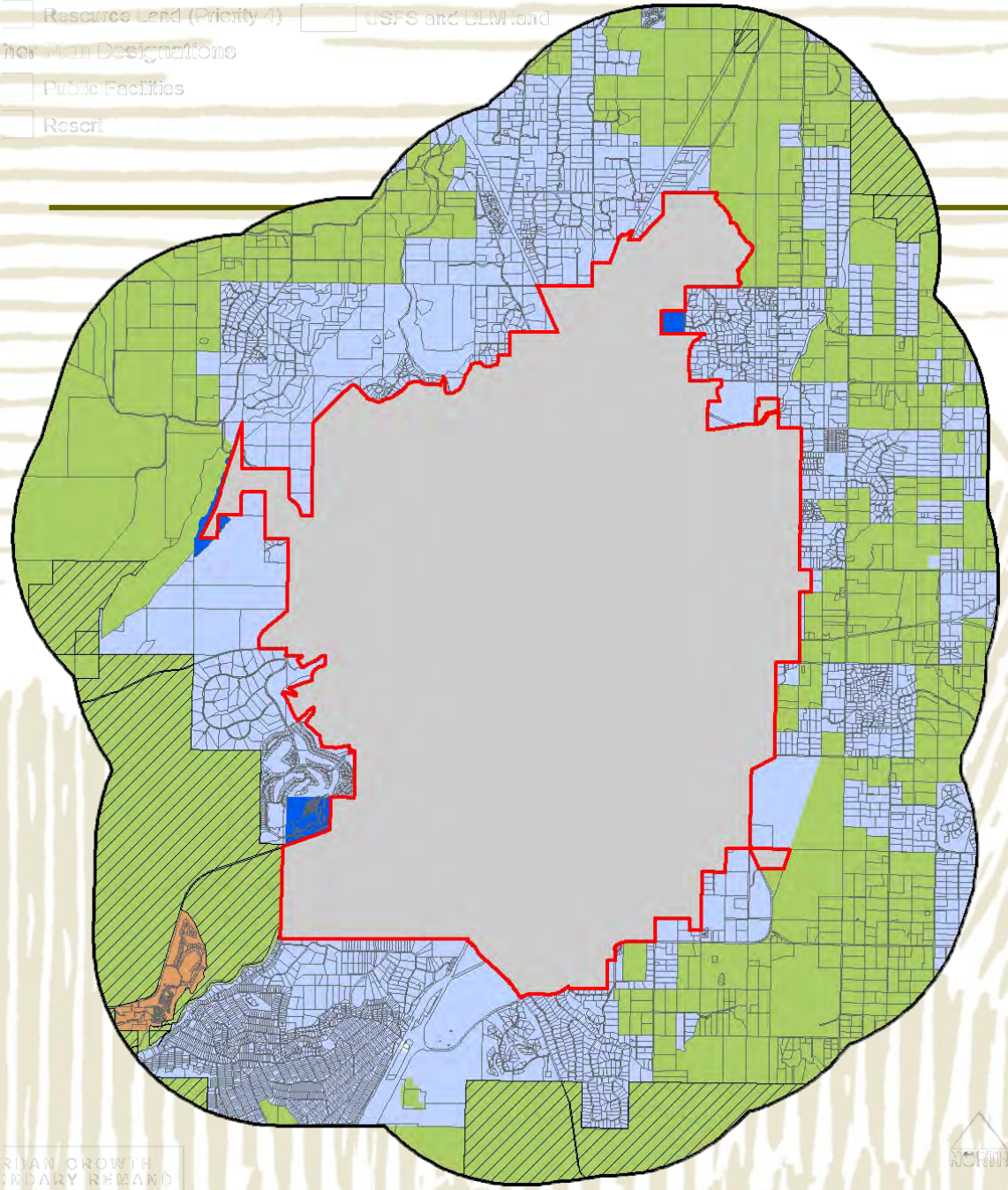
By type…

- Residential 367 to 748 acres
- Employment 528 to 657 acres
- Parks/Schools/Other 887 to 919 acres

URBAN GROWTH BOUNDARY REMAND

BEND

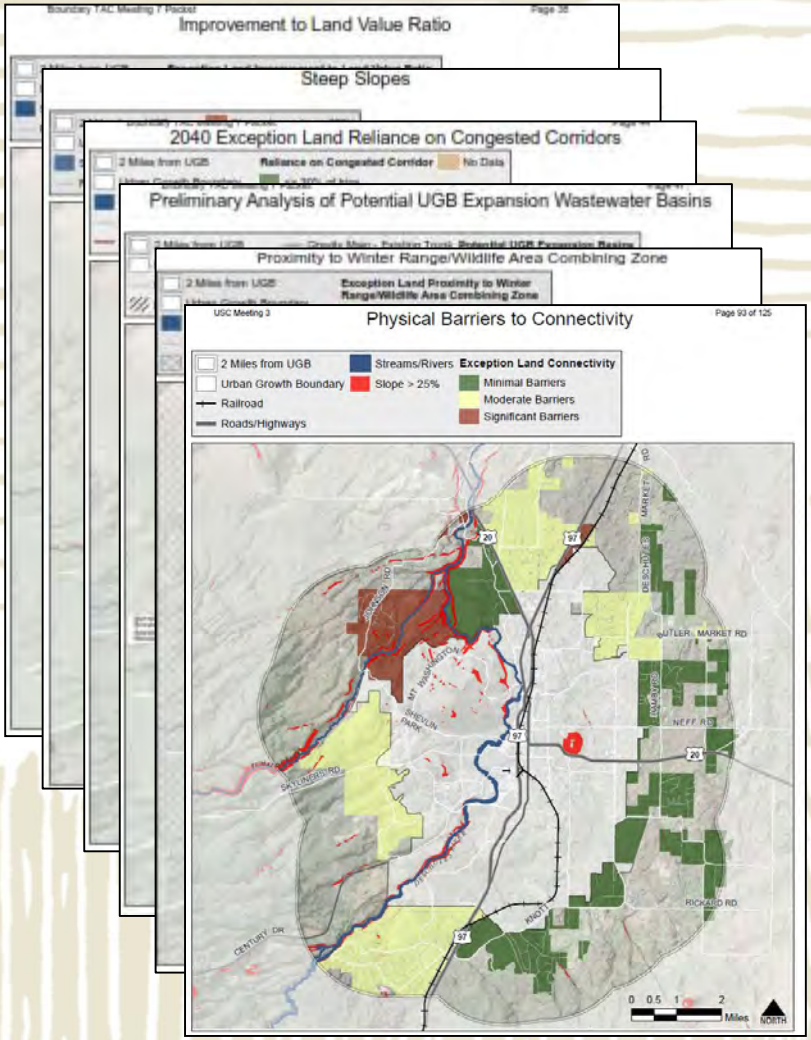
UGB Study Area by Priority Class

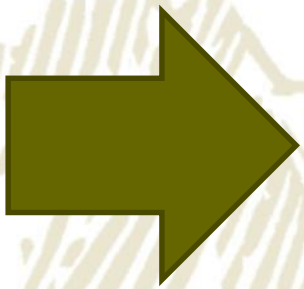


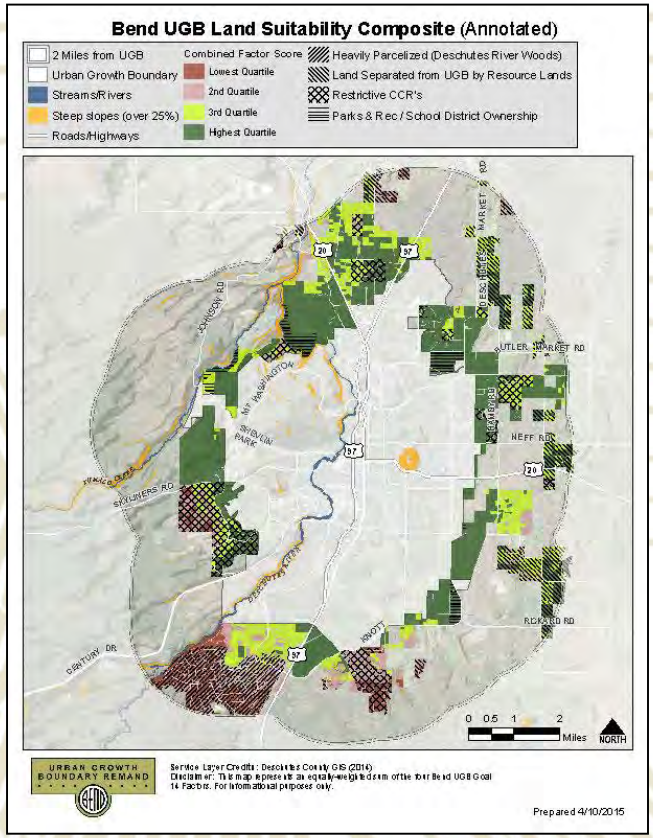
- Exception Land (Priority 2)
- Resource Land (Priority 4)
- Public Facilities
- Resort
- Urban Growth Boundary
- Proposed 2 Mile Study Area
- USFS and BLM Land

May 4, 2015

06328







Composite Map:

Neutral Weighting of Criteria & Factors

COMMENTS
BIG IDEAS

URBAN GROWTH BOUNDARY REMAND

BEND

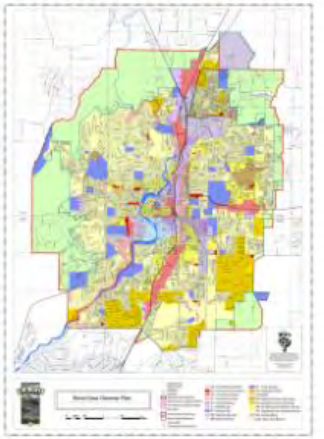
Workshop - All TACs

- Heavily Parcelized (Deschutes River Woods)
- Land Separated from UGB by Resource Lands
- Restrictive CCR's

- 2 Miles from UGB
- Urban Growth Boundary
- Opportunity Site
- Taxlot
- Parks & Rec / Open Space
- School District Ownership
- Steep Slopes (25%+)

Combined Factor Score

- Lowest Quartile
- 2nd Quartile
- 3rd Quartile
- Highest Quartile



Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of the four Bend UGB Goal 14 factors. For informational purposes only.

Prepared 4/28/2015

The How – Land Use "Chips"

URBAN GROWTH BOUNDARY REMAND

Large Lot Industrial

≈ 40 Acres

Industrial / Professional Office

≈ 40 Acres

The How – Land Use "Chips"

URBAN GROWTH BOUNDARY REMAND

BEND

Community Commercial Center

CCC CCC

≈ 20 Acres

Local / Neighborhood Commercial Center

NCC

≈ 10 Acres

The How – Land Use "Chips"

URBAN GROWTH BOUNDARY REMAND

BEND

Suburban Single Family Neighborhood

≈ 40 Acres

Traditional Neighborhood

≈ 40 Acres

The How – Land Use "Chips"

URBAN GROWTH BOUNDARY REMAND

Open Space Neighborhood

≈ 40 Acres

Large-Lot Neighborhood

≈ 40 Acres

The How – Land Use "Chips"

URBAN GROWTH BOUNDARY REMAND

Multi-Family Housing

MF

≈ 10 Acres

Community Parks & Schools

Park Park

≈ 20 Acres

School School

≈ 20 Acres

Chip	Description/Comparable General Plan Designation	Residential or Employment Density	Jobs/Housing Per Chip	Chips in Packet
	Large Lot Industrial Sites – 2 chips totaling 112 acres	n/a (special acreage need)	n/a (special acreage need)	2
	50% IL, 50% IG (Includes chips for Phase 1 designation for Juniper Ridge)	11 Jobs / Gross Acre	450 Jobs	10
	50% CG, 50% CC	10 Jobs / Gross Acre	200 Jobs (for 2 chips – 20 acres.)	8
	CL	15 Jobs / Gross Acre	150 Jobs	10
	RS designation (with efficiency measures)	4.5 DU / Gross Acre (≈6,000 SF Lots)	175 DU	10
	RS Hillside	2 DU / Gross Acre (Clustered lots to maximize green space)	85 DU	4

URBAN GROWTH BOUNDARY REMAND

BEND

Chip	Description/Comparable General Plan Designation	Residential or Employment Density	Jobs/Housing Per Chip	Chips in Packet
	70% RS, 30% RM	6 DU / Gross Acre (Mix of ≈6,000 SF and ≈4,000 SF lots)	240 DU	4
	RL	2 DU / Gross Acre (≈15,000 SF Lots)	75 DU	4
	RH	16 DU / Gross Acre	160 DU	8
	Community Park			6
	School Site			8

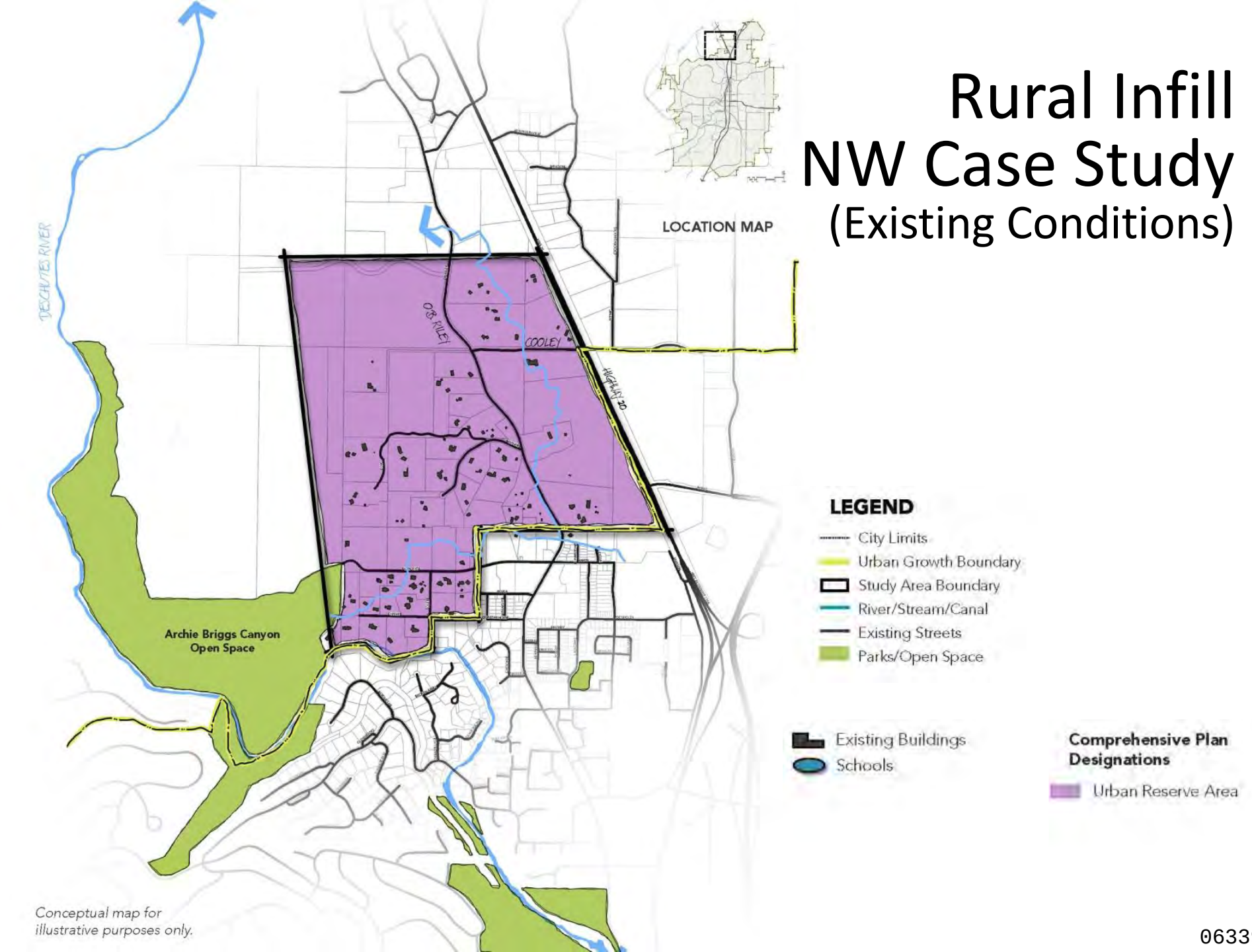
URBAN GROWTH BOUNDARY REMAND

BEND

Overall Theme for Today

- Concepts, not details.
- High level direction, not precision.

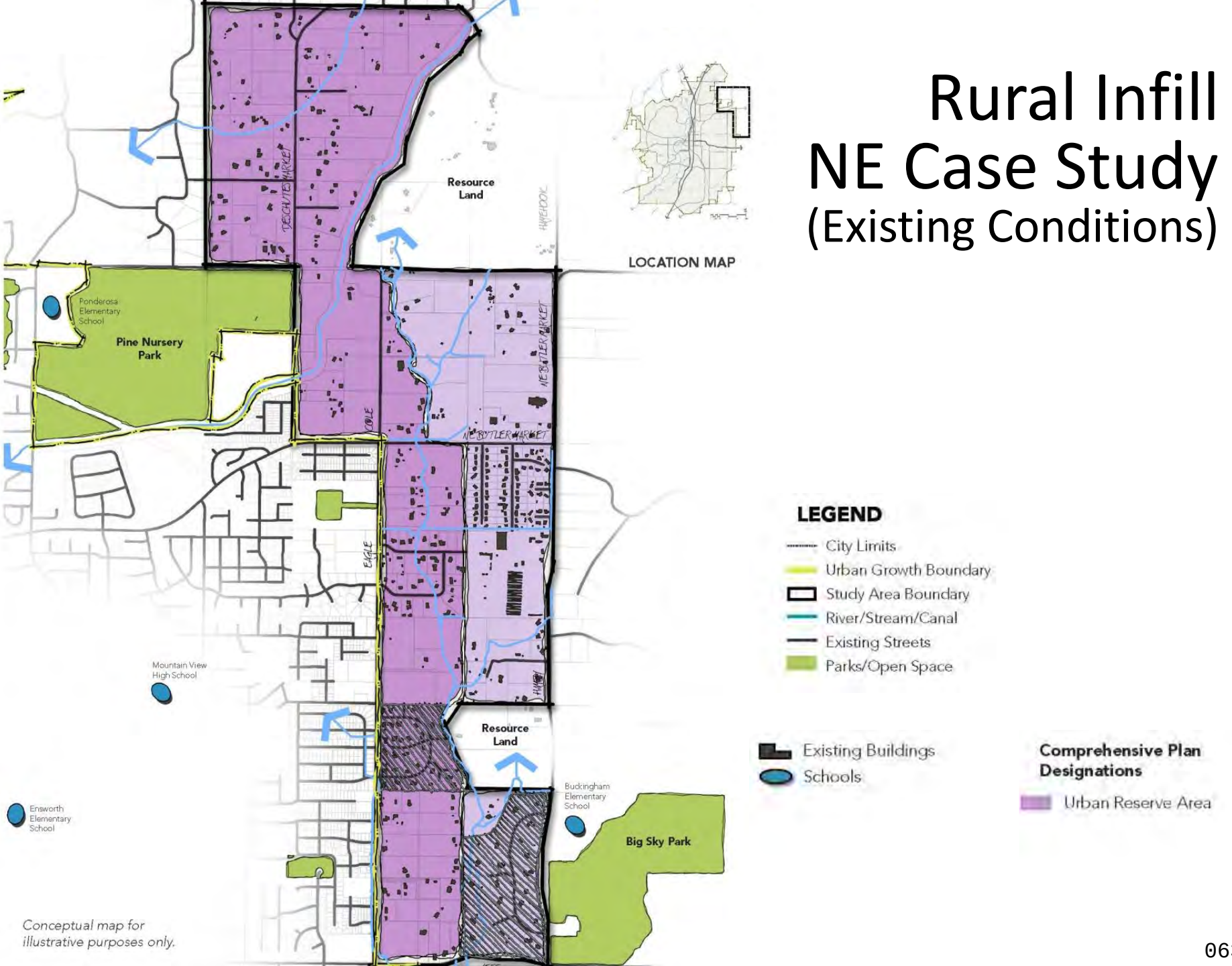
Rural Infill NW Case Study (Existing Conditions)



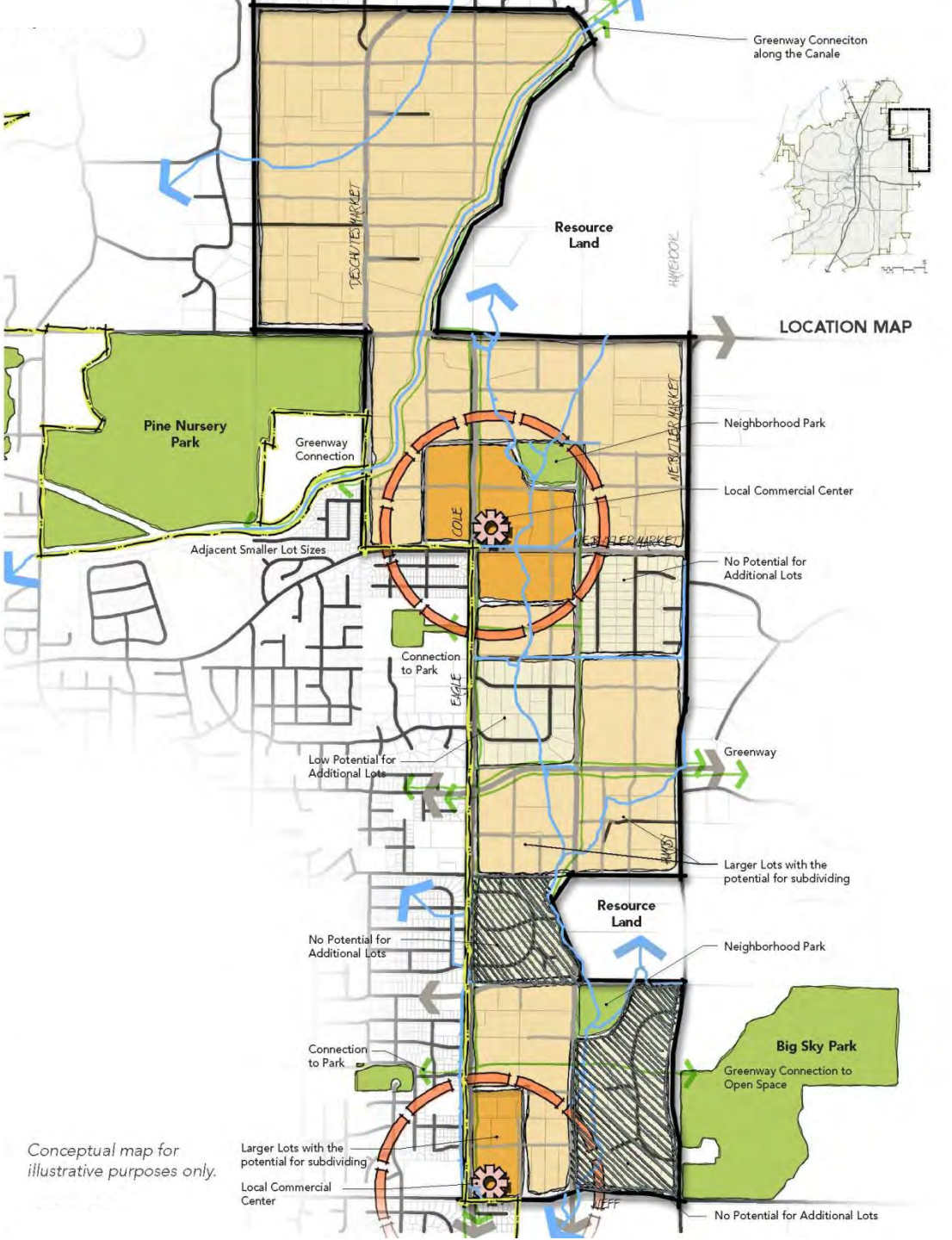
Rural Infill
NW Case Study
(Concept Map)

Conceptual map for illustrative purposes only.

Rural Infill
NE Case Study
(Existing Conditions)



Rural Infill
NE Case Study
(Concept Map)



Conceptual map for illustrative purposes only.

LEGEND

- City Limits
- Urban Growth Boundary
- Study Area Boundary
- River/Stream
- Existing Streets
- Parks/Open Space

Potential Future Neighborhood Framework

- 1/2 Mile Service Area
- Trails/Greenways
- Conceptual Streets
- Conceptual Street Network

Potential Future Neighborhood Typology

- Local Commercial Center
- Large Lot
- Single Family Suburban
- Traditional

Additional Issues

URBAN GROWTH BOUNDARY REMAND

- Juniper Ridge
- Wildfire
- Irrigation

Chip Game Mechanics

URBAN GROWTH BOUNDARY REMAND

Employment Land

≈ 40 Acres

≈ 40 Acres

≈ 20 Acres

≈ 10 Acres

Residential Land

≈ 40 Acres

≈ 40 Acres

≈ 40 Acres

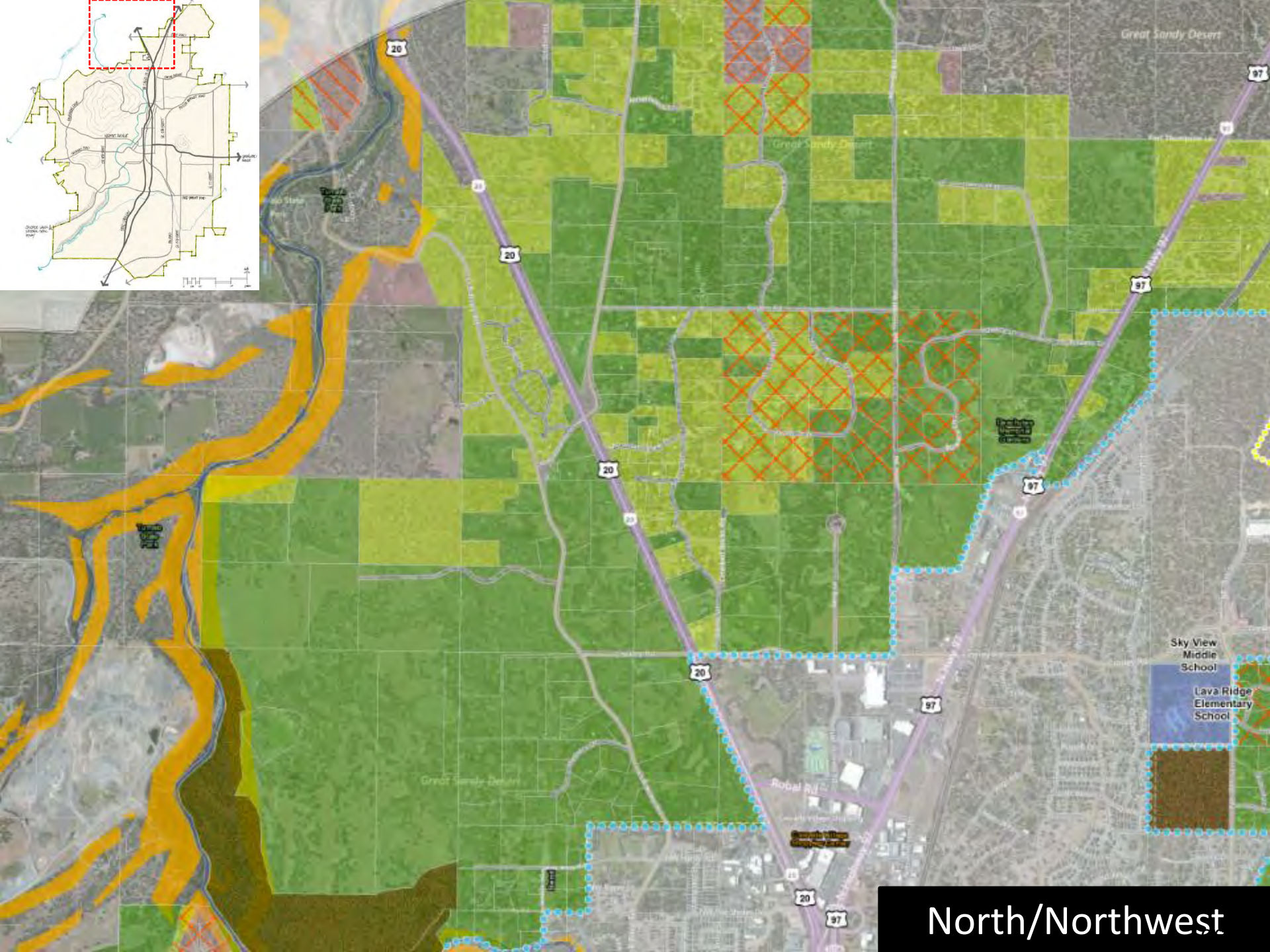
≈ 10 Acres

≈ 40 Acres

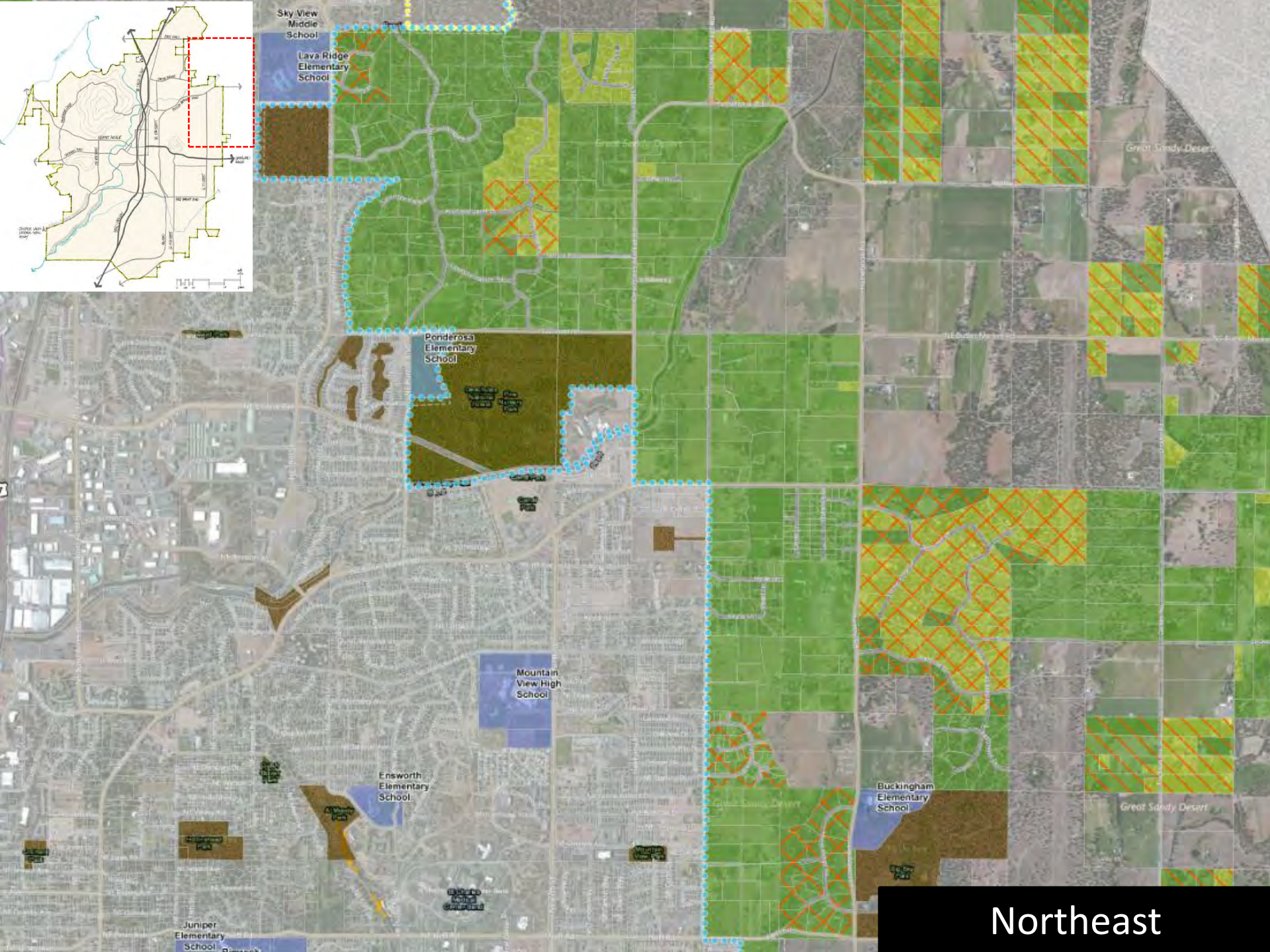
Other Land

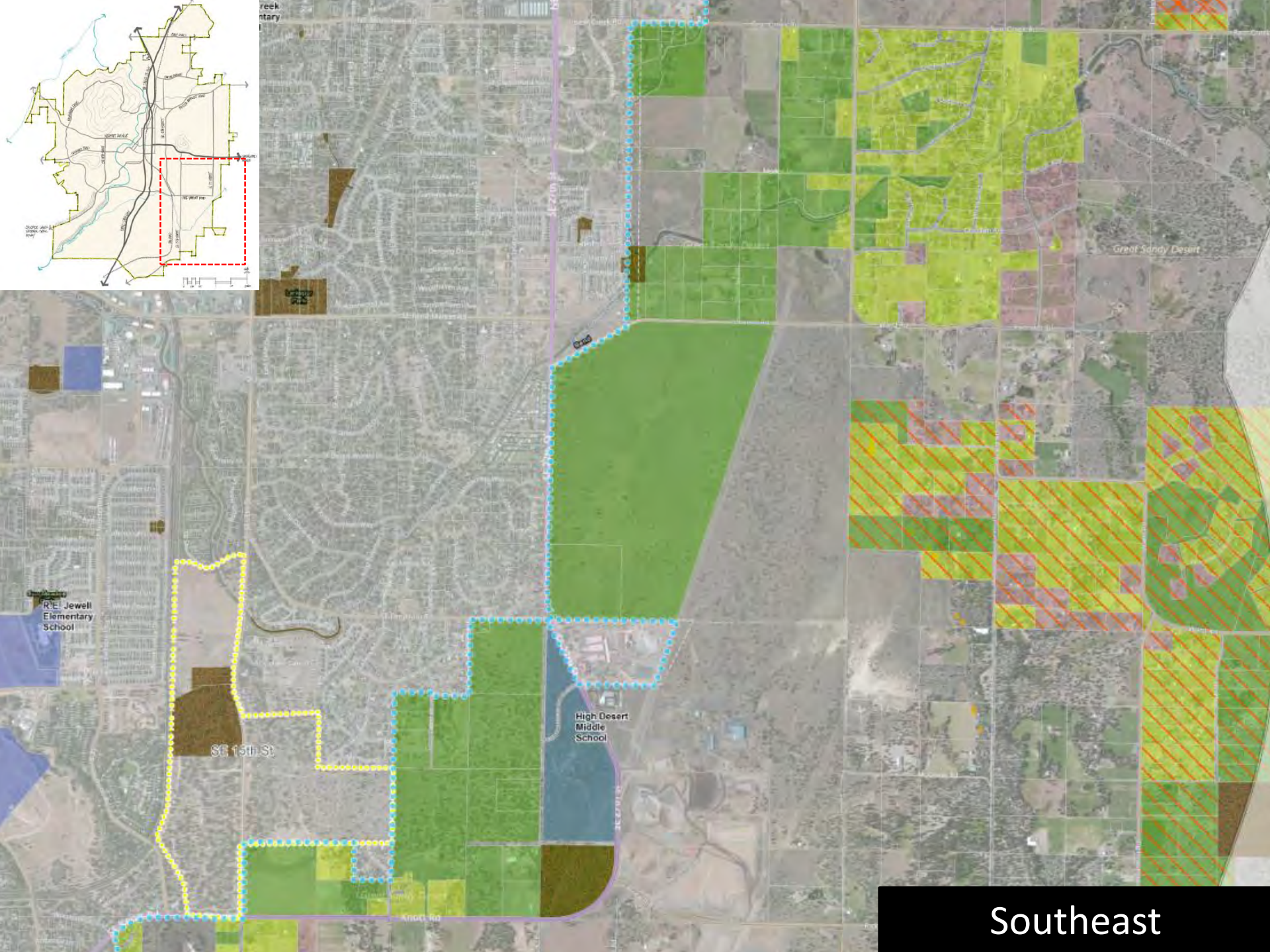
≈ 20 Acres

≈ 20 Acres

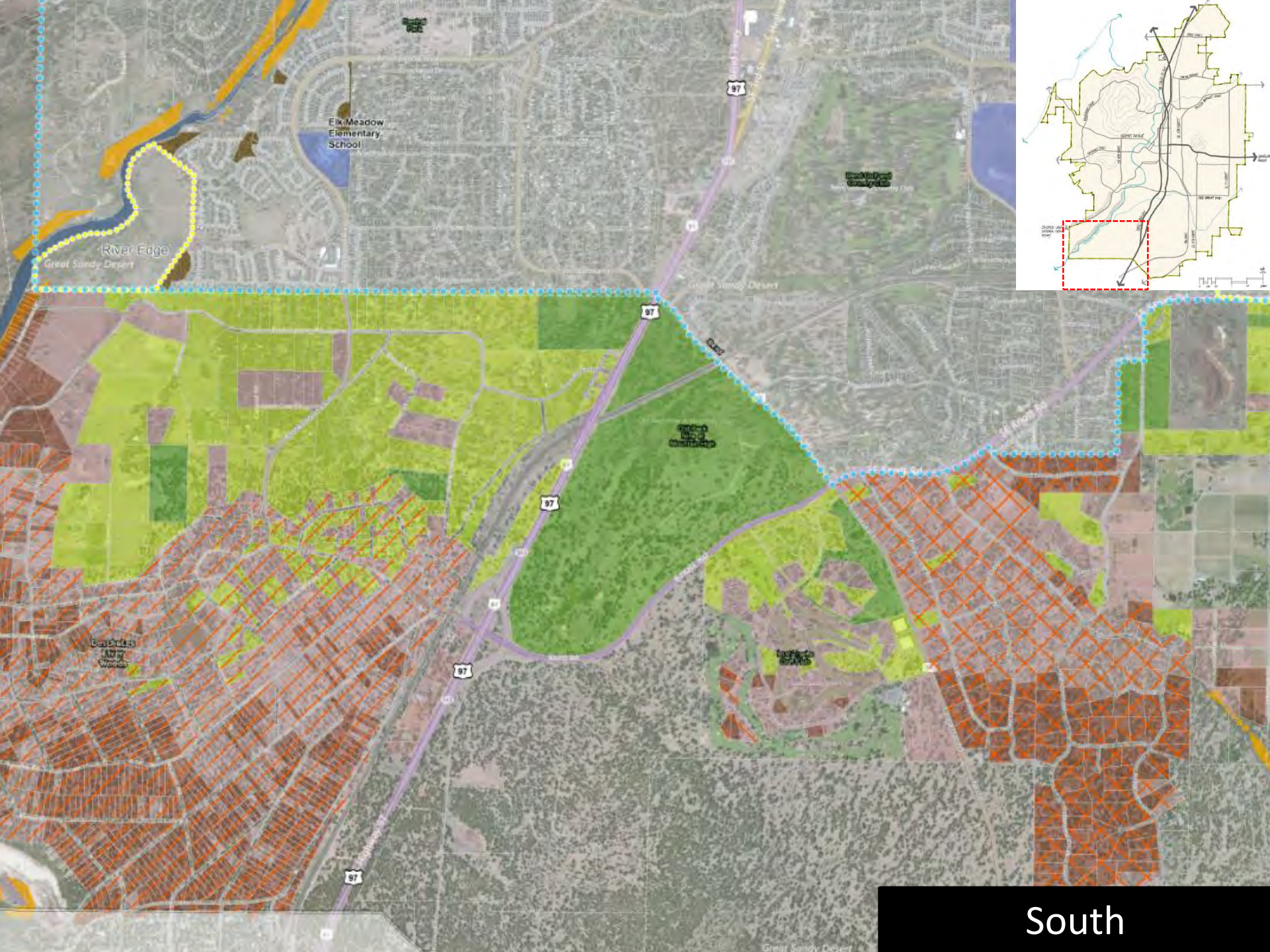


North/Northwest

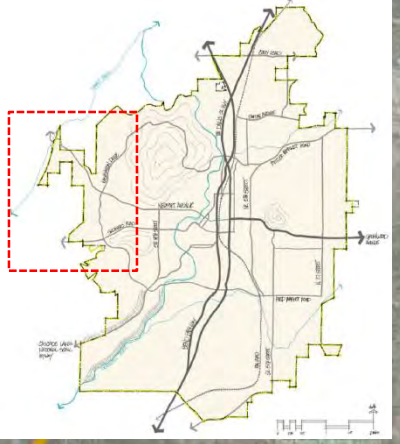

Sky View Middle School
Lava Ridge Elementary School
Ponderosa Elementary School
Mountain View High School
Ensworth Elementary School
Buckingham Elementary School
Juniper Elementary School
Great Sandy Desert
Northeast


R.E. Jewell Elementary School
SE 15th St
High Desert Middle School
Great Sandy Desert

Southeast


Elk Meadow Elementary School
River Edge
Great Sandy Desert
97

South



West

Thank you!

URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

Bend Urban Growth Boundary Expansion Scenarios Evaluation Report

Executive Summary

September 23, 2015

INTRODUCTION

The purposes of the Urban Growth Boundary (UGB) Expansion Scenarios Evaluation Report are to:

1. Summarize the results of the project team's evaluation of the UGB Expansion Scenarios and Supplemental Analysis Areas, including initial observations about which scenario and subareas appear to offer the greatest advantages relative to the performance measures analyzed;
2. Provide a factual and interpretive basis for the Boundary and Growth Scenarios Technical Advisory Committee (Boundary TAC) to use in directing the creation of a preferred scenario (which may be a hybrid of the best performing elements of several scenarios); and
3. Provide initial observations and draft recommendations about which scenario appears to offer the greatest advantages relative to the performance measures analyzed; and to suggest potential modifications that could improve its performance.

In June 2015, the Boundary TAC and the UGB Steering Committee (USC) approved three alternative UGB Expansion Scenarios for further evaluation, and directed the project team to evaluate additional land in "Supplemental Analysis Areas" in order to provide some flexibility when the proposed UGB is crafted. The UGB Expansion Scenarios and Supplemental Analysis Areas test different choices about where to accommodate future housing and employment growth outside the current UGB as a way to understand the trade-offs through the evaluation.

The Boundary TAC and USC, as well as the city's Legal Department, emphasized the importance of giving the Supplemental Analysis Areas a comparable level of analysis to the land included in UGB Expansion Scenarios. To achieve this, the team created three Supplemental Analysis Area Maps ("SAAMs") that collectively incorporate all the land in the Supplemental Analysis Areas in packages with roughly the same total levels of employment and residential growth and the same assumptions about development inside the UGB as the Expansion Scenarios. The areas tested by each of the SAAMs are listed in brief below; descriptions and maps of both the Scenarios and SAAMs are provided in the main report (the scenarios have not changed since their approval by the USC in June).

- SAAM-1: Full Shevlin Area and full Northeast Edge
- SAAM-2: Full OB Riley and Gopher Gulch Area
- SAAM-3: Full West Area

State statute and administrative rules govern how cities must evaluate potential UGB expansions. Local governments must consider and balance four factors listed in Statewide Planning Goal 14:

1. Efficient accommodation of identified land needs;
2. Orderly and economic provision of public facilities and services;
3. Comparative environmental, energy, economic and social consequences; and

4. Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.[1]

A local government must show that all the factors were considered and balanced, but state law and rules do not prescribe how or whether to weight specific factors or what should be included in the consideration of each factor. The city has an opportunity to consider and balance the factors based on community goals and priorities. The city is also obligated to base its UGB decision on substantial evidence and findings that are well documented, and to be clear about the facts, reasoning and balancing used for the decision.

ABOUT THE EVALUATION

This evaluation report uses the following terms and hierarchy of considerations in the comparison, evaluation and balancing of Bend's UGB expansion alternatives.

- **Performance Measures** – Detailed measures for each Goal 14 factor: the factual base for the evaluation. Some performance measures are quantitative and others are qualitative.
- **Community Outcomes** – Eight intended outcomes that provide a way to "roll up" performance measures, "see the forest for the trees", and state what Bend is trying to achieve with this UGB update. They mirror the applicable Project Goals that were approved by the USC in September, 2014.
- **Goal 14 Factors** – Oregon's requirements for what must be considered and balanced (see above).

The Community Outcomes **(bold type)** and a summary of the performance measures under each Goal 14 Factor are listed below.

Factor 1: Efficient accommodation of identified land needs

- **Complete Communities and Great Neighborhoods**: walkability to schools, parks, and businesses; jobs/housing balance, and opportunities for master planning
- **Efficient, Timely Growth:** total expansion, density, land contiguous to existing UGB, and vacant vs. developed land included

Factor 2: Orderly and economic provision of public facilities and services

- **Balanced Transportation System**: reliance on the automobile (vehicle miles traveled per capita or VMT, trip length, mode split, walk trips), congestion, safety and connectivity, proximity to transit, and intersection density
- **Cost Effective Infrastructure**: total cost and cost per acre of transportation and sewer improvements, new miles of local roads, water system improvements in city water service area, impervious surface area, and development in welded tuff geology and Drinking Water Protection Areas

[1] ORS 197.298, effective 1999; and OAR 660-024-0060, effective April 16, 2009.

Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)

- **Quality Natural Environment** (Environmental and Energy Consequences): development in wildlife areas, development adjacent to riparian areas, wildfire hazard, greenhouse gas emissions, energy use, and water consumption
- **Housing Options and Affordability** (Social Consequences): cost and mix of new housing
- **Strong Diverse Economy** (Economic Consequences): site suitability for commercial and industrial uses and for the large lot special site need

Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

- **Compatibility with Farms and Forests**: farm practices on high value farm land adjacent to expansion areas, impact to irrigation districts, and proximity to forest land

In Phase 1, the Boundary TAC and USC directed the team to use an "unweighted" (or, more precisely, an equally-weighted) approach to combining results from different indicators used to identify overall suitability of different areas to be considered for inclusion in potential expansion areas. For the scenario evaluation, neither the Boundary TAC nor the USC provided specific guidance on how the performance measures should be weighed and balanced against one another. To help test the sensitivity of individual performance measures on the ranking of the scenarios, the project team has analyzed the performance measures and has evaluated overall results using *both* an equally-weighted and an unequally-weighted approach, including several variations of weighting. Because some of the performance measures showed little variation among the scenarios, others capture advantages or disadvantages that are easily modified through implementation (e.g. location of a park or school), and others showed relatively significant and meaningful differences between the scenarios, the project team recommends that the "difference makers" be given greater consideration in reaching a decision on the preferred UGB. These "difference makers" include total cost of transportation and sewer improvements, residential land efficiency, affordability, and VMT. It is important to note that the update of Bend's UGB is not intended to be a numerical exercise and points-based decision. Rather, it is intended to be a determination of which choices, on balance, best meet the Goal 14 factors and Project Goals (as expressed in the Community Outcomes).

SUMMARY OF RESULTS

Based on the body of work captured in this evaluation report, in considering and balancing the four Goal 14 Factors, Scenario 2.1 performed the best of the alternatives overall, regardless of whether and to what degree weighting is applied to distinguish between the more and less important performance measures. Scenario 2.1 was in the "top tier" relative to other alternatives on nearly all community outcomes, including:

- Complete Communities and Great Neighborhoods (because it was created with the intention of providing for complete communities in all quadrants of the city);
- Efficient, Timely Growth (because of its efficient use of residential land and reliance on large, vacant parcels);

- Balanced Transportation System (because of the above advantages plus enhanced connectivity due to the extension of Murphy Road to 27th / Knott and keeping growth in the northeast focused to nodes along major east-west corridors)
- Cost-Effective Infrastructure (because of relatively low cost for both connectivity- and capacity-related transportation improvements and reasonable costs for sewer improvements);
- Quality Natural Environment (because it avoids riparian areas, limits expansion in wildlife areas, does not have any features that prevent mitigation of wildfire risk in any expansion areas, and has fairly low energy and water consumption and greenhouse gas emissions); and
- Housing Options and Affordability (because it has good housing mix in nearly all subareas and good housing affordability with significant housing growth in the southeast[2]).

The two Community Outcomes where Scenario 2.1 was not in the Top Tier were Strong Diverse Economy (because it places employment and commercial uses in some areas, such as the West Area, where they are somewhat less well suited) and Compatibility with Farms and Forests (because it has relatively more impact to Arnold Irrigation District from inclusion of full Elbow area and development adjacent to several commercial farms, including the greatest amount of development next to a feed lot south of Knott Road).

No other alternative had as strong performance on as many community outcomes, and each of the other alternatives has at least one important weakness that was identified through the evaluation:

- Scenario 1.2 performs poorly on cost-effective infrastructure, because heavy development in the Thumb triggers the need to widen Knott Road to three lanes.
- Scenario 3.1 performs poorly on compatibility with farms and forests due to heavy impacts to Swalley Irrigation District in OB Riley / Gopher Gulch and forest proximity in the Shevlin Area. It also performs relatively poorly on Quality Natural Environment because including the Shevlin Area impacts wildlife areas, puts development in proximity to Tumalo Creek, and has topography that makes wildfire hazard difficult to mitigate. Scenario 3.1 performed poorly on and Housing Options and Affordability because much of the residential development is focused on the west side of the city where land costs and housing prices are higher.
- SAAM-1 performs poorly on multiple Community Outcomes. It performs poorly on Quality Natural Environment because including the full Shevlin Area impacts wildlife areas, puts development in proximity to Tumalo Creek and has topography that makes wildfire hazard difficult to mitigate. SAAM-1 also rated relatively poorly on Complete Communities and Great Neighborhoods and Efficient, Timely Growth because the outer

[2] Housing costs for new construction were found to be roughly 30% lower in neighborhoods on the outer east side of the city relative to neighborhoods on the outer west side of the city. Housing in expansion areas is assumed to follow this trend.

extents of the Shevlin Area and Northeast Edge are not well-suited to higher-density housing and have less proximity to commercial services, schools, and/or parks.

- SAAM-2 performs poorly on Balanced Transportation System, due to the lack of connectivity to the existing UGB from the Gopher Gulch area and the distance to reach key destinations inside the current UGB. It also performs relatively poorly on Compatibility with Farms and Forests due to heavy impacts to Swalley Irrigation District and proximity to the greatest number of working farms.
- SAAM-3 performs relatively poorly on Housing Options and Affordability because all of the residential development is focused in the West Area, which is more expensive (as noted above).

The conclusion that Scenario 2.1 performed the best is only a starting point for crafting the proposed UGB update. The subarea evaluation provides a finer grain of analysis and insights into how to balance the Goal 14 factors and achieve the Community Outcomes. Additional evaluation at the subarea level shows that there is room for improvement of Scenario 2.1 through modifications to some of the subareas, as summarized in brief below.

- North Triangle: employment-focused rather than including residential
- Northeast Edge: drop the roughly 40-acre Bear Creek Road area, shifting that growth to create more complete neighborhoods around Butler Market Village and/or Neff Road, while retaining the focus on nodes along existing arterial corridors connecting to the City Center
- DSL Property: include large lot industrial site at the southern end and refine land use assumptions
- The Elbow: refine arrangement of land uses along Knott Road to minimize impacts to the adjacent farms and feed lot operations
- The Thumb: refine land use assumptions and include a high school and a community park but reduce total expansion area somewhat
- West Area: reduce the amount of commercial and industrial use in this subarea
- Shevlin: none, follow Scenario 2.1 (area excluded)
- OB Riley / Gopher Gulch: remove large lot industrial use from this area (replace with other employment uses)

Next Steps

At the Boundary TAC meeting on October 8th, the project team will present a summary of this evaluation report and the Boundary TAC will have the opportunity to discuss and understand the body of work and the project team's preliminary recommendations. On October 22nd, the Boundary TAC will reconvene to discuss the creation of a preferred scenario and provide a recommendation on this preferred scenario to the USC. The project team recommends that the Boundary TAC begin the process of creating the preferred scenario by agreeing on one of the alternatives evaluated as a starting point, and then identifying and agreeing on a list of refinements and improvements.

Memorandum

November 10, 2014

To: Technical Advisory Committees
Cc: Project Management Team
From: Matt Hastie, Angelo Planning Group
Re: BendVoice Feedback on Remand Topics

OVERVIEW

To inform Technical Advisory Committee (TAC) members with their review and recommendations, the City of Bend posted the following discussion questions on BendVoice for consideration and discussion by other community members. This memo includes a compilation of the resulting discussion.

For the original online compilation of the feedback you can visit:

http://bendvoice.org/admin/discussions/urban-growth-boundary-ugb-1/analyze

COMPILATION OF DISCUSSION

Resulting discussion is summarized by topic below.

Residential land development

Question: ***What are appropriate locations in Bend for allowing or encouraging cottage cluster housing in the future?***

Casey Davis at October 27, 2014 at 7:32am PDT

- Cottage clusters as the code currently allows in Bend seem to be destined for RS zones and would be a great addition to existing residential neighborhoods. Neighborhoods like these that emphasize smaller homes (1-2 person households), that keep cars on the periphery, fences to a minimum and share outdoor spaces are a huge step in the right direction in adding diversity in the housing sector here in Bend. They address growth with some level of density and provide smaller sized homes for singles and empty nested, Baby Boomer retirees who represent a noticeably growing demographic moving to Bend.
- As a family with a small child, I personally would like to see this idea taken a step further to allow for even more cooperative living neighborhoods (a cohousing code?) that would

enable a greater variety of sized homes to encourage a more intergenerational mix of residents. These types of neighborhoods could potentially exist in RS or RM zones and housing could range from small shared wall apartment clusters and townhomes to cottages to modest single family residences and include common buildings, common gardens and central open space. Neighborhoods like these create systems of support with their diversity of residents (the young help the old, old teach the young village-type mentality) instead of encouraging a single demographic.

- An awesome reference book for all of these types of neighborhoods is Ross Chapin's, Pocket Neighborhoods.

Wallace Corwin Wallace Corwin at October 27, 2014 at 10:29am PDT

- Site selection is limited to areas where undeveloped land for residential and commercial space is available. Most likely in the Southeast, Northeast and Western edge. This type of residential development must also include commercial services at the level needed to make this a walkable alternative. My major concern would be the density needed to support the commercial services needed.

Don Senecal at November 03, 2014 at 7:21am PST

- In light of the "in-fill" desires dictated by the state, it should also be taken into consideration that wherever clusters of housing are provided, such as cottages, apartments, etc. that particular emphasis must be made in regard to public transportation. To make this model effective and desirable, the ease of movement must be considered an extremely high priority.

Mark Whitty at November 06, 2014 at 3:21pm PST

- Every interest, every business, every remote influence keeps a nonstop parade of reasons not to expand the UGB, because, I firmly believe, each and every Bend citizen paying rent, or mortgage, property tax, or business, pays literal hundreds of dollars per month extra to live here.

- If we expand the UGB as citizens took so much time and effort to do, with unbelievable cooperation, it included the north edge, and Juniper Ridge, more than a 4 year university, it was a place to enact a world class vision, including things any ecologically minded person would vaunt. I would guide anyone caring about this giant weakness created by faking up land, rental, home, lot, costs, cost of survival, more than any other factor, to demand Bend take back its power, stop letting outside remote forces, which only rely on deterring the very same citizen plan elucidated hereabove, stop playing Bend citizens against each other, bring land costs down by intelligently implementing the existing, 2005, 2008, UGB plan.

- Please anticipate Salem and these deterrent, I believe, punishing, forces, only need for Bend citizenry to forget we are the leaders, we give up our plan, if they continually force us to start over, and our wallets are emptied yet again. Notice the 20 year buildable land

supply aspect forced by Salem UGB is already over half consumed, as proved, by the ten year delay? And the delay the iteration before? The iteration after this UGB delay?

- Cannot anyone bring up for discussion how heinous and how giving affordable housing options to a few does not adequately cover making life unlivable for the tens of thousands of others here. Example: You COULD give people money, or you could encourage community, and room rentals in citizen homes. This way two people combine and relieve each other from government financial pressure, densifying so the human being in Bend, not the bank, benefits.
- Thanks for considering this touchy issue, the breakdown of life via remote forces, honorable or intently hapless, is very serious and hurts everyone, except the remote, and large land holders, whom seek to stack, pack, sardine us into Pomona or Stockton, California punitive routines, not for Gaia but to gut end humans of their power, keeping us almost immobilized, faking a lack of room to expand and grow and have decent, normal, natural, culturally historical, home and lot sizes, and expanding the city limits according to local forces not remote wishful thinking or worse.

Employment Land Development

Question: ***What types of employment do you envision in the future in the East Downtown area and Mill District Industrial area?***

Wallace Corwin Wallace Corwin at October 27, 2014 at 10:35am PDT

- East downtown would be an excellent place for the type of development now being reviewed for Central Third Street.
  The mill district industrial area would be ripe for transition to commercial or mixed, given its location and the adjacent uses. It has great potential to add significant redevelopment employment.

Don Senecal at November 03, 2014 at 7:35am PST

- Since the logic of "expansion" and "development" looks to the path of least resistance, eyes are continually turned to the south and east within the present city limits as well as possible future considerations. But it must also be remembered that that area is also ideal for business and light industry accommodations. The area adjacent to the landfill, humane dept. and county maintenance locations offers potentials for siting other light-industrial companies. Expansion of Knott road to connect with HW 97 would also makes it an attractive location for transportation-type businesses.

Mark Whitty at November 06, 2014 at 3:28pm PST

- Why not grow upwind of the stinky things? There is no shortage of land available to build only the faked impression so heartily put in a feedback loop by the Bulletin?

- If there is logic of expansion and development, despite the manipulations of Salem regulators, which cannot conceive we are half desert, not the Valley, no interstate highway, no sprawl to densify, why would we build in the most unattractive choice like near the dump? There are many square miles that do not reek? along the UGB planned?
- Can you tell us more about the Knott-hwy97 plan,that sound very interesting?

Mark Whitty at November 06, 2014 at 3:58pm PST

- If Bend were divided along the Deschutes, north-south, the Parkway, north-south, Awbrey butte through Century Drive, there are three layers of traffic blockage, and it seems extremely contraindicated to plan, intent to grow, densify, on that side of town, and it is hard to answer directly, maybe bad browser here, no amount of zooming makes your nice looking graphic big enough to read the names.
- If, however, the USFS were to allow Bend to create a roadway that sort of encircles,has large bridge northeast of Awbrey, and meets up with Century a few miles out of town, that would change the entire balance of Bend, Oregon, so that all the desired densification and growth could happen on SW and W Bend. Though I hold not my breath, it would be wonderful to have more land opened up, uncongested, on the pine tree side of town, creating buildable land to thrive, and go to work in that vicinity, also.
- There is also this tendency to build where it profits Bend (the city) least, for example, with all the forced growth, OSU-Cascades, countless increase, the bottlenecks of waste water going over the Deschutes (and other locales along the many miles to the outside of NE Bend) make the system fail long before the nearer parts of the trunklines are enlarged- like making built in failure economic, as the capacity of existing, future, bottlenecks are hindered prematurely.
- If you consider NE Bend the "Place where no waste water trunk line work is planned, or planned last" sounds rather insane to me, as capacity is equally near capacity for many miles, and one evades all the bottlenecks if growing anywhere near (uphill) Juniper RIdge, providing costless, no pump, moving parts, handling of waste water.
- Shortest pipe, least harm, cheapest to build, doesn't crash Bend waste water capacity, the exact diametric opposite of expansion and densification on the West, NW, SW, S side.
- I invite, have waited a long time, for refutation, or at least disagreement on this issue, let me have it! (Criticism welcome!)

Determining Bend's future boundary

Questions: ***How important should the cost and challenges of providing water, sewer, stormwater and roads be when evaluating different potential expansion areas?***

How should this infrastructure factor compare to other factors such as efficient use of land; environmental, economic and social consequences; and, compatibility with nearby farm and forest land outside the UGB?

Toby Bayard at October 25, 2014 at 10:09am and at 10:36am PDT

- The challenges of providing public facilities and services (e.g. sanitery sewer services, adequate transportation, water, public transportation, etc.) should be heavily weighted when determining where to set the urban growth boundary. With respect to transportation, it is widely acknowledged that some quadrants to the city are more constrained than others. The area around Cooley Rd. and US97's north corridor is one example as are Galveston and Newport and their western extensions (Skyliner Rd. and Shevlin Park Rd). Principles of orderly and efficient urbanization suggest that less congested quadrants such as the east portions of Bend, which are first in line to get sewer expansion (as a result of the 27th St. Interceptor) and which have a more robust transportation grid network should be considered before the more congested areas in the north and northwest.

- I meant to continue, but posted too soon ... economic, social, environmental and energy (ESEE) considerations are clearly linked to the issue of orderly and efficient urbanization. Certainly, these considerations suggest that a dense urban core is best. Fewer miles of roads and sewer pipes are not only less costly for tax payers, but sprawl is detrimental in other ways, too. From a social standpoint, a city that is largely composed of suburbs and exurbs lacks social cohesiveness, and longer commutes take time away from family. Neighborhoods are the heart and soul of a vibrant city and a reasonable amount of density in the urban core makes it possible to provide cost-effective public transportation, and multi-modal options such as cycling, walking,the use of scooters, etc. In addition to complete reliance on the automobile. In summary, there is a strong link between keeping the cost of infrastructure and public services low by picking the most efficient quadrants for expansion and placing value on ESEE factors. I am not a proponent of urbanizing farm land. Some may say that we don't have farm land in Deschutes County yet 16% of the County's economic base is agricultural. If the climate in Central Oregon becomes warmer and wetter as many climatologists suggest, this region may be well adapted to growing crops that have previously required cost-prohibitive agricultural practices.

Don Senecal at November 03, 2014 at 7:29am PST

- The most current proposed expansion of the UGB boundaries was, in my opinion, as close to ideal as possible. There are always tweaks and squeezes that need to take place, but essentially, the expansion addressed most of Mr. Bayard's concerns. I also believe that, since this process is as challenging as it has turned out to be in the past and will prove to be again in the future, that a provisional, future UGB be considered as part of the over-all strategy of expansion. It is generally acknowledged that eventually, the city limits will expand to the edges of those areas where national and state agencies

will prohibit further movement. By recognizing those limits at this time, we will be better prepared to address the challenges of the future.

L B at November 03, 2014 at 10:32am PST

- In answer to the topic question, of course the cost of infrastructure is important. The city should be efficient in its use of taxpayer money.

Mark Whitty at November 06, 2014 at 3:43pm PST

- This topic reads a little like "Should we plan?" and worse, all this work was done, the farm-residential proximities, the decisions, why dismiss the extant plan? We are waiting for Salem to approve it, after a 100 page put down, right? Hopefully Bend did not get tricked into starting all over again (I do not know, fear the worst).
- It is a very important subject. The way the question or issue is framed, one is largely disabled from responding in kind. The nebulizing via mixing the words "cost and challenges" causes the issue to be pre-monetized, for example. We do not look towards avoiding or embracing challenges, we carry out the citizens accumulated, City branded as OK, plan, else we just dog paddle until Salem throws us a bone.
- I agree with LB cost is everything. Cost is how you control things, and monitor them. In the case of Bend, Oregon, if logic truly applied, we would grow nearer the wastewater treatment plant, as so much cost is attendant to the pipes, while pressurized water is available all round, underground, surface, etc. There is no other choice than carrying out the citizens plan which was dismissed apparently. It included all factors this topic cites and dozens more,
- How important should the cost and challenges of providing water, sewer, stormwater and roads be when evaluating different potential expansion areas?
- If it is outside the UGB, why are you mixing the UAR issues into this, it seems to unnecessarily muddy the UGB issue. (I remember this being a pitfall in years past, and welcome your reply)
- In one way I sure do agree with the stated concern- but in all relevant aspects, carrying out the UGB plan, specifically, north and northeast Bend, had every aspect positive, and not one negative that I can find.. So why not carry out that very UGB plan, expand? Trust me, there is no stopping the flood of influences trying to counter the local citizens good, hard, city endorsed and forwarded, work, roughly the UGB alternative 4 2008.
- It is sad to see so many have given up trying to wrest control of own wallet away from the possibly purposeful hampering of Bend life, faking a lack of buildable land, forcing ONLY 20 year inventory, FORCING ten years of delay (SO FAR) while life continues to become ever more affordable for the lions share of Bend-ites.
- Look forward to your reply, understanding what the current situation is, you seem very knowledgeable.

Mark Whitty at November 06, 2014 at 3:47pm PST

- The lions share of Bend-ties experience life becoming UN livable financially, mostly owing to a faked lack of land. Hundreds more per month per person renting or invested in Bend. (If land prices halved, all costs except materials drop like a rock, being predominant)

Marshall Greene at November 06, 2014 at 8:41pm PST

- Costs of infrastructure development is, in my mind, a relatively low priority in considering the UGB. Issues of livability, environmental impact, and public health should outweigh cost considerations. Expanding the UGB has costs to the city -- I don't think anyone would dispute that. And while it may be possible to pass a majority of these costs on to developers (instead of taxpayers and / or current property owners), expanding the UGB has hidden costs to residents' quality of life. For instance, expanding the UGB further east encourages greater reliance on personal automobile use, increasing air pollution, creating greater congestion in downtown areas, and forcing more land to be devoted to parking. Furthermore, low density sprawl reduces social connections. As an example how often have you introduced yourself or even said hello to a stranger while driving in a car. Infill development where walking and biking are possible encourage just those types of social interactions that build communities and social capital. And, if future generations are at all important in these conversations, Millenials get this. That is why so many of them are choosing to forgo car ownership, are choosing to live in high density, mixed use area, want to use public transit or ride their bikes.
- The state rejected the previous UGB plan for a reason. The city of Bend (as well as many of its residents) need to accept that Bend is no longer a tiny, backwater town where we can all live on 2 acre lots in the forest. Density is not the enemy. Instead we must plan for aggressive infill development, zone areas for mixed use that encourages alternative transport, and build UP not OUT.

Meeting Agenda

Urban Growth Boundary Technical Advisory Committee – Meeting 10
Wednesday, June 24, 2015 9:00 AM – 12:00 PM
Municipal Court Room – Bend Police Department
555 NE 15th Street
PLEASE NOTE THE 9 AM START TIME AND THE LOCATION

Meeting Purpose and What is Needed from the TAC

The purpose of this meeting is to:

- Discuss and direct UGB expansion scenarios:
  - Discuss the documentation for lands being screened from further evaluation
  - Define an approach that will keep flexibility to evaluate a larger pool of land
  - Identify refinements as needed and approve a slate of alternatives for consideration by the UGB Steering Committee on June 25th

The specific discussion recommendations, i.e. the feedback we would like from the TAC, are listed in the packet materials.

1. Welcome and Introductory Items — 9:00 AM

a. Convene and welcome — Co-chairs
b. Approval of minutes (Meeting 9 – page 4 of packet)
c. Where we are in the process – a brief look back and look forward — Joe Dills, Brian Rankin

2. Documentation for Lands Being Screened — 9:10 AM

Briefing, TAC Discussion and Action

a. Briefing – Legal foundation, Phase 1 Screening and further refinements (pages 17-23 of packet) — Mary Dorman, APG
b. TAC discussion – working from the memo
c. Action: discussion and action on the recommendation (page 23 of packet)

For additional project information, visit the project website at http://bend.or.us or contact Brian Rankin, City of Bend, at brankin@bendoregon.gov or 541-388-5584

Accessible Meeting/Alternate Format Notification
This meeting/event location is accessible. Sign and other language interpreter service, assistive listening devices, materials in alternate format such as Braille, large print, electronic formats, language translations or any other accommodations are available upon advance request at no cost. Please contact the City Recorder no later than 24 hours in advance of the meeting at rchristie@ci.bend.or.us, or fax 385-6676. Providing at least 2 days notice prior to the event will help ensure availability.

3. Maintaining Flexibility: Approach to Further Analysis — 9:45 AM

Briefing, TAC Discussion and Action

a. Briefing – Approach to scenario evaluations and use of "Supplemental Analysis Area" (pages 23-27 of the packet) — Becky Hewitt, APG
b. TAC discussion – working from the memo and through to the recommendation
c. Action: discussion and action on the recommendation (page 28 of packet)

4. Scenario Refinements — 10:15 AM

Briefing, TAC Discussion and Action

a. Briefing – Revised draft scenarios – please see memo (pages 28-38 of packet) — Andrew Parish, APG
b. TAC discussion – working from the memo and through to the recommendations
c. Public comment — Chair moderates
d. Action: discussion and action on the recommendations (page 39 of packet). The purpose of this action item is to identify refinements for each scenario. (Note: the TAC may choose to revisit actions from items 2 or 3 on the agenda if necessary based on refinements to the scenarios.)

   As a way to think about refinements, TAC members may wish to propose:

   - Spatial changes that would refine a mapped area
   - Use changes that would refine the intended uses for an area
   - Evaluation notes: not a specific change, but rather an item that should be addressed during the evaluation process this summer.

5. Project Information, Next Steps — 11:55 PM

Brian Rankin

Joe Dills

a. Project information

b. Next meeting – October 2015 (tentative date: October 8)

c. Other upcoming meetings and outreach activities (preliminary)

- June 25 – UGB Steering Committee
- July 21 – Residential and Employment TACs
- August 25 – Residential and Employment TACs
- September (tentative date: Sept 23) – MetroQuest on-line survey launch
- Late September – Community meeting
- Briefings and presentations for community groups – on-going

6. Adjourn — 12:00 PM

City of Bend
Boundary & Growth Scenarios Technical Advisory Committee
Meeting Notes
Date June 9, 2015

The Boundary & Growth Scenarios TAC held its regular meeting at 9:00 am on Tuesday, June 9, 2015 in the Bend Municipal Court Hearing Room located at 555 NE 15th Street.

Roll Call (TAC members present)

☐ Susan Brody	☐ Steve Hultberg	☐ Ron Ross
☐ Jim Bryant	☐ Tom Kemper	☐ John Russell
☐ Paul Dewey	☐ Nick Lelack	☐ Sharon Smith
☐ John Dotson	☐ Brian Meece	☐ Gary Timm
☐ Rockland Dunn	☐ Charlie Miller	☐ Rod Tomcho
☐ Scott Edelman	☐ Wes Price	☐ Dale Van Valkenburg
☐ Ellen Grover	☐ Mike Riley	☐ Robin Vora
	☐	☐ Ruth Williamson

1. Welcome and Introductory Items

a. Convene and Welcome. Sharon called the meeting to order at 9:05 am.

b. Approval of Minutes 5/7/2015. Sharon asked if there were any changes to the Boundary TAC minutes of the 5/7/2015 meeting. Robin Vora recommended several changes that are identified below:

i. Mary Winters sent out a note on minority opinion. He requested this be added to the minutes. He also requested more detail in the meeting minutes.
ii. Regarding the text of the meeting minutes, on page 3 of the minutes (See page 6 of 84 of the 6/9/15 meeting packet), Robin requested that the minutes reflect why those who opposed a motion did so. He mentioned that he voted against the motion identified on the top of page 6 of 84 because wildfire should be an important consideration in UGB expansion. In addition, Ellen and Gary concurred. Several TAC members, including John, Rod, and Sharon noted that they supported the motion because they agreed wildfire was an important consideration but disagreed with those opposed on the methodology used to address it.
iii. Regarding the text of the meeting minutes, on page 3 (See Page 6 of 84), Robin also noted that on the second vote related to "1. Staying with an Unweighted Approach," he voted no because he thought other packages were more important in the UGB analysis.
iv. Regarding the text of the meeting minutes on page 3 (See Page 6 of 84), Robin noted that he voted no on "2. Use the Annotated Land Suitability Composite (Figure 6) as the basis for narrowing the pool of lands to be considered for UGB expansion," he voted No

on this motion because voting for all scores masked scores he considered more important than others.

Joe asked whether the TAC approved of these changes, and noted that there was a nod of heads. Susan moved approval of the 5/7/15 meeting minutes as amended; Ellen seconded the motion. The motion passed without any no votes; Paul abstained because he did not attend this meeting.

c. Where are we in the process – a brief look back and look forward.

Joe then gave a brief report on where we are in the process. The next meeting of the UGB Steering Committee (USC) is coming up on 6/25/2015.

Steve Hultberg asked a question regarding the properties that rated dark green (high) but were not included in any of the scenarios. The question he raised was how the City could eliminate properties from further consideration based on Goal 14 considerations. On what basis do we eliminate properties based on Goal 14, and make those findings. Joe responded by stating we're using Goal 14 and the Project Goals to evaluate properties. During the narrowing process, no findings have been prepared yet to explain why properties were not included in any of the boundaries. He also point out that there are only so many acres to go around with the land need.

Mary Dorman referred to the Stage 2 mapping and explained that we can make findings why resource lands are not included. The lands mapped "green" include about 6,000 acres, working from the inside out we need to identify 2,000 acres of land to meet the need. The criteria used so far include complete neighborhoods.

The committee then began a deeper discussion of how to go about separating the lands within the scenarios from the highest rated lands that were not included in the scenarios. Steve cited to the relevant administrative rules – OAR 660-024-0060(5). The discussion touched on the following topics:

- Using Goal 14 to conduct a cost analysis of the scenarios
- For those areas included on one of the scenario maps, look at topography, proximity, document things going forward and how the decision making process was done
- Applying Goal 14 to the various scenarios, selecting some number of scenarios to which you can then apply the Goal 14 factors
- Setting up the evaluation process to recognize that if an area is too expensive that there are other lands to which the City can turn for including in the boundary
- Considering whether a property owner is advocating to be brought in the boundary or be left out of the boundary
- Don't minimize what happened at the workshop- three TACs participated in the workshop; note in the findings. Connect the dots.

- Explain how the six maps created at the workshop led to the creation of the three maps
- Consider a margin – for modeling, include more than 2,000 acres.

Joe and city staff addressed some of these issues by pointing out that the team is working closely with city engineering staff and the consultant team on water and sewer modeling. Within this work there is a margin of additional area within the realm of their work. He also clarified that we are looking for three scenarios to take forward.

To close the discussion, Joe recommend considering the scenarios as a starting point, and clarified that we can set up the analysis to look at lands adjacent to the scenarios, and keep some flexibility to consider those as expansion areas and work on documentation and reasons for the Goal 14 analysis. Joe asked the TAC for confirmation as to whether he adequately summarized the discussion on this topic. The discussion that followed requested clarification that under Goal 14, the city needs to evaluate suitable lands and then use this process to eliminate those not needed; and if how should all suitable lands be considered. This work also needs to look at the suitability maps and document the work done at the workshop tables.

Sharon brought the discussion to a close by considering several options; schedule another meeting and look at some additional work product. Another option is to have the work done and Mike and Sharon could work with staff to come up with a new map to disseminate to everybody. This next meeting is important. Sharon further suggested taking the three scenarios and the composite map, identifying those adjacent properties and pockets close to properties shown on scenarios. TAC discussion asked for clarification that for the UGB Steering Committee Meeting (USC), we need to explain why we're eliminating dark green lands for further consideration, document the rationale used at the workshop, document why some dark green areas were not included, and articulate why we made those choices. Make people aware of how this work was done; they can make a case for the UGB including their property to the council. Consider size of parcels but don't eliminate parcels that are not larger and undeveloped; consider whether a group of parcels might be included.

Joe wrapped up the discussion on this point by summarizing that the committee wants some flexibility, we're heading toward an extra meeting for TAC discussion, making a composite map of all scenarios, look at areas that area adjacent to the scenario lands that may add land for analysis, and document why some dark green areas were included and others were not. He finished by stating the city and consultant teams will meet during a break to look at next steps.

e. Irrigation District Comments (taken out of order)

Steve Shropshire, an attorney representing the Swalley Irrigation District (SID), gave a short power point presentation on the concerns of SID. He referred to a June 1, 2015 letter from SID Manager Suzanne Butterfield in the meeting packet. The district is interested in coordinating as best as possible as a unit of local government. The presentation is enclosed with these minutes, and is summarized here. The district includes roughly 12,000 acres. What happens close to town (e.g. development) can affect the distribution of water further out in the system.

SID uses a hub and spoke system to deliver water to patrons. The Districts biggest concerns are in coordination, financial and operational impacts and impacts on the delivery system going north from Bend. He also provided several comments on the draft scenarios. Scenario 3 could have the biggest impact, there are more small parcelized areas in this scenario. Scenario 1 is more ideal; much easier for larger more sophisticated commercial developers to work with the district. Smaller amount of Swalley acreage in this scenario. His final thought for the TAC was Scenario 1 would affect revenue to the district by 1% per year; Scenario 3 would affect review by 10% per year.

After his presentation, Robin asked what happens to water rights for those areas brought into the UGB. Over time as development occurs water rights come off the land. Swalley ID has a water bank to which water rights can go. SID has put 39 CFS (cubic feet/second) into the river.

d. TAC Protocols for minority reports

Mary Winters referred the TAC to a memo she wrote that was included in their meeting packet. There were two (2) topics addressed: 1. Meetings and email communications, and; 2. Minority Reports. One of the goals of forming a TAC is to make decisions through consensus. If there are smaller groups of TAC members that have a different view on a topic, they can present their views to the City Council as individuals. If a small group forms a minority on a vote and then forms a subcommittee to formalize a minority opinion, any meetings of this group would constitute a public meeting under Oregon's public meeting law; the minority group represents an advisory committee making a recommendation to the governing body.

After Mary gave her presentation, Paul commented that this direction is overkill, and is offered too late in the process. He disagreed with the memo. He disagreed that those TAC members who vote in the minority on a topic are not interested in reaching consensus; the process has moved at a pace that did not, in his view, provide opportunities to work through compromises. He objected to the proposed recommendation on what number of TAC members would constitute a minority and further disagreed with staff writing up the minority opinion.

The TAC discussion that followed Mary's and Paul's comments addressed a number of issues:

- It's important to keep the discussion in TAC meetings, at the table
- What constitutes a quorum? A majority of the committee.
- Number that would constitute a minority – 4 or 5? Could 1 be a minority?
- At the March USC meeting, the minority gave a presentation that's length exceeded that of the report the majority gave
- Should the presentation to the USC address why the majority voted the way they did and why the minority voted the way they did?
- One person constitutes a dissenting opinion

After this discussion, Joe brought the discussion to close. He confirmed that the TAC was generally comfortable with the protocol about where substantive discussions should occur,

confirming that positions would be stated openly at a Boundary TAC meeting and not done in email afterwards.

f. Public Comment

1. Sid Snyder. Sid identified himself as a member of the Residential TAC and a citizen. He mentioned Community involvement and the goals of the City of Bend. He read Mary Winter's memo eight (8) times and was confused. Regarding the memo's presentation on public meetings law, he said that not being able to talk with anyone else on the TAC was stifling. It makes it difficult for people in the community to participate on these TACs. He signed up to serve the public; not the City Council or staff. There has not been enough time to get an understanding of issues and we've got to talk with other people. Regarding the minority report piece, at the TAC orientation he heard consensus. The report talks about compromise. He will organize these thoughts into written testimony.

2. Myles Conway. Myles represents Rio Lobo (property owner). Rio Lobo investments owns 374 acres south of Shevlin Park and zoned UAR10. This is priority 2 land. This land burned in the Awbrey Hall Fire. While it was ranked in the highest quartile, much of it was excluded from the expansion scenario. He argued that there was no basis to do so due to the chip exercise. He applauded the decision to do further work on the scenarios and recommended looking at all of the highest quartile land. He argued for the need for some additional Goal 14 factor study; the Phase 2 maps make minor distinctions that are somewhat arbitrary.

3. Ed Elkins. Ed identified himself as the owner of the Gopher Gulch Ranch. He stated he was confused that there's not more documentation on the process. It's important for this group – we need to have documentation on how decisions were made to avoid lawsuits. The documentation needs to include showing all state regulations were followed. He questioned how properties were ranted and recommended documenting decision on how statutory requirements are being met.

2. Wildfire
Briefing and TAC Discussion and Action

Karen Swirsky gave a report on the work completed on addressing wildfire in the UGB remand. She mentioned that the City brought the Community Wildfire Protection Plan (CWPP) to a prior meeting. She outlined the recommendations in the TAC's wildfire memo included in the meeting packet (See packet pages 13-. These recommendations are reproduced below for reference:

- ***Recommendation to TAC:*** *Use the CWPP, as illustrated by the Fire Risk Index Map, as the basis for determining wildfire risk. Proceed to onsite assessments, as described below.*

❖ ***Recommendation to TAC:*** *Assess wildfire risk on land within the UGB Scenarios*
using the SB360 Risk Assessment. Utilize willing members of the Focus Group or trained staff for the site assessments. Assess adjacent land if deemed necessary. Use the results of the on-site risk assessments for (1) determining suitability for inclusion in the UGB under Goal 14 Factor 3, and (2) determining appropriate mitigation for lands that are selected to be included in the UGB.

❖ ***Recommendation to TAC:*** *Form a Task Force to review Firewise recommendations as outlined in NFPA Standards 1141 and 1144, as well as programs adopted in other communities, and make recommendations to the City regarding mitigation measures appropriate for adoption as policy and codification.*

Paul made several comments at the beginning of the TAC discussion. He disagreed with the first recommendation with the Fire Risk Index Map; it's useful, but Ed Keith (County Forester) came up with a large fire history map. The risk is in the ponderosa pine forest. Paul recommended using this map. He also disagreed with the premise that fire risk is high everywhere; the northeast is not the same as the west and the southwest. Regarding mitigation, he rejected the premise that catastrophic wildfire can be addressed through mitigation measures.

The TAC discussion that followed Karen's presentation and Paul's comment addressed mitigation measures, the risk of wind driven catastrophic fires, and avoiding those areas before going to mitigation. Sharon questioned Ed Keith's map and commented that it's not a risk analysis tool. It displays a history of fires and does not represent a risk analysis. Paul commented that large fires should be part of the analysis.

Joe asked Craig Letz the question of whether large fires are part of the risk analysis. Craig commented that fire history is not included in the composite – it's more a note on the history of fire. He cautioned against using fire history as a predictor of fires in the future. Joe questioned whether there was a way to combine both sets of information. Craig commented that due to recent fire history – the risk of future fire is lessened due to catastrophic fires. Karen added that a group of experts agreed with the fire index map.

The TAC discussion that followed involved a number of comments on this topic:

- The intensity of fire and risk to structures, Goal 14, mitigation and tradeoffs
- The wildland urban interface (WUI) already comes to the city; condition is already there
- Firewise standards should be used.
- Risk, as defined in the CWPP considered characteristics of land that might be more subject to catastrophic wildfire. Lands with these characteristics are found in the forested zone, and suggests that this would be more susceptible to catastrophic wildfires.
- Disagreement with position that higher fire risk should equal a lower score. Risk is already there.

- Take into account what the Forest Service is already doing through the Deschutes Collaborative Project – fire suppression efforts.
- Public agencies are not devoting adequate resources to thinning; only a small percentage of what needs to be thinned is being thinned.
- Disagreement with position that urbanization can help with mitigation.
- Firewise standards should apply to all construction in Bend.

Following the TAC discussion two people signed up to provide public comments on this topic:

1. Joe Emerson. Joe commented that the principle of high fire risk around the UGB is not a good one. He cited the Two Bulls fire as an example of a fire that is very different from a grass fire. He mentioned mitigation efforts along Highway 97, that grasses and mixed reeds have a lower risk of catastrophic wildfire and that the intensity of the heat is different based on the type of wildfire. He suggested that any on ground assessments represent recommendations for setting the boundary or input on setting a boundary.

After Joe Emerson gave his comments Craig Letz followed up with a few comments: the on-ground assessments will represent information to guide the decision on the boundary. He confirmed for the discussion that the fire risk in the future is not based on fire risk in the past.

2. Robin Vora. Robin referred the TAC to the fire history map developed by County Forester Ed Keith. He briefly summarized the fire history map, and pointed out that there were not large fires in the area east of bend north of Rickard Road and Highway 20 east. He commented that this area did not include enough fuels to carry a fire east of town. Areas between Powell Butte, Bend, and Redmond have a lower fire risk. There is also a cost element of these fires; there are not fire SDC's (system development charges) paid for more fire support. He mentioned that there is an added cost which represents a socialized risk and privatized profit. The articles he provided in his written materials to the TAC show that expanding perimeter is one of the biggest factors of paying the costs of wildfire. National fire-fighting budgets are limited.

Before turning to the recommendations in the wildfire memo, Ellen posed a question of whether there is a special use or need for less dense development on the west side for a buffer? Nick commented that he appreciated the city bringing forward wildfire mitigation codification. The UGB process is now the start of an urban reserve; we can get the framework into codes now in this process.

Joe then turned to the recommendations in the packet (See pages 14 and 15 and cited above).

First motion:

❖ ***Recommendation to TAC:*** *Use the CWPP, as illustrated by the Fire Risk Index Map, as the basis for determining wildfire risk. Proceed to onsite assessments, as described below*

Susan proposed a modification to the wording. She recommended adding "in conjunction with onsite assessments" and striking "as the basis for determining wildfire risk." Use the CWPP, as illustrated by the Fire Risk Index and in conjunction with onsite assessments. Susan further amended the proposed motion to add a reference to the Fire History Map.

Motion: Use the CWPP, as illustrated by the Fire Risk Index Map and the Fire History map, in conjunction with onsite assessments. Proceed to onsite assessments as described below.

Susan moved approval of the motion, Mike provided a second to the motion. All members voted in favor. There were no votes in opposition or in abstention.

Second motion. Joe then presented the second motion regarding wildfire.

❖ ***Recommendation to TAC:*** *Assess wildfire risk on land within the UGB Scenarios using the SB360 Risk Assessment. Utilize willing members of the Focus Group or trained staff for the site assessments. Assess adjacent land within a quarter mile-if deemed necessary. Use the results of the on-site risk assessments for (1) determining suitability for inclusion in the UGB under Goal 14 Factor 3, and (2) determining appropriate mitigation for lands that are selected to be included in the UGB and (3) qualitative mitigation recommendations and cost analysis*

The discussion for this motion included incorporating costs, assessing adjacent land unless irrigated pasture or rock. Karen noted that if adjacent lands are managed by the Forest Service they will already have a fire plan in place. One question was raised of whether "adjacent" should include spotting distance of a fire? Craig commented that is tough to do. He recommended looking at a quarter mile beyond the proposed boundary expansion. The TAC concurred with using one-quarter mile in the motion as modified below:

❖ ***Recommendation to TAC:*** *Assess wildfire risk on land within the UGB Scenarios using the SB360 Risk Assessment. Utilize willing members of the Focus Group or trained staff for the site assessments. Assess adjacent land within a quarter mile ~~if deemed necessary~~. Use the results of the on-site risk assessments for (1) determining suitability for inclusion in the UGB under Goal 14 Factor 3, and (2) determining appropriate mitigation for lands that are selected to be included in the UGB and (3) qualitative mitigation recommendations and cost analysis*

Tom moved approval of the motion as amended; Ellen provided a second. Motion passed with all TAC members voting for the motion except Ron. His vote was the lone no vote. There were no abstentions. Ron commented that he though this recommendation would take too much work.

Third Motion.

❖ ***Recommendation to TAC:*** *Form a Focus Group to review Firewise recommendations as outlined in NFPA Standards 1141 and 1144, as well as programs adopted in other communities, and make recommendations to the City regarding mitigation measures appropriate for adoption as policy and codification.*

Discussion – Joe confirmed that staff would form the task force if approved.

Dale moved approval of the motion; Wes provided a second. All TAC members voted in favor of the motion. There were not votes in opposition or in abstention.

4. Draft UGB Expansion Scenarios

Joe began on this topic by starting a process discussion. During the break, the team met with City Councilor Victor Chudowsky who directed the team to hold the 6/25/2015 meeting date for the USC. The goal of a next meeting is to forward a slate of scenarios to the USC. The TAC discussed possible meeting dates of June 22, June 23, and June 24 for a Boundary TAC meeting in advance of the June 25 USC Meeting. The TAC agreed to meeting on June 24, 2015, from 9:00 am to 12:00 pm to develop recommendations for the USC for their June 25, 2015 meeting. Joe confirmed that the materials that would be sent to the Boundary TAC would also be sent to the USC.

Following the discussion of the meeting date, Andrew Parrish of APG gave a power point presentation that provided more background into the work that went into developing the three scenarios. This presentation is enclosed as an attachment to these minutes. Following the presentation, the TAC discussion and questions included:

- Considering the location of the opportunity areas considered by the other TACs, especially those near areas adjacent to the UGB
- Scenario 1 map – more land needed for schools and parks, next to Miller Elementary
- Clarify – is there a formula for number of new dwellings in an areas that would necessitate a new school?
- Northeast area – Juniper Ridge – is this a peninsula? Should some of it come out of the UGB? Need to do something up there to create some mass? Bigger block of land in the northeast
- Park land near Shevlin Park

Public Comments on this topic.

1. Wayne Purcell – Wayne commented that a pine tree fire needs to be fought from the air. He commented that more land from the northeast was not included in the scenarios. We need more affordable housing; the areas to the northeast is an area that could help meet this need. He thought the scenarios involved too many large parcels with single owners – too many "eggs

in one basket." Small lots can be put together with adjacent property. Provide land for the little developers. The areas to the northeast are closer to Mountain View High School. Lots of flat land in this areas and closer to the sewer plant.

2. Tia Lewis (provided letter for the record). Representing Eric and Robin Coats who own approximately 700 acres. The property is located near Tumalo Creek and Deschutes River, and includes an identified mining site. Proposed this land for including in the UGB. Provides possible trail connection and transportation route off the west side – opportunity to reroute to the north and to the east. Goal 14 criteria are not listed; need to put land on the map to study. To eliminate first priority land you need evidence to support its elimination. Put first priority (Priority 2) lands back on the map – explain what factors and evidence it's based on. Written testimony proposed what to study from their lands.

3. Steve Jorgensen, representing Bend Metro Parks and Recreation District (BMPRD). Commented that the TAC should look for opportunities for trails; referred to the 1995 Trails Plan. He identified a potential trail near the Coats' Property and that the west side of the river was very important from the District's perspective. Scenario map #2 includes land in "the Elbow" and abuts park land at Knott and 27th Street. This land is identified as the High Desert Park site. District requests that this property be included in the UGB so it can be traded for other lands that are better suited or needed for a park.

4. Tim Elliott, representing Anderson Ranch. This property is included in Scenarios 1 and 2. He commented on the Goal 14 analysis and that he attended every meeting during the last UGB process. Land priority issue a primary issue on remand. Consider the first priority lands first.

TAC Discussion following public testimony. After the APG presentation of the scenarios and the public comment on the scenarios, Joe asked the TAC for their comments, in particular what the team should carry away for further work. Individual comments were:

- Look at areas that aren't already served with commercial development (e.g. Scenario #2)
- Look at property identified in Hopp testimony; zoning wrong on the Hopp map. Part of it is UAR10 and right on Highway 20.
- Look more carefully at northeast properties adjoining the UGB – see testimony on Butler Market Village
- Examine what areas might be too fragmented
- No sense to include residential in North Triangle area. Better fit for employment in this area. Lots of eggs in the southeast basket. Look at areas in the east and northeast.
- TAC should see more than one scenario. Development to the west involves tradeoff between density and fire issue. Look at more complete communities on west side – such as cluster with complete community features with buffers.
- Letter from Curt Baney – property near "the Thumb" – fits in the same sub area. Consider including for study purposes. Special side needs for large lot industrial – public ownership capable of holding properties for long time.

- TAC does not have an adequate range of alternatives to consider. Need a broader city perspective – there's a long list of concerns on the west side including: wildfire, mule deer habitat, forest lands, conservation of biological diversity, carbon, Tumalo Creek, water rights, and added traffic on streets. No way to mitigate all this. Affordable housing also a concern.
- Consider a variation on Scenario 2 – 2a that takes what's proposed on the west side and locates this on the east side.
- Consider a variation on Scenario 2 – 2b – that takes what's proposed on the west side and puts it near the Thumb. Consider a variation of this alternative (2b) (1) – that does this and takes in all of Deschutes River Woods. Don't includes those areas north of Deschutes River Woods in the Buck Canyon Area that were identified by the Oregon Department of Fish and Wildlife (ODFW) as habitat.
- Consider more residential development in the Thumb
- Call attention to the idea of affordable housing on the east side. Consider whole neighborhoods and more diverse communities on the east.
- Consider a scenario that moves the development proposed on the west side to the east and northeast
- East side of Juniper Ridge (aka JR) is not zoned now. Unlikely that $50 million can be funded for infrastructure to serve it. Leaving 200 acres on the table that won't develop in the next 10 years. Consider for either employment or residential. Leave it in the city; take it out of the UGB.
- Property on either side of the Thumb and Baney, property north of Section 11 (DSL) should be considered. Consider diversity of housing types, including in the northeast edge. Sacrifice some density on the west side for fire. Consider a little more around the current perimeter – don't put all the eggs in one basket.
- Proposed land need of 2,000 acres woefully inadequate. Not enough land. Underestimating our need by overestimating what could happen with density in the UGB. Consider SR2.5 south of Juniper Ridge – need to connect to Juniper Ridge or it becomes a peninsula. Need to bring the block of SR2.5 into the UGB. Consider ADU's (accessory dwelling units), maybe future density; reallocate ½ of Juniper Ridge.
- Look at the Thumb. How do we look at Deschutes River Woods? Consider for next rounds of conversations? Pay attention to circumstances in Deschutes River Woods.
- Consider wide variety of housing and employment lands

At the end of this discussion, Rod asked if the TAC would be asked to answer those question shown on page 47 of the TAC packet, which are reproduced below:

QUESTIONS FOR THE TAC

1. Are there any changes the TAC wishes to propose to Expansion Scenario 1?
2. Are there any changes the TAC wishes to propose to Expansion Scenario 2?
3. Are there any changes the TAC wishes to propose to Expansion Scenario 3?
4. Are there any different scenarios a TAC member wishes to propose?
5. Motion: forward the slate of scenarios, as revised, to the USC.

The above questions can include comments, such as specific items to include in the evaluation.

Joe commented the team would not seek motions from the TAC right now. There will be no voting at this meeting. The team will take the TAC's feedback and prepare a revised set of scenarios for voting at the next meeting.

Sharon adjourned the meeting at 1:03pm.

Action Items/Next Steps

Action	Assigned To
Wildfire: ✓ Wildfire risk assessment tools ✓ Wildfire risk assessment methodology ✓ Wildfire Mitigation strategies	 Done Done Done
Scenarios	City and APG team: take TAC input and come back with revised set of scenarios

Memorandum

June 22, 2015

To:	Urban Growth Boundary and Growth Scenarios Technical Advisory Committee
Cc:	Urban Growth Boundary Steering Committee
From:	Angelo Planning Group Team
Re:	Revised Draft Urban Growth Boundary Expansion Scenarios and Recommendations

INTRODUCTION

Purpose

The purpose of this memorandum is to:

- Present updated Urban Growth Boundary (UGB) expansion scenarios
- Respond to requests from the Urban Growth Boundary and Growth Scenarios Technical Advisory Committee (Boundary TAC) for additional information, justification of lands, and flexibility for crafting the proposed UGB after evaluations are completed this summer
- Outline an approach to the analysis of potential expansion areas

The goal for this meeting is for the Boundary TAC to forward recommendations to UGB Steering Committee (USC), who will meet on June 25th.

Direction from the Boundary TAC

At the June 9th meeting (Boundary TAC 9), the Boundary TAC discussed the draft scenarios, raised important questions, and provided initial feedback on refinements to the scenarios. While the Boundary TAC did not vote, it did provide direction to the team, as captured in the meeting minutes. The following summarizes the direction provided to the team.

1. **Documentation for lands being screened from the evaluation** - Provide clearer documentation, consistent with OAR 660-024-060, for why certain lands are not being forwarded for further analysis, in particular areas rated as “dark green” on the composite Stage 2 map.[1]

[1] Figure 1 identifies in dark green the highest-ranked quartile of exception land based on an un-weighted composite of the indicators for all Goal 14 factors that were evaluated in Phase 1. The term “dark green” is used throughout this memo as a short-hand for these highest quartile of exception lands in the study area.

2. **Flexibility** - Define an approach that will keep flexibility to consider a larger pool of land if the Boundary TAC or USC deems that necessary (e.g. some of the land included in scenarios turns out not to perform well in the scenario analysis).
3. **Scenario refinements** - Refine the three expansion scenarios presented at the meeting, considering Boundary TAC comments. Note: the Boundary TAC commented on several requests from the public, so consideration of public testimony is included in the updates presented in this memo.

This memo is structured to respond to each of the Boundary TAC's requests. It should be noted that all "documentation" and consistency with legal requirements is preliminary and subject to change. It is not intended, or required, that legal findings be made at this point. Much more detailed findings will be created at a later point in the process, and will address applicable legal standards. The focus at this stage of the process is to clearly state the basis and reasons for the recommendations, which sets the foundation for findings to be prepared at a later date.

DOCUMENTATION FOR LANDS BEING SCREENED FROM THE EVALUATION

Legal Foundation and Phase 1 Work

The Goal 14 administrative rule (660-024-0060) sets the framework for the boundary location alternatives analysis (see Appendix A for full text of this rule). In Phase 1 of the project, the Boundary TAC agreed on how to interpret and operationalize the requirements of this rule to ultimately conduct a comparison between lands to include in the UGB expansion. In short, the Boundary TAC defined an approach to evaluate lands surrounding Bend for their relative strengths and weaknesses according to State laws pertaining to UGB expansions. Why is this important? Ideally, the UGB expansion should take place on the "best" land available after considering and balancing multiple factors.

The alternatives analysis is only considering land in the same priority category in ORS 197.298 (exception lands). The Stage 2 maps approved by the Boundary TAC at the end of Phase 1 work do a good job of capturing the relative strengths and weaknesses of priority exception lands within a 2-mile radius of the existing UGB based on key indicators of the four factors of Goal 14.

- **Factor 1**: Efficient accommodation of identified land needs – consideration of parcel size, proximity to the UGB, improvement to land value, steep slopes and subdivisions with known CC&Rs.
- **Factor 2**: Orderly & economic public facilities – for transportation, consideration of physical barriers to connectivity, reliance on congested corridors and connectivity to

complete roadway grid; for sewer, analysis of potential UGB expansion wastewater basins.[2]

- **Factor 3**: Environmental, social, economic and energy (ESEE) consequences – consideration of significant Goal 5 resources and overall resource priorities from Greenprint.
- **Factor 4**: Compatibility with activities on nearby resource lands – consideration of proximity to zoned forest land and high-value agricultural land.

The Boundary TAC reviewed and approved roughly 25 Stage 2 maps related to different indicators of the Goal 14 factors. The project team then prepared one composite map for each of the four Goal 14 factors and a composite map combining indicators for all four factors. The approach was to prepare "un-weighted" composite maps, so the information was displayed without value judgments about what factors are more important than others. This approach is consistent with applicable state rules as well as case law on the subject.

With input from the Boundary TAC, the universe of exception lands was narrowed from about 18,000 to about 6,400 acres of top-quartile "good" lands at the end of Phase 2. The narrowing process included the following steps:

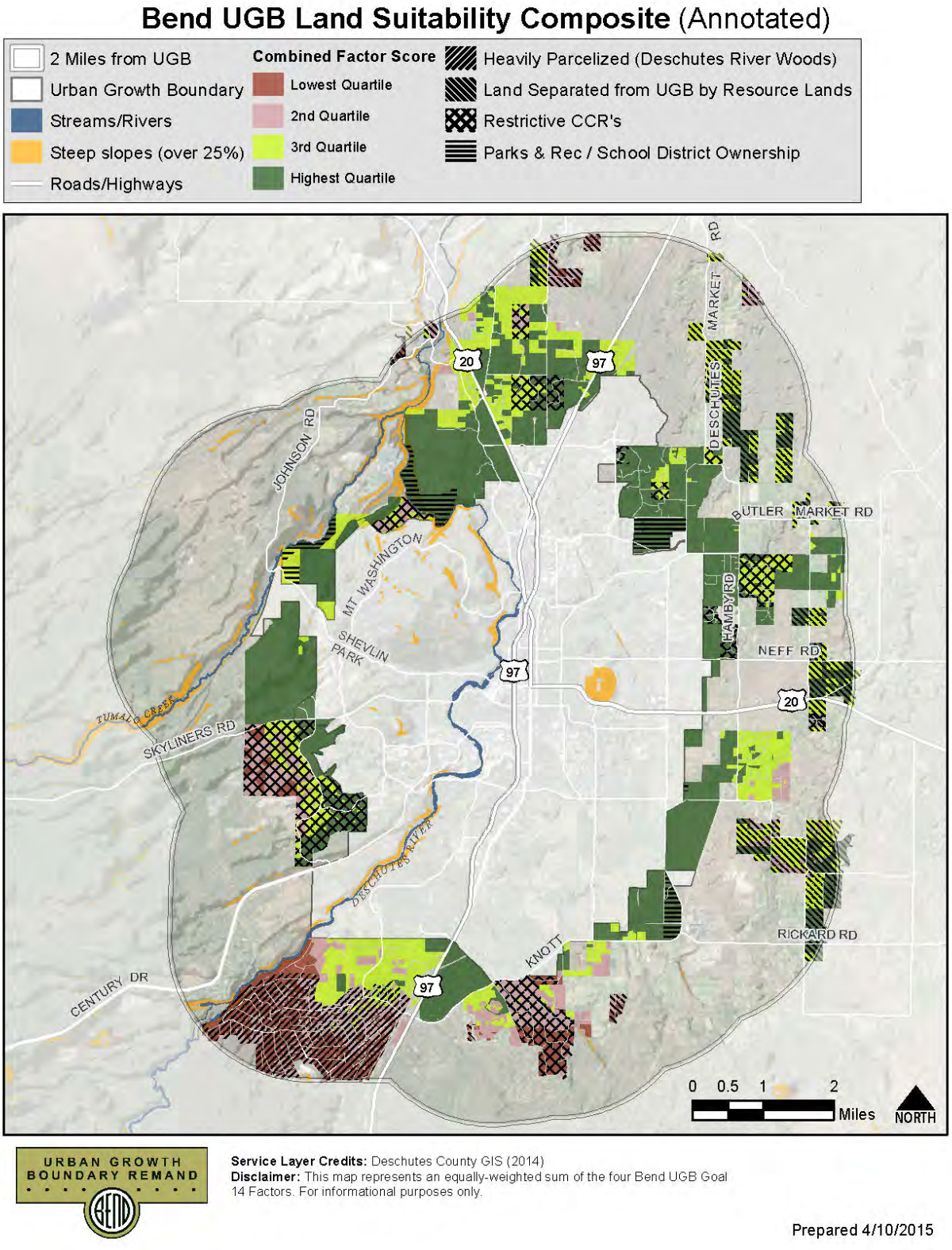
- Excluding exception lands within the Deschutes County Wildlife Overlay (deer winter range)
- Excluding exception lands that are separated from the existing UGB by resource lands
- Excluding active mining site that is currently zoned for Surface Mining (approximately 200 acres of Coats property)
- Excluding lands with recorded CC&Rs that preclude land divisions and additional dwellings
- Excluding heavily parcelized areas with smaller parcels (less than 2 acres) and numerous dwellings that severely limit capacity for new development
- Excluding rural residential subdivisions (generally less than 5 acre lots) with higher improvement to land value ratios that severely limit capacity for new development within the 2028 planning horizon

The results of the above-described narrowing process are shown on Figure 1: Composite Suitability Score and Phase 1 Screening.

[2] The Stage 2 mapping included a fairly coarse level of public facilities (particularly transportation and sewer) based on GIS and available information in adopted facility plans. Based on input from the Boundary TAC at the last meeting, the project team will be analyzing a larger pool of dark green lands to retain some flexibility and better information on the relative advantages, disadvantages and costs of providing infrastructure to alternative subareas (See OAR 660-024-0060(8)).

The project team is confident that the narrowing of priority exception lands to the approximately 6,000 acres of highest quartile “good” lands that were carried forward to the UGB scenarios workshop is consistent with the legal requirements of OAR 660-024-0060. In summary, the process of: (1) defining a study area, (2) applying limited suitability screening criteria, (3) weighing and balancing all Goal 14 factors, and (4) using the results of the composite annotated maps to form specific UGB expansion scenarios to meet identified needs is consistent with the Division 24 rule, as well as the McMinnville case (see Appendix B for the August 19, 2014 memorandum from the City Attorney regarding this case that was provided previously to the Boundary TAC).

Figure 1: Composite Suitability Score and Phase 1 Screening



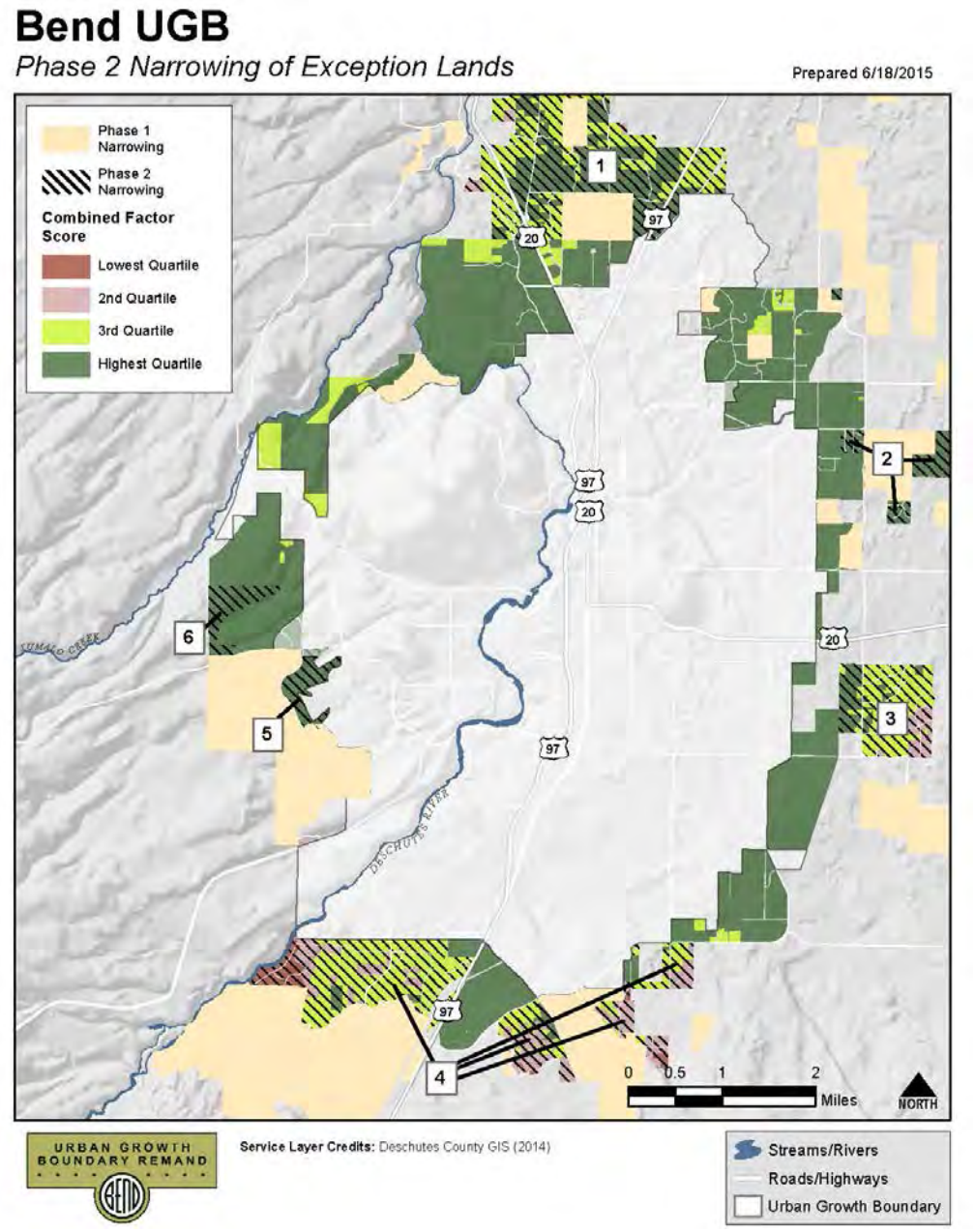
Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of the four Bend UGB Goal 14 Factors. For informational purposes only.

Prepared 4/10/2015

Further Refinements

As directed by the Boundary TAC, the project team is providing additional explanation of why other dark green lands that were not screened out as “unsuitable” on Figure 1 should not be advanced for further analysis. The reasons the lands identified on Figure 2: Phase 2 Narrowing of Exception Lands are not advanced for further analysis include: (1) a subarea overall does not score well based on the balancing of the Goal 14 factors, (2) they are separated from the UGB by resource lands or lands with restrictive CC&Rs, and/or (3) they are unlikely to be able to accommodate identified land needs. Please note also that these findings are at a high level, and will be refined further when legal findings are prepared.

Figure 2: Phase 2 Narrowing of Exception Lands



Subarea 1

This large rural residential exception area (just under 1,600 acres) is located north of Cooley Road generally between Hwy 97 and Hwy 20. The Combined Factor Score for this subarea is a mix of light green (3rd quartile) and dark green (highest quartile). The subarea has a mix of parcel sizes, with parcels in the 5-10 acre size the most predominant. A relatively large rural residential subdivision (about 220 acres) with restrictive CC&R's is located at the southerly boundary of this subarea equidistant to Hwy 97 and Hwy 20 and represents a barrier to efficient expansion to the north. Some of the larger undeveloped parcels abutting Hwy 97 may be suitable for longer-term urbanization, but they are more distant and/or isolated from the existing UGB. Additionally, the Stage 2 maps for Factor 2 (transportation) indicate that this subarea has moderate barriers to connectivity and a higher percentage of vehicle trips from this subarea would be reliant on a congested corridor.

Subarea 2

This consists of a relatively small subdivision (approximately 30 acres) located on the south side of Nelson Road and the west side of Hamby Road and two other areas east of Hamby Road totaling about 360 acres. While the subarea shows up as largely dark green on Figure 1, the portion west of Hamby Road is subdivided into small lots (average lot size is a half-acre) with a relatively high improvement to land value ratio. The portion east of Hamby is separated from the UGB by a mix of land with restrictive CC&Rs and resource land.

Subarea 3

This subarea (approximately 550 acres) is located between Hwy 20 and Stevens Road surrounding Hamby Road. While the portion of the subarea west of Hamby Road shows up as dark green (Highest Quartile) on the Combined Factor Score, it is rated as having poor connectivity to a complete roadway grid; the portion east of Hamby Road is generally light green (3rd Quartile) to pink (2nd Quartile) on the Combined Factor Score. It is also relatively far from the UGB and would further surround zoned resource land.

Subarea 4

This subarea includes a large rural residential exception area (approximately 820 acres, mostly River Bend Estates) bounded by the UGB on the north, Deschutes River Woods on the south, Hwy 97 on the east and the Deschutes River on the west. It also includes roughly 500 acres of rural residential exception area east of Hwy 97 and south of Knott Road. The subarea is largely ranked light green (3rd Quartile) and pink (2nd Quartile) on the Combined Factor Score. There is a small pocket of dark green adjacent to Hwy 97 and the UGB (the roughly 40-acre Baney property), and a few smaller pockets of dark green (Highest Quartile) on the Combined Factor Score (undeveloped parcels that are about 20 acres each) further south and west.

Subarea 5

Subarea 5 consists of common open space lands located between the existing UGB and Cascade Highlands and Tetherow destination resort. These two developments are subject to CC&Rs that restrict development as shown on Figure 1. The remaining area that shows up as

dark green (Highest Quartile) on the Combined Factor Score is associated with common open space tracts and should not be considered buildable or suitable for urbanization.[3]

Subarea 6

This subarea is located west of the UGB and north of Skyliners Road. The project team does not recommend further consideration of Subarea 6 because it is included in a rural cluster subdivision proposal (Miller Tree Farm – 50 lots) that is pending on appeal to the Deschutes County Board of Commissioners. The portion of the Miller Tree Farm proposal west of Subarea 6 was already screened from further consideration at the end of Phase 1.

Summary

For the reasons stated above, the project team recommends that Subareas 1 through 6 not be advanced for further analysis. This further narrowing is justified based on the above-described characteristics, and is important because of the availability of other dark green lands that do not have the disadvantages described. The narrowing of Subareas 1 through 6 removes approximately 4,200 acres from further consideration, leaving a pool of roughly 5,500 acres.

A matrix is included with this memo (Appendix C) to articulate the key characteristics, advantages and disadvantages of the remaining higher-ranked (dark green) lands.

Recommendation

The project team recommends that the Boundary TAC approve, and forward to the USC, the lands to be screened from further consideration as described beginning on page 5 and shown on Figure 2: Phase 2 Narrowing of Exception Lands.

MAINTAINING FLEXIBILITY

Recommended Approach: Overview and Rationale

As stated previously, the Boundary TAC asked the project team to bring a larger pool of “dark green” land forward as part of scenarios’ analysis, in order to provide some flexibility for when the proposed UGB is crafted. The Boundary TAC was especially interested in lands adjacent to land already included in scenarios and having the ability to respond to what is learned from modeling of water, sewer, and transportation infrastructure. Achieving this creates a dilemma: given the limited land need, incorporating all the “dark green” land that cannot be excluded at this stage would require a large number of scenarios (perhaps five to 10). The team experimented with this approach, and found that in order to reach the outer extents of the dark green in certain areas, nearly all the residential land need would be accommodated in a single subarea, creating some scenarios that are rather unrealistic and very different from the workshop results. In addition, because the scenarios will be analyzed as a whole and at the

[3] This is consistent with the approach taken to categorize open space tracts as unbuildable in the Buildable Lands Inventory inside the UGB.

subarea level, and because the infrastructure systems are connected and inter-related, there are a nearly infinite number possible combinations of different levels of growth in different subareas.

To provide the flexibility requested by the Boundary TAC, and minimize the challenges described above, the team is proposing the following approach:

- **Stay the course with the 3 draft scenarios from the June 9th meeting, refining them to incorporate ideas from the Boundary TAC**. As required by state law, these are "budgeted" scenarios that represent the land need to the year 2028 and consistent with McMinnville Step 3 (see Appendix B). The Boundary TAC's input into, and refinement of, these scenarios will continue on June 24th.

- **Create a supplemental analysis map that is a composite of the 3 scenarios and includes additional adjacent lands** that are the "dark green" lands on Figure 2. The analysis map would not be constrained by 2028 land needs. It would provide a larger pool of lands to use strictly for the purposes of analyzing areas outside of the three scenarios, and to allow refinements to boundary expansion scenarios based on results of the infrastructure modeling. Its purpose is to test infrastructure impacts for additional lands, and inform the Boundary TAC's subsequent creation of a hybrid scenario. For example, if modeling of the scenarios reveals significant impacts to infrastructure systems, and the supplemental analysis map modeling reveals lands that have few to no impacts, it may be possible to create a modified UGB expansion to include the lands with fewer negative infrastructure impacts.

The above-described approach is intended to: (1) honor the ideas from all three TACs and the USC at the workshop as represented on the current draft scenarios; (2) provide a larger pool of land to learn from and consider if the Boundary TAC and USC choose to; (3) resolve the dilemma described above; and (4) keep the work moving forward per the Phase 2 process endorsed by the Boundary TAC and USC.

The project team believes there could be schedule and budget implications to this approach, but that both are manageable. Murray Smith Associates (for water and sewer) and DKS Associates (for transportation) report that they can provide a high-level analysis of the impacts to the relevant infrastructure systems for the supplemental analysis map. This supplemental analysis will inform the pros/cons/cost differences of including the additional lands shown on the analysis map in a hybrid scenario, should the Boundary TAC choose to do so in October.

To be clear, at this time, lands included on the supplemental analysis map, but not in a scenario, are not proposed as UGB expansion areas. They are supplemental analysis areas. As such, they will be studied but will be considered as expansion areas only if the Boundary TAC or USC chooses to look beyond the pool of lands included in scenarios. This approach is intended to provide the flexibility requested by the Boundary TAC. It is worth noting that this approach exceeds the requirements of the Division 24 rule (guiding UGB expansion analyses), yet provides more information into the process of boundary formation.

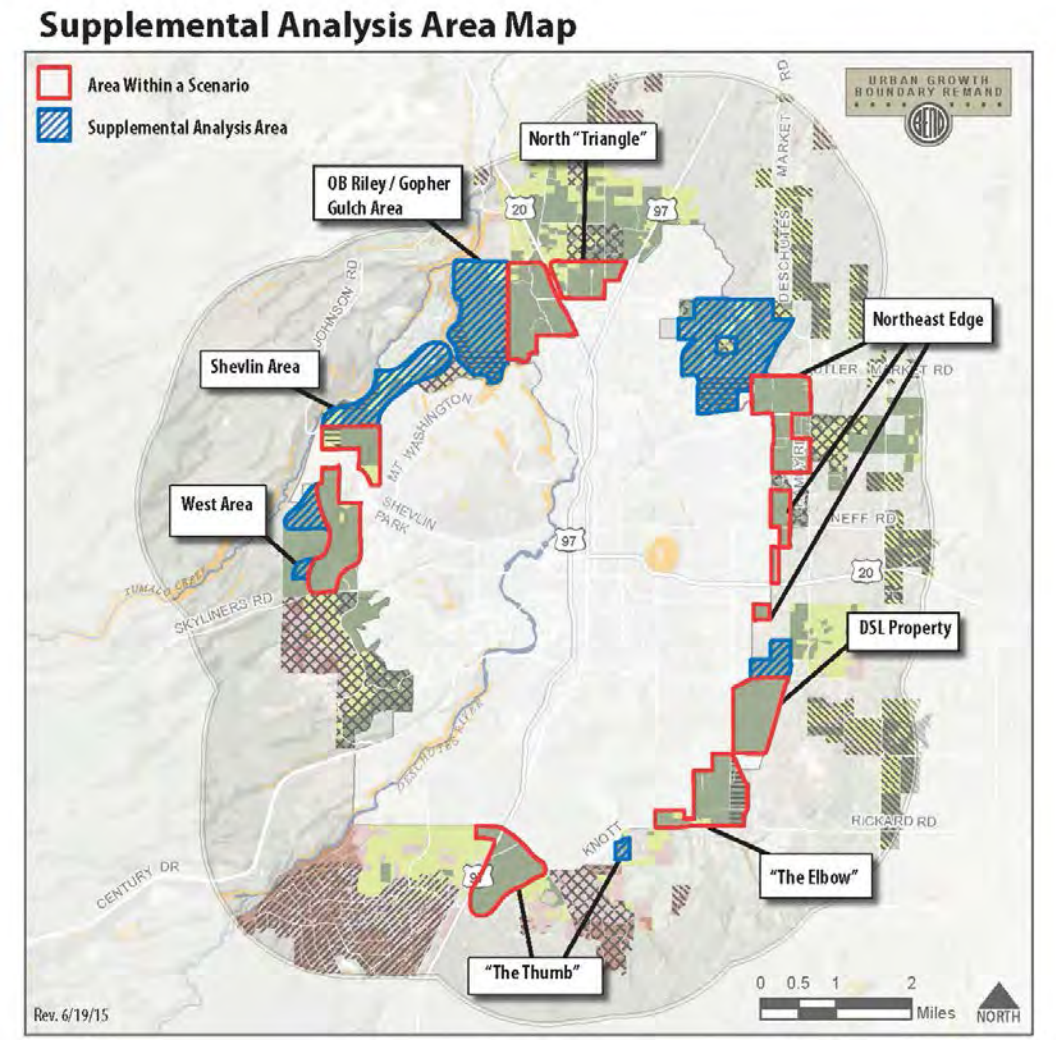
Implementing the Approach

Description of the Supplemental Analysis Area

The proposed Supplemental Analysis Area Map is shown on Figure 3. The lands in the Supplemental Analysis Area are generally adjacent to lands included within scenarios (shown on Figure 4 through Figure 9, beginning on page 16); however, in terms of geography and character, the supplemental analysis areas generally have one or more of the following conditions:

- Lands that are not as proximate to the UGB and existing urban development as the adjacent expansion areas (e.g. the western portion of Gopher Gulch);
- Lands that are more developed and have relatively low potential for new growth that will help meet the land need within the 2028 planning horizon (e.g. the rural residential area north of Pine Nursery Park); or
- Lands that are proximate to natural resources and/or farm/forest land at outer edge of many subareas.

Figure 3: Proposed Supplemental Analysis Area and Land Proposed for Inclusion in a Scenario



Summary of the evaluation that will be conducted

Scenario Evaluations

The Boundary TAC discussed and agreed upon performance measures to use in evaluating each of the four Goal 14 factors in "Stage 4", the evaluation of scenarios. Those are summarized in brief below; the full version is included in Appendix D.

Factor 1: Efficient accommodation of identified land needs

Using the Envision Tomorrow model, the Factor 1 evaluation will focus on: the extent of expansion, density, growth inside vs. outside the current UGB, and growth through infill/redevelopment. Note: additional evaluation of the desirability of areas identified for commercial and industrial uses is also proposed to be done for the scenarios. An evaluation of urban form considerations will also be prepared.

Factor 2: Orderly and economic provision of public facilities and services

Transportation evaluations will be conducted using both the Envision Tomorrow "7D" transportation analysis tool and the Travel Demand Model. These evaluations will analyze Vehicle Miles Traveled (VMT) per capita, auto/walk/bike mode split, congestion, support of transit, need for new transportation facilities, and impacts on bicycle/pedestrian system. Transportation costs for major improvements will be provided.

The water infrastructure evaluation will focus on the cost of new facilities using optimization model (limited to area served by City of Bend) and unit cost estimates from Envision Tomorrow.

The sewer infrastructure evaluation will be conducted using the City's optimization model. The analysis will identify the system level improvements (e.g. larger pipes, pump stations, interceptors) that are required to sewer to serve the scenarios. Cost of new facilities and system improvements will be provided.

The stormwater evaluation will use Envision Tomorrow to map expansion within sensitive or challenging areas for stormwater.

Note: the above-described evaluations will look at the scenario as a whole; however, where results can be attributed to a particular subarea or quadrant of the city, they will be reported that way.

Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)

The ESEE evaluation will use Envision Tomorrow and focus on development in environmentally sensitive areas, housing affordability, proximity to schools and parks, and jobs/housing balance.

In addition, wildfire site assessments will be conducted for lands included in a scenario and adjacent buffer areas, which will also support Factor 3 analysis. The City is coordinating with the irrigation districts to define how the impact to irrigation districts may also be considered as an economic consequence.

Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB

The evaluation will use Envision Tomorrow, focusing on where the proposed boundary abuts resource land. Per TAC direction, the evaluation will seek information about lands being irrigated for agriculture.

Supplemental Analysis

For the supplemental analysis areas, the team is still refining the details of the proposed evaluation. The highest priority is to provide information related to infrastructure costs for Factor 2; however, the team proposes doing a high level of analysis for all four factors.

For Factor 2, this would likely include:

- **Sewer and Water:** Sensitivity testing using the optimization model, to determine whether the type, size or location of required infrastructure improvements change significantly when the UGB areas are expanded.[4]
- **Transportation:** Either using the Travel Demand Model, focusing on congestion and major infrastructure needs, or a qualitative assessment of what additional issues might arise that differ from what was modeled in the scenarios

For the other factors, the team proposes a qualitative, high level assessment focusing on the salient issues in each subarea.

Using the evaluation to create a proposed draft UGB

The project team will present the results of the scenario evaluations and supplemental analysis to the Boundary TAC in October. This will be a complex body of information. It will be summarized in executive summary narratives, tables, graphics intended to help the Boundary TAC see patterns of pros, cons, and trade-offs for the scenarios. The scenarios being approved for evaluation can be thought of as a "kit of parts" from which the Boundary TAC will identify the best performing elements that meet state law and Bend's goals. If the Boundary TAC sees a need to consider land from the supplemental analysis areas, it will have the latitude and base information from which to do so.

The criteria guiding the creation of the hybrid will be the four Goal 14 factors and the project goals. As stated in state law, this will be a balancing process: *"The boundary location factors of Goal 14 are not independent criteria. When the factors are applied to compare alternative boundary locations and determine the UGB location, a local government must show that all the factors were considered and balanced."* (OAR 660-024-0060(3)) The team will work with the Boundary TAC leadership to define a process of structured decision making for the Boundary TAC to use in identifying the preferred elements, and rationale, of the proposed "hybrid" plan. The hybrid will be the working draft proposed UGB. Once the hybrid is defined, it will be run through the Goal 14 evaluations once more to update the factual base and support the Boundary TAC's recommendation for a proposed UGB that will be forwarded to the USC.

[4] The team will provide the scenarios to Avion for analysis of impacts in their service area.

Recommendation

The project team recommends forwarding the approach described under "Recommended Approach: Overview and Rationale" starting on page 8 and the set of lands for scenarios and supplemental analysis on Figure 3 (page 10) to the USC for approval.

SCENARIO REFINEMENTS

Boundary TAC Comments

At the June 9th Boundary TAC meeting, the Boundary TAC discussed the first draft of proposed scenarios. The Boundary TAC did not vote on specific refinements; however, individual members suggested refinements for the team to consider. These are listed below along with a brief note about how/whether they are reflected in the refined scenarios. In addition, a comment log of public testimony is included in Appendix E.

Boundary TAC Comment	Project Team Response
Include more of Northeast Edge in a scenario, particularly Butler Market Village	See Scenario 1.1; also included more on Supplemental Analysis Map
Lots of emphasis on southeast – spread more	Scenarios 1.1 and 1.3 provide choices that include limited growth in southeast. Scenario 1.2 retains more growth in southeast to reflect workshop results and for testing purposes
Employment a better fit in the North "Triangle" than residential	The scenarios retain both choices (employment focus and a more mixed community) to reflect workshop results and for testing purposes
Include land adjacent to "The Thumb" in a scenario (Baney property)	See Scenario 2.1
Include an all-eastside scenario, moving growth from West Area to east or near "The Thumb"	Scenario 1.1 includes a relatively small west-side expansion; the team believes this is at the smallest west side expansion that is consistent with workshop ideas and TAC discussions to date.
Include more residential on "The Thumb"	Scenario 2.1 includes residential on the Thumb – the relatively large employment land need drives employment emphasis in this area

Boundary TAC Comment	Project Team Response
Spread growth a little more around the perimeter rather than concentrating in a few areas	See Scenario 3.1 – slightly more spreading of growth; further distribution is challenging due to heavy employment need and limited residential need
Bring in the block of SR2.5 between Yeoman Road and Juniper Ridge on the northeast side of the city to provide better connectivity to Juniper Ridge	Not included on a scenario, but considered on the Supplemental Analysis Area Map for the reasons articulated by the Boundary TAC. Very low development capacity is assumed because the area is already developed.
Take the east side of Juniper Ridge out of the UGB	The team does not consider this a realistic option at this time; would require finding other land for employment, which is a challenge already.
Consider bringing in Deschutes River Woods (DRW)	Not included on a scenario or on the analysis map. This area has been analyzed and does not score well per the Bend UGB Suitability Composite Map (Annotated), which represents the balancing of the Goal 14 factors. There is very little development potential. The Remand is clear that the City cannot bring in land that does not meet an identified land need. There would likely be strong resistance from current residents.

Overview of Refined Scenarios

The following information is presented for each scenario:

- Scenario description, including overall themes and relationship to workshop concepts.
- Simplified scenario map, using three generalized categories (see below)
- Detailed scenario map, using Envision Tomorrow “development types” (see Appendix F for more about the development types)

For convenience, a side-by-side comparison of the previous scenarios and the refined versions is presented in Appendix G.

The categories shown on the generalized scenario maps are as follows (same as June 2 materials):

- *Residential area with locally-serving employment*: Predominately residential uses, with supportive uses such as parks, schools, and local commercial centers. Employment uses in the area are estimated to provide fewer than roughly 400 jobs.
- *Residential area with significant employment*: A full mix with residential uses, parks and/or schools, and commercial and employment areas. Employment uses in the area are projected to provide roughly 400 jobs or greater.
- *Employment area*: Employment-focused area providing for a mix of jobs (retail, office, and/or industrial) with little or no residential use.

Note that these categories are used for communication purposes only, and do not necessarily reflect official land use designations that would be applied to expansion areas.

The identification of future community parks and schools on both the simplified and the detailed maps is preliminary and subject to further refinement with the school and park districts.

The UGB Expansion scenarios were created using "development types" that generally represent Bend's General Plan designations; however, the assignment of development types in expansion areas is preliminary and does not indicate specific locations for proposed plan designations. The arrangement of land uses may differ significantly from what is shown on the detailed maps, particularly for large properties that will be subject to master planning requirements.[5]

The development types contain various assumptions calibrated by the project team with the best available information and with TAC direction at various stages, including the type and intensity of development expected; set-asides for streets, neighborhood parks, and other lands; and rates of redevelopment expected for developed land.

Note that, as with the original three scenarios presented on June 9th, the assumptions inside the current UGB are constant across the three scenarios.

Expansion Scenario 1.1

Overview

This scenario focuses large new employment districts in the North "Triangle" and in "The Thumb" along Highway 97. This picks up on a workshop idea from a few tables of keeping the North "Triangle" non-residential, and tests a non-residential option for "The Thumb" in order to test residential use in other areas identified in the workshop. The West Area contains uses surrounding a locally-serving commercial core. Portions of the DSL property and "The Thumb" contain a mix of housing and employment as well. This scenario has significant expansions in the Northeast Edge. The Large Lot Industrial need is met in the DSL Property.

What's changed from Scenario 1.0

- Significantly increased residential development in Northeast Edge
- Reduced residential development in DSL Property and West Area.

[5] Note that large properties were divided into 2.5 acre grids for the purposes of assigning development types; thus, the edges are rough and the development types are assigned at a relatively low "resolution".

- Large Lot Industrial Area relocated from “The Thumb” to DSL Property.
- Minor refinements to individual properties in NE based on existing uses.

Figure 4: Expansion Scenario 1.1 Overview Map

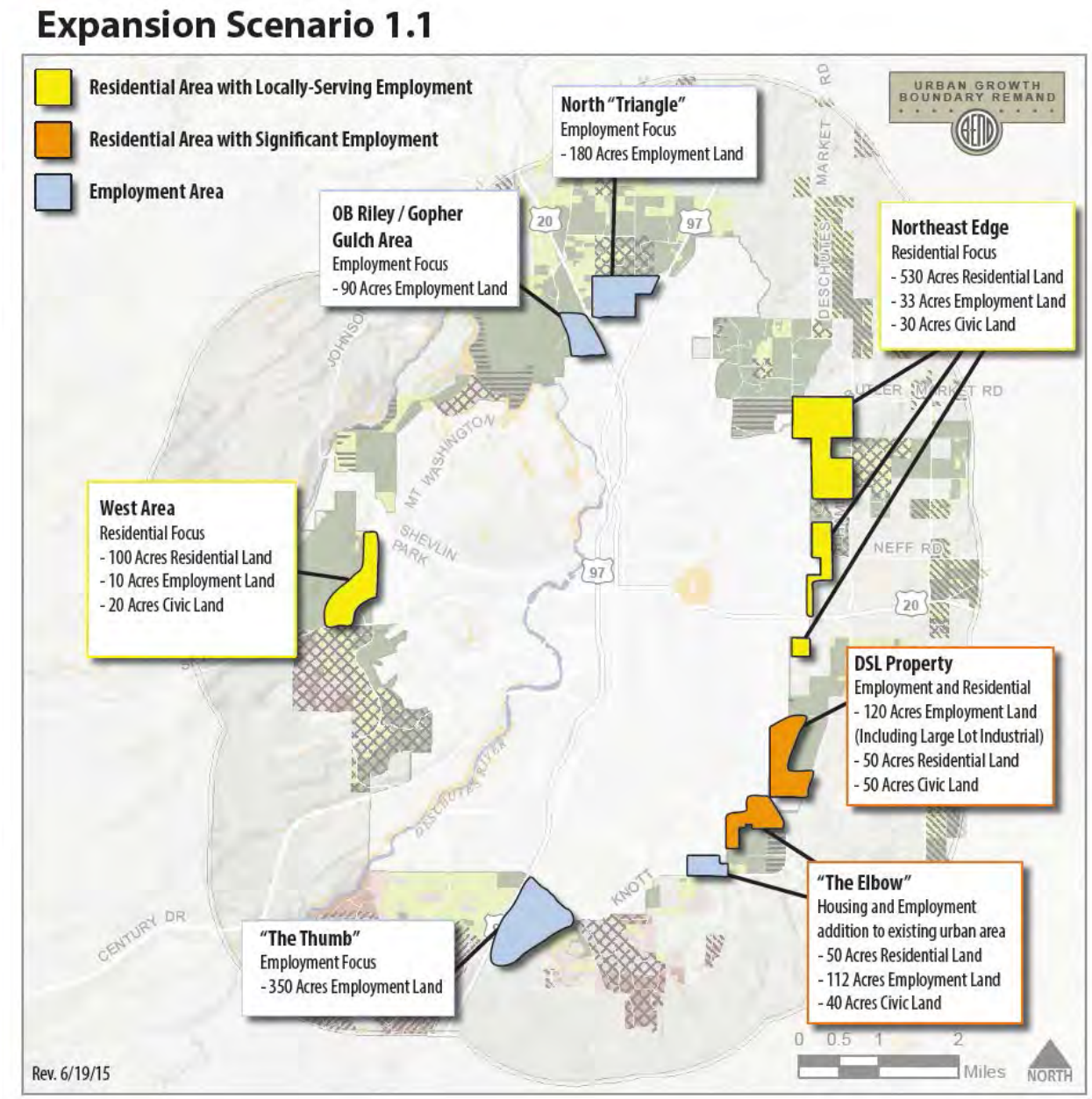
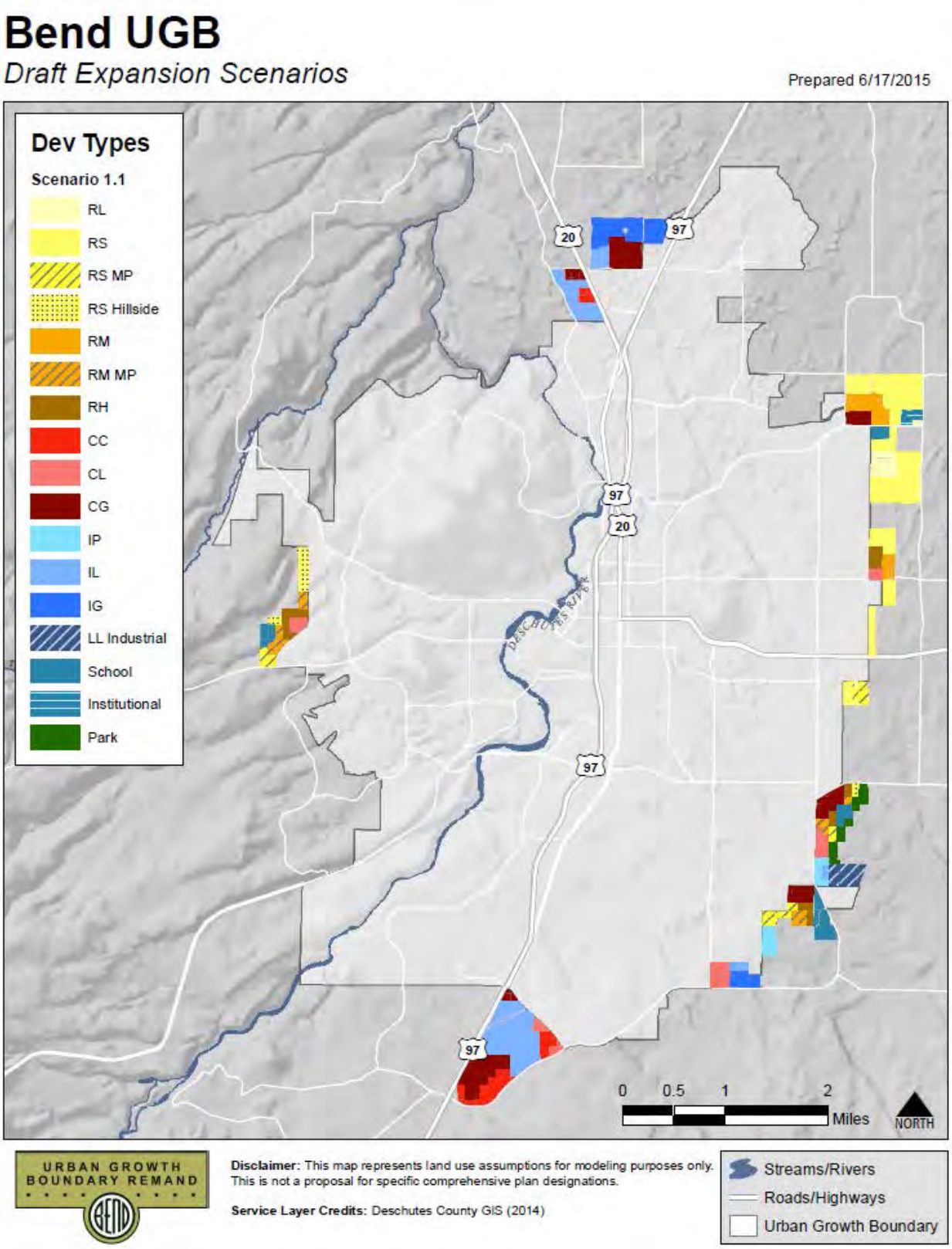


Figure 5: Expansion Scenario 1.1 Detail Map



Expansion Scenario 2.1

Overview

This scenario focuses on creating new "complete communities" with a mix of housing and employment in all quadrants of the City. Nearly all expansion areas provide a full mix of uses, including housing, employment areas, shopping/services, and schools and parks. This scenario emphasizes southeastern expansion, including significant growth in the DSL Property, “The Elbow,” and “The Thumb.” This scenario tests workshop ideas including fully utilizing “The Elbow” to create a new complete community, incorporating residential uses (predominately multifamily housing) in the North “Triangle”, and placing some industrial/professional office in the West Area. The Large Lot Industrial Site is located between Highway 20 and OB Riley Road in this scenario, picking up on an idea from one of the workshop groups.

What’s changed from Scenario 2.0

- Slightly increased residential development in Northeast Edge
- Slightly decreased residential development in the West Area
- Added development on property adjacent to “The Thumb”
- Reduced development in southern portion of “The Thumb”

Figure 6: Expansion Scenario 2.1 Overview Map

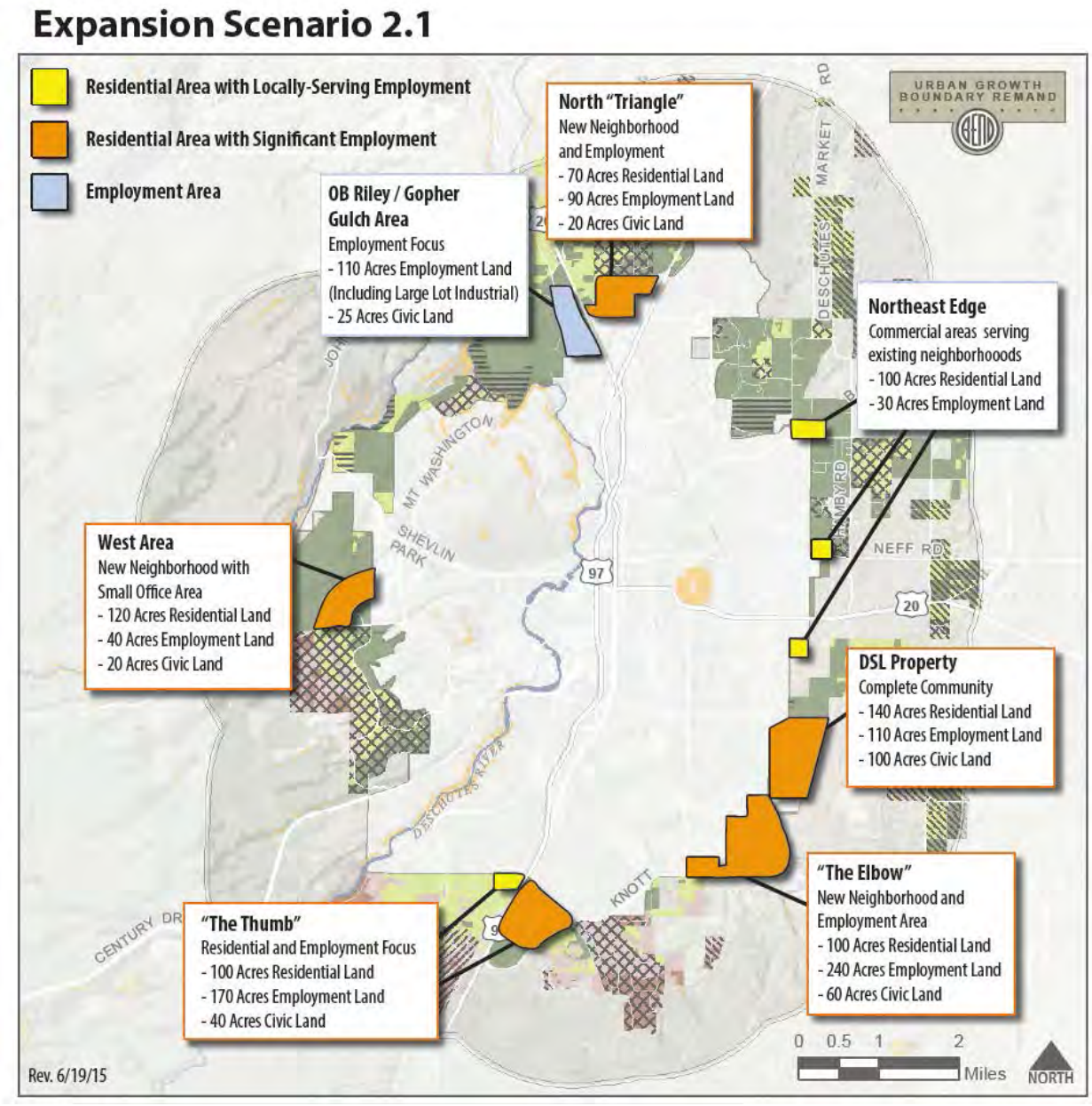
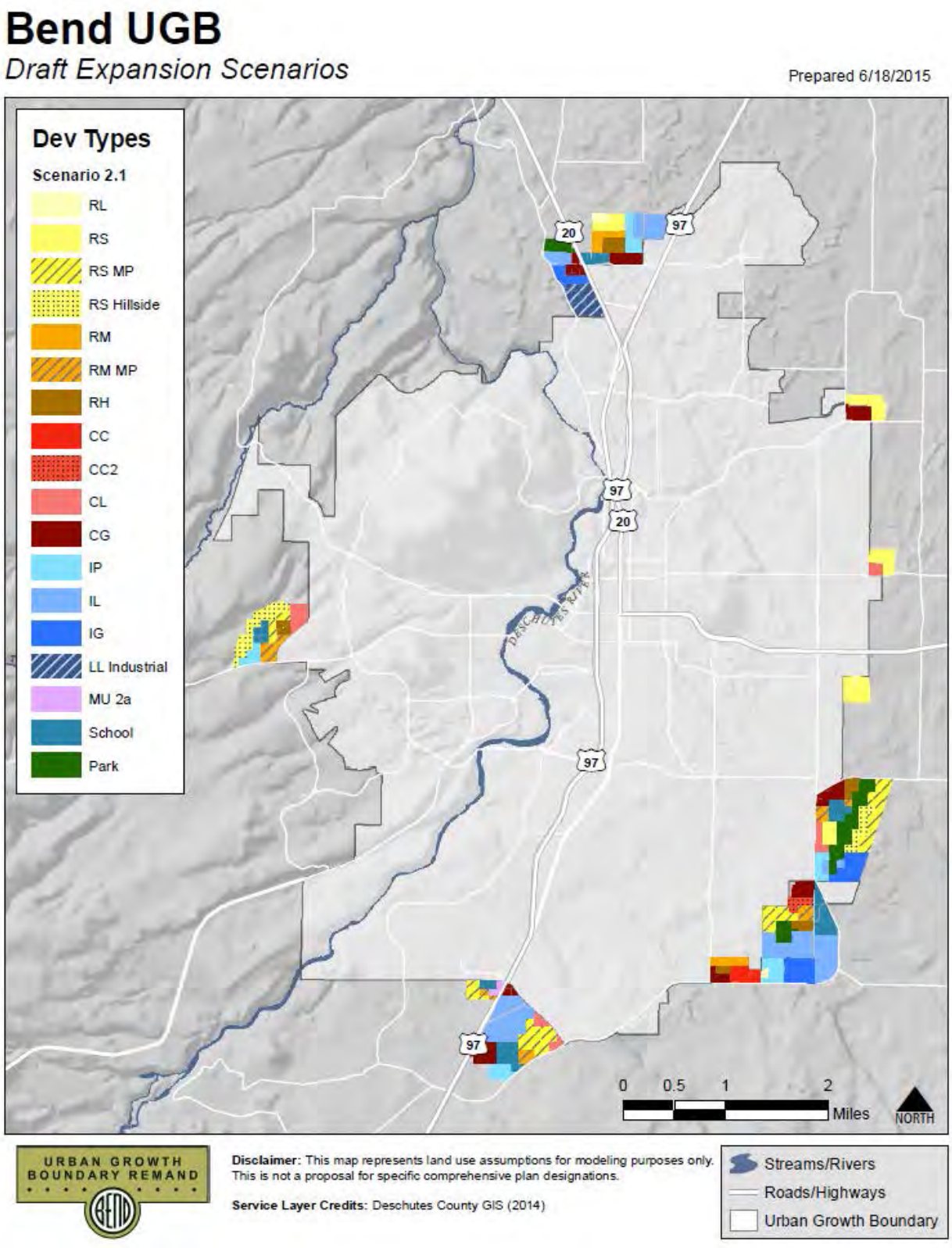


Figure 7: Expansion Scenario 2.1 Detail Map



Expansion Scenario 3.1

Overview

This scenario focuses a larger amount of expansion to the north and west of the city, and includes a relatively large area along OB Riley adjacent to Gopher Gulch. Only portions of large vacant sites in the southeast (DSL Property, “The Elbow” and “The Thumb”) are included. The Large Lot Industrial Site is located in the North “Triangle” – this area, though not selected by any of the workshop groups, appears to meet the site characteristics needed for that use, and has an employment focus in this scenario. This scenario tests other workshop ideas, including bringing in the Shevlin area for a mix of uses and bringing in the area west of OB Riley Road for residential uses.

What’s changed from Scenario 3.0

- Slightly increased residential development in Northeast Edge
- Slightly decreased residential development in the West Area
- Reduced development in southern portion of DSL property

Figure 8: Expansion Scenario 3.1 Overview Map

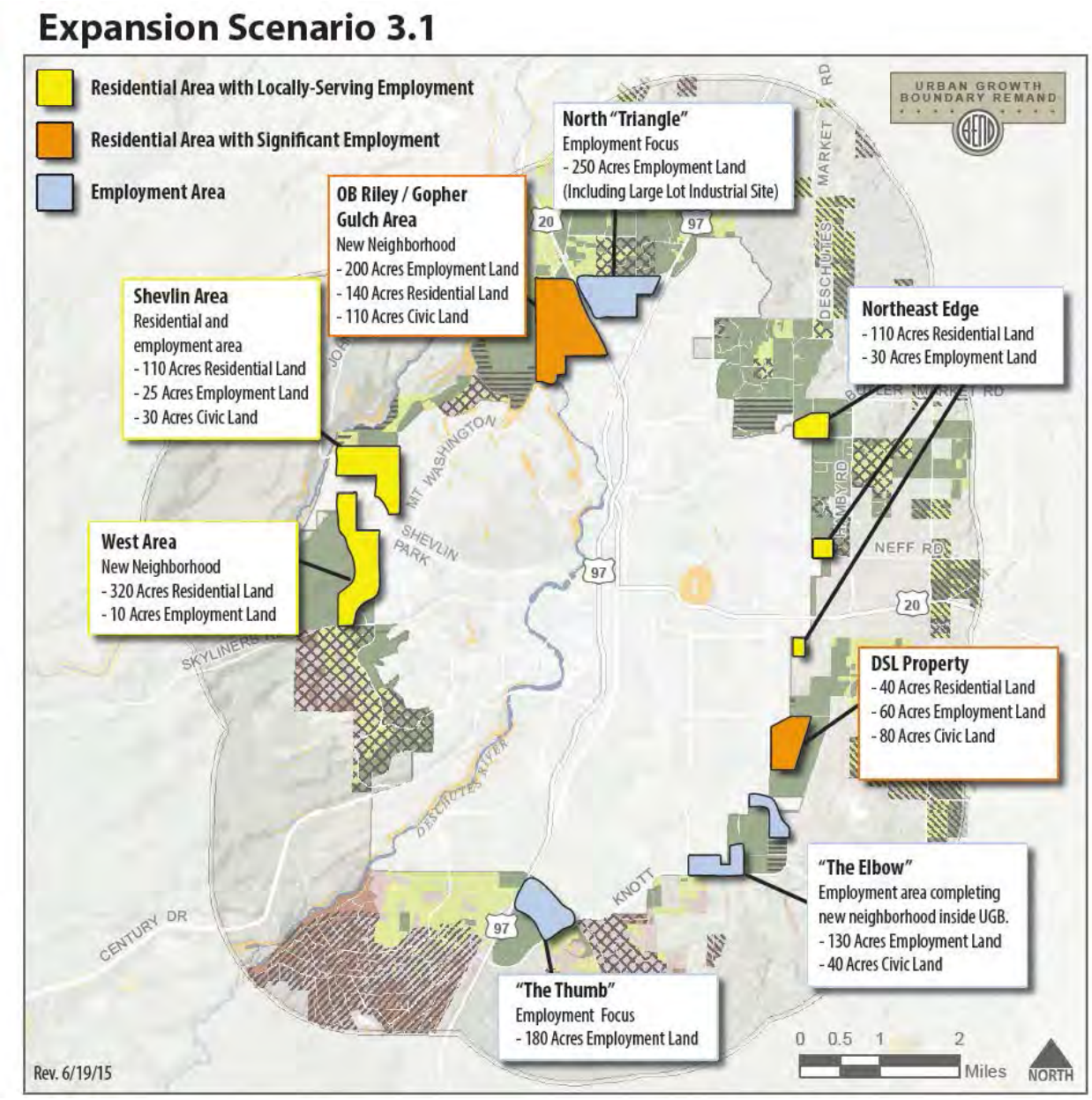
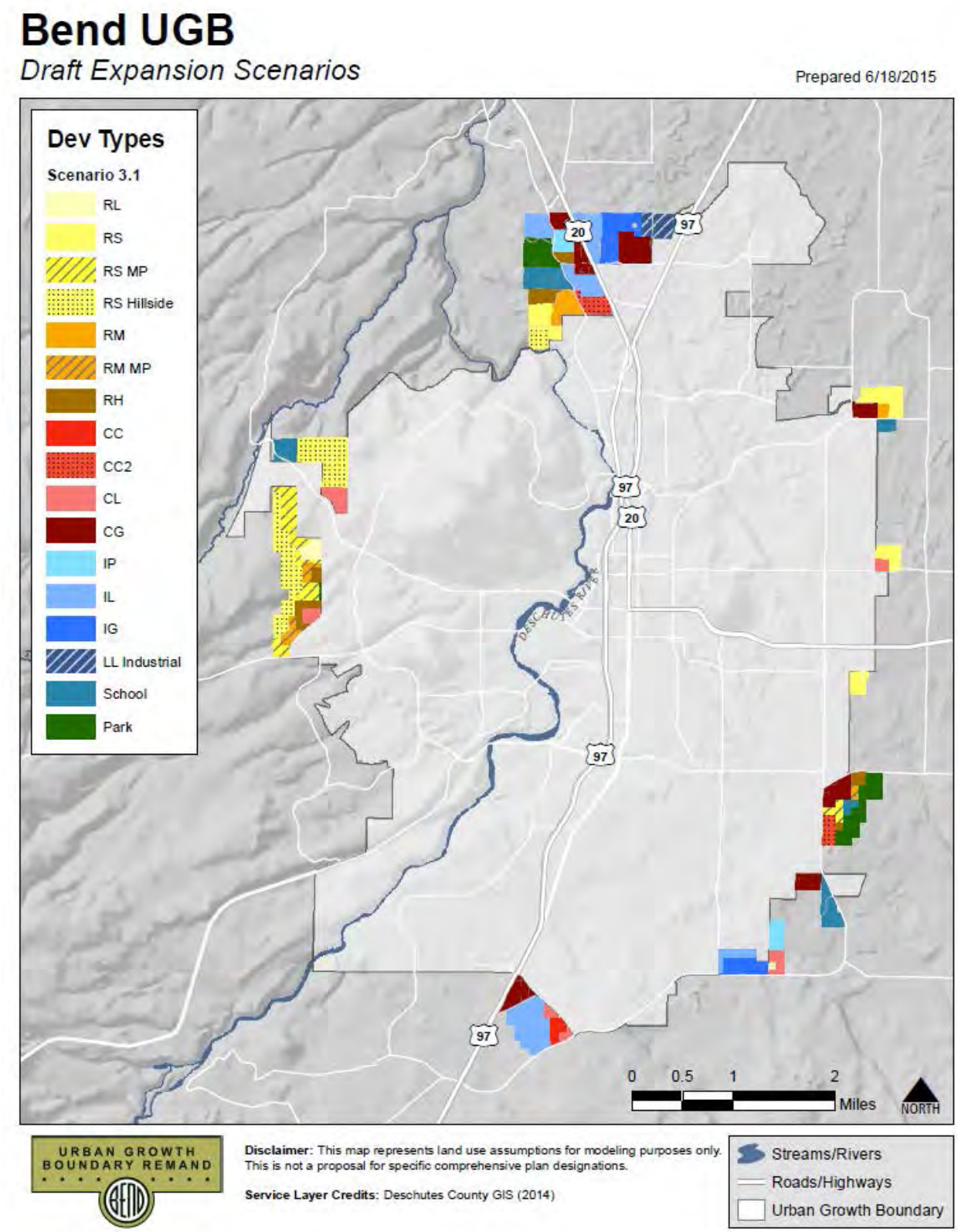


Figure 9: Expansion Scenario 3.1 Detail Map



Questions for the Boundary TAC

1. Are there any changes the Boundary TAC wishes to propose to Expansion Scenario 1.1?

2. Are there any changes the Boundary TAC wishes to propose to Expansion Scenario 2.1?

3. Are there any changes the Boundary TAC wishes to propose to Expansion Scenario 3.1?

4. Are there any different scenarios a TAC member wishes to propose?

Recommendation

Forward the slate of scenarios, as revised, to the USC.

APPENDICES

A. Goal 14 administrative rule (660-024-0060)
B. City Attorney Memorandum Regarding Boundary Analysis and McMinnville Case (August 19, 2014)
C. Suitability Criteria and Key Characteristics, Advantages and Disadvantages of Remaining Land
D. Table 1 Goal 14 Factors (Stage 2 indicators and Stage 4 performance measures)
E. Comment Log of Public Testimony
F. UGB Expansion Scenario Assumptions and Development Type Details
G. Side-by-Side Scenarios, Original and Refined Versions

APPENDIX A:

Goal 14 administrative rule (660-024-0060)

DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT

DIVISION 24

URBAN GROWTH BOUNDARIES[1]

660-024-0060

Boundary Location Alternatives Analysis

(1) When considering a UGB amendment, a local government must determine which land to add by evaluating alternative boundary locations. This determination must be consistent with the priority of land specified in ORS 197.298 and the boundary location factors of Goal 14, as follows:

(a) Beginning with the highest priority of land available, a local government must determine which land in that priority is suitable to accommodate the need deficiency determined under OAR 660-024-0050.

(b) If the amount of suitable land in the first priority category exceeds the amount necessary to satisfy the need deficiency, a local government must apply the location factors of Goal 14 to choose which land in that priority to include in the UGB.

(c) If the amount of suitable land in the first priority category is not adequate to satisfy the identified need deficiency, a local government must determine which land in the next priority is suitable to accommodate the remaining need, and proceed using the same method specified in subsections (a) and (b) of this section until the land need is accommodated.

(d) Notwithstanding subsection (a) to (c) of this section, a local government may consider land of lower priority as specified in ORS 197.298(3).

(e) For purposes of this rule, the determination of suitable land to accommodate land needs must include consideration of any suitability characteristics specified under section (5) of this rule, as well as other provisions of law applicable in determining whether land is buildable or suitable.

(2) Notwithstanding OAR 660-024-0050(4) and subsection (1)(c) of this rule, except during periodic review or other legislative review of the UGB, a local government may approve an application under ORS 197.610 to 197.625 for a UGB amendment proposing to add an amount of land less than necessary to satisfy the land need deficiency determined under OAR 660-024-0050(4), provided the amendment complies with all other applicable requirements.

[1] http://arcweb.sos.state.or.us/pages/rules/oars_600/oar_660/660_024.html, accessed 6/22/15.

(3) The boundary location factors of Goal 14 are not independent criteria. When the factors are applied to compare alternative boundary locations and to determine the UGB location, a local government must show that all the factors were considered and balanced.

(4) In determining alternative land for evaluation under ORS 197.298, "land adjacent to the UGB" is not limited to those lots or parcels that abut the UGB, but also includes land in the vicinity of the UGB that has a reasonable potential to satisfy the identified need deficiency.

(5) If a local government has specified characteristics such as parcel size, topography, or proximity that are necessary for land to be suitable for an identified need, the local government may limit its consideration to land that has the specified characteristics when it conducts the boundary location alternatives analysis and applies ORS 197.298.

(6) The adopted findings for UGB adoption or amendment must describe or map all of the alternative areas evaluated in the boundary location alternatives analysis. If the analysis involves more than one parcel or area within a particular priority category in ORS 197.298 for which circumstances are the same, these parcels or areas may be considered and evaluated as a single group.

(7) For purposes of Goal 14 Boundary Location Factor 2, "public facilities and services" means water, sanitary sewer, storm water management, and transportation facilities.

(8) The Goal 14 boundary location determination requires evaluation and comparison of the relative costs, advantages and disadvantages of alternative UGB expansion areas with respect to the provision of public facilities and services needed to urbanize alternative boundary locations. This evaluation and comparison must be conducted in coordination with service providers, including the Oregon Department of Transportation with regard to impacts on the state transportation system. "Coordination" includes timely notice to service providers and the consideration of evaluation methodologies recommended by service providers. The evaluation and comparison must include:

(a) The impacts to existing water, sanitary sewer, storm water and transportation facilities that serve nearby areas already inside the UGB;

(b) The capacity of existing public facilities and services to serve areas already inside the UGB as well as areas proposed for addition to the UGB; and

(c) The need for new transportation facilities, such as highways and other roadways, interchanges, arterials and collectors, additional travel lanes, other major improvements on existing roadways and, for urban areas of 25,000 or more, the provision of public transit service.

Stat. Auth.: ORS 197.040, Statewide Planning Goal 14
Stats. Implemented: ORS 195.036, 197.015, 197.295 - 197.314, 197.610 - 197.650, 197.764
Hist.: LCDD 8-2006, f. 10-19-06, cert. ef. 4-5-07; LCDD 2-2009, f. 4-8-09, cert. ef. 4-16-09

APPENDIX B:

City Attorney Memorandum Regarding Boundary Analysis and McMinnville Case (August 19, 2014)

CITY ATTORNEY MEMORANDUM

710 WALL STREET
PO BOX 431
BEND, OR 97709
[541] 693-2100 TEL
[541] 385-6675 FAX
www.ci.bend.or.us

To: UGB Boundary and Growth Scenarios Technical Advisory Committee

From: Mary Alice Winters, City Attorney

Subject: Boundary Analysis and McMinnville Case

Date: August 19, 2014

You asked for a legal analysis of the McMinnville case, *1000 Friends v. Land Conservation and Development Commission and City of McMinnville*, 244 Or App 239 (2011), and how it impacts the direction on the alternatives and boundary location analysis from the Land Conservation and Development Commission (LCDC) in the Remand Order. The decision has been posted on the City's UGB website, along with the Order Denying Reconsideration, the City of McMinnville's Motion for Reconsideration, the City of Bend's Amicus Brief, and the Response by 1000 Friends, for any of you who don't have enough to read already.

To summarize, the relevant issue in the case was how the priority statute, ORS 197.298, works in conjunction with the Goal 14 locational factors. As articulated by the Court, Petitioner 1000 Friends argued that the priority statute works to categorize land as available to meet broadly defined land use needs, and that higher priority land qualifies to meet that need unless urban services cannot be provided to the land because of physical constraints. Then, Goal 14 is applied to the prioritized and available land to determine specific growth areas.

According to Respondents, ORS 197.298 is applied to determine the adequacy of land for more particular land use needs; higher priority land qualifies, unless it is determined to be unsuitable under the Goal 14 locational factors and the Goal 2 exceptions factors. Goal 14 is then applied to corroborate the inclusion of higher priority land and to justify any further selection among land of a lower-priority class. *Id.* at 254.

The Court ultimately concluded that neither party had it quite right. It held that ORS 197.298 does provide "the first cut" in the sort process and Goal 14 is "then applied" to justify the inclusion and any remaining choices about what land to include in the boundary. The court did say that Goal 14 is used to determine the "adequacy" of land available under ORS 197.298(1), but in a more particular way than suggested by the City and LCDC. *Id.*

Goal 14 consists of seven factors that govern whether and where a UGB is expanded. Factors 1 and 2 determine whether a city **needs** to expands its UGB to accommodate growth, housing needs, employment opportunities, and livability.

Factors 3 through 7 apply to **location** of that expansion based on public facilities and services, efficiency of land uses, consequences of development, retention of land for farm use, and compatibility of development with nearby agricultural activities. Essentially, the court set out an analytical 3-step process for integrating Goal 14 and ORS 197.298.

In McMinnville, the court said that step 1 is to determine the land needed under ORS 197.298(1). The descending priorities of the statute are applied to determine whether priority land is "inadequate to accommodate the amount of land needed". That determination is made by the application of Goal 14, which provides that the "establishment and change of boundaries is based on a consideration of the following factors: (1) The demonstrated need to accommodate the long range urban population, consistent with the 20-year population forecast, and (2) Need for housing, employment opportunities, livability or uses such as public facilities, streets and roads, schools, parks or open space. If these needs cannot be met through the existing UGB through rezoning or infill, then the locality must amend its UGB to include sufficient buildable land to accommodate its housing and economic land needs. *Id*. at 256. Here, this latter determination will be based on the recommendation of the residential TAC, consistent with ORS 197.296 and the Remand Order. This first step is the analysis described by our consultants.
So far, so good.

Then in Step 2, the local government determines the adequacy of candidate lands under ORS 197.298 (1) and (3). The Court reasoned that only Goal 14 Factors 5 (Economic, energy, economic and social consequences, or ESEE) and 7 (compatibility with adjacent agriculture land) are applied to determine whether higher priority land "is inadequate to accommodate the amount of land needed" under ORS 197.298(1). In the court's view, the more restrictive priority exceptions in ORS 197.298(3) would be "meaningless surplusage" if the less restrictive Goal 14 factors 3, 5 and 6 are applied first. The key one in Bend is probably ORS 197.298(3)(b)—permitting an inadequacy conclusion only when public services cannot be extended because of topographic or physical constraints. Goal 14 Factor 3, which considers the relative cost of delivery of public services and facilities, cannot be considered at this step. The Court arguably altered the understanding of local government based on prior cases out of West Linn and the City of Adair in so holding. This was pointed out in the request for reconsideration, but that request was denied. This step is best viewed as a way to determine whether there is sufficient higher priority land to meet the City's needs identified in Step 1 and to disqualify unsuitable land (narrowly defined). It is not a step that qualifies lower priority land. The EESE contemplated at this stage, in our legal and planning view, is high level and general (not a project level EESE as done of for a Goal 3 or 4 exception analysis).

After a local government has prioritized lands under ORS 197.298 (1) and (3) and Goal 14 Factors 5 and 7, a new "Step Three" is added, during which the remaining factors of Goal 14 are applied to land so prioritized to include or exclude lands from the UGB. According to the Court, ORS 197.298 operates to "identify land that *could*

be added to the UGB to accommodate a needed type of land use," which Goal 14 is applied thereafter "to qualify land that, identified already under ORS 197.298, *should* be added to the Boundary." *Id*. at 265. The comparative EESE are also considered on an alternatives and more localized basis, as appropriate.

One point to keep in mind is that the Court was interpreting Goal 14 as it was drafted prior to April 28, 2005, as the rules allowed the City to apply the former version of the rule. 244 Or App at 239. The Goal 14 rule was amended by LCDC to "clarify the relationship between ORS and the locational factors of Goal 14 for urban growth boundary expansions." See Remand, page 125. However, the Goal 14 factors are essentially the same, albeit in a different order.[1] OAR 660-024-0060, adopted 10-5-06, further clarifies the process. However, without getting too nuanced, to the extent the new rule does not exactly track the process set forth in McMinnville, the Court of Appeals specifically interpreted the Goal in light of the Court's view of the statute and prior case law. Despite the City of McMinnville's argument that the application of the statute and Goal 14 was inconsistent with prior case law, the Court declined reconsideration and LCDC did not appeal the decision. Therefore, it is safest to follow the three-step process from the Court of Appeals. The concepts are all consistent with the Remand, the timing has the most room for interpretation.

In outline form, as confirmed by DLCD, the **suggested process to do a locational analysis based on current law/McMinnville decision** (as it applies to Bend) is as follows:

1. START WITH AMOUNT OF NEEDED LANDS
   A. Adopted Population Forecast
   B. Demonstrated need for housing, employment, public and semi-public uses
   C. Determine Study Area of Candidate Lands—Categorize lands under the four priorities of 197.298(1)
      a. EXCEPTION LANDS
      b. RESOURCE LAND – FURTHER SUBCATEGORIZED BY SOIL CLASS

2. FIRST PRIORITY FOR BEND: EXCEPTION LANDS. APPLY THE FOLLOWING FACTORS TO EXCLUDE (OR INCLUDE LOWER PRIORITY) LANDS FROM THE UGB:
   a. Exclude lands that are not buildable
   b. Exclude lands based upon specific land needs (197.298(3)(a))

[1] Statewide Planning Goal 14 (as amended April 28, 2005) requires the following:
"The location of the urban growth boundary and changes to the boundary shall be determined by evaluating alternative boundary locations consistent with ORS 197.298 and with consideration of the following factors:
(1) Efficient accommodation of identified land needs;
(2) Orderly and economic provision of public facilities and services;
(3) Comparative environmental, energy, economic and social consequences; and
(4) Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on far and forest land outside the UGB."

c. Exclude lands based upon inability to reasonably provide urban services due to physical constraints (197.298(3)(b))
d. Exclude lands based upon analysis of comparative ESEE consequences (Goal 14, Boundary Location, Factor 3)
e. Exclude lands based upon analysis of compatibility with agricultural & forest activities (Goal 14, Boundary Location, Factor 4)

QUESTION: Where are UGB Goal 14 Locational Factors 1 and 2?
ANSWER: According to "McMinnville" logic, they are redundant and less restrictive than two of the corresponding factors in ORS 197.298, and thus drop out at this stage of analysis.

3. A. IF THE AMOUNT OF LAND REMAINING AFTER EXCLUSIONS IS GREATER THAN THE AMOUNT OF NEEDED LANDS, THEN:

Apply the following factors INTERDEPENDENTLY to pick and choose among the land remaining after exclusions:

a. Efficient accommodation of identified land needs (Goal 14, Boundary Location, Factor 1)
b. Orderly and economic provision of services (Goal 14, Boundary Location, Factor 2)
c. Comparative ESEE consequences (Goal 14, Boundary Location, Factor 3)
d. Compatibility with agricultural and forest activities (Goal 14, Boundary Location, Factor 4)

B. IF THE AMOUNT OF LAND REMAINING AFTER EXCLUSIONS IS LESS THAN THE AMOUNT OF NEEDED LANDS, IN BEND GO TO FOURTH PRIORITY – RESOURCE LANDS

a. Repeat analysis under (2) above

The attached diagram prepared by ECONorthwest illustrates the steps in the UGB Alternatives Analysis Process as implied by the McMinnville decision and described in this memo.

APPENDIX C:

Suitability Criteria and Key Characteristics, Advantages and Disadvantages of Remaining Land

Memorandum

June 22, 2015

To:	Urban Growth Boundary and Growth Scenarios Technical Advisory Committee
Cc:	Urban Growth Boundary Steering Committee
From:	Angelo Planning Group Team
Re:	Suitability, Advantages and Disadvantages of Lands Advanced for Further Analysis

INTRODUCTION

This memorandum summarizes the suitability criteria used by the team in identifying appropriate locations for accommodating needed land uses and the advantages and disadvantages of the candidate Urban Growth Boundary (UGB) expansion areas.

SUITABILITY CRITERIA FOR NEEDED LAND USES

To date, the project team has not strictly applied specified characteristics that are necessary for land to be suitable for an identified need. Also, there has been general consensus that the identified needs for 2028 can be accommodated on priority exception lands. However, the participants in the scenario workshop did consider location criteria for particular uses in placing "chips" that approximated the land needs for industrial, commercial, residential and related park and school uses. These location criteria are summarized below.

Employment Uses

Large Lot Industrial

- Relatively flat, less than 5% slope
- Fewer parcels, very large ownerships
- Good access to state highway and/or arterials
- Compatible with adjacent uses

Industrial/Professional Office

- Relatively flat, less than 5% slope
- Fewer parcels, larger ownerships
- Good access to state highway and/or arterials
- Compatible with adjacent uses

Community Commercial Center

- Minimum 10 acres, typically 15+ acres
- Signalized access along a major street

- Highly visible location

Neighborhood Commercial Center

- Focal point for adjacent neighborhood
- Visible and accessible
- Typically along collector or similar street
- Pedestrian and bike friendly location

Residential Uses

Traditional Neighborhood

- Generally larger, vacant ownerships
- Generally flatter sites
- Opportunity for excellent connectivity
- Potential for transit
- Access to amenities to support higher density housing

Multi-Family Housing

- Best located near amenities such as transit, schools, and parks
- Can be concentrated in one area or spread among other housing types to create a diverse neighborhood

Suburban Single Family Neighborhood

- Lots up to about 5 acres
- Limited potential for improving connectivity in infill areas (new development can have good connectivity)
- Limited capacity for infill
- May be between UGB and vacant land to be urbanized

Open Space Neighborhood

- Natural resources within or adjacent to site
- Large enough to support cluster design

Large Lot Neighborhood

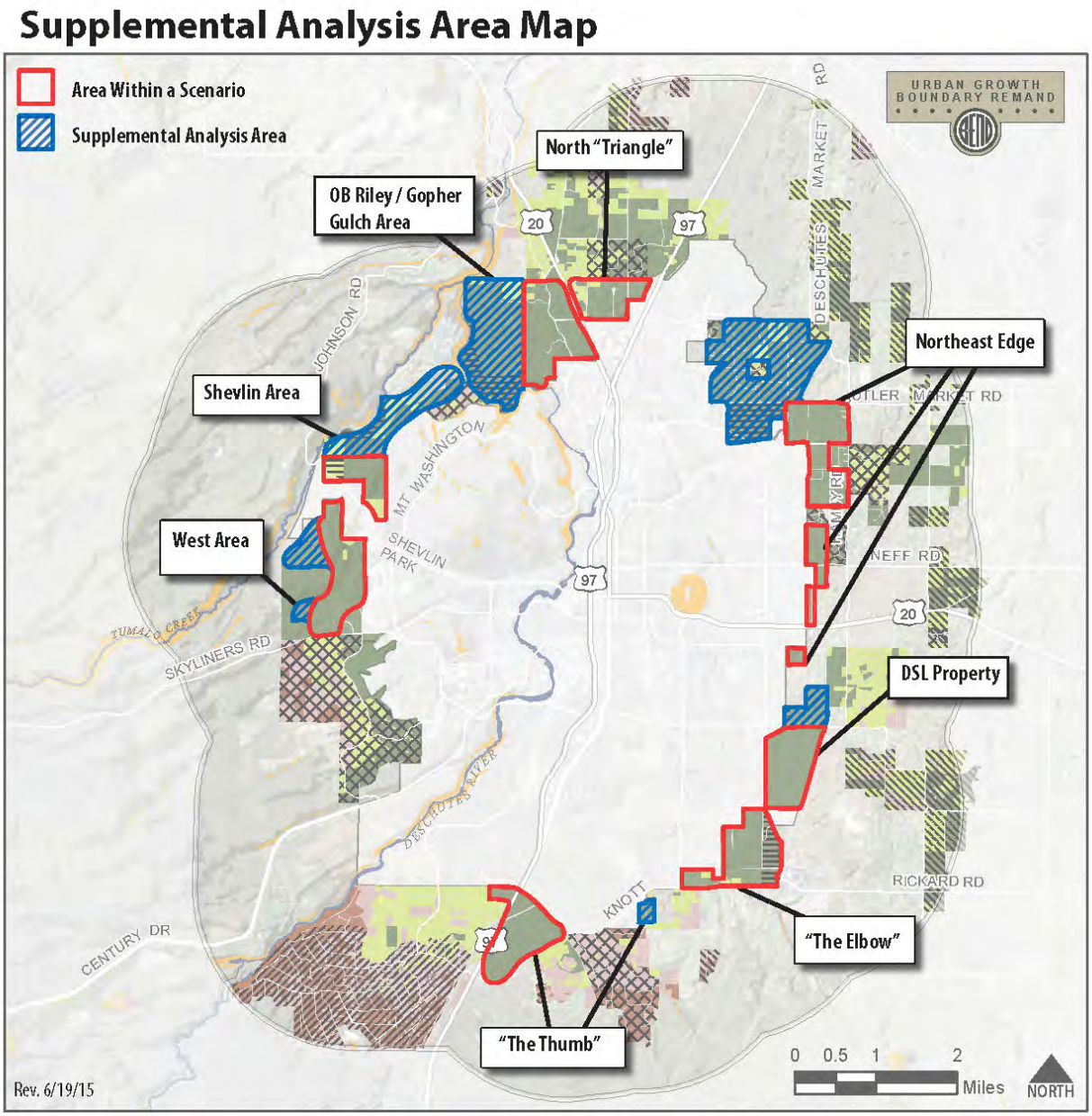
- Lots up to about 5 acres (e.g. developed originally as rural subdivision or resort)
- Limited potential for improving connectivity
- Limited capacity for infill
- May be between UGB and vacant land to be urbanized

In general, the suitability characteristics for employment land (and industrial uses in particular) are more specific. Guidance on suitability characteristics for employment land was derived from policies in Bend's General Plan, site criteria in the EOA, and input from the Employment TAC. Residential land needs are less tied to specific suitability characteristics.

SUITABILITY, ADVANTAGES & DISADVANTAGES BY SUBAREA

The project team has more thoroughly documented the suitability, advantages, and disadvantages of candidate UGB expansion areas, building on the "urban form considerations" articulated in the June 2, 2015 memorandum to the Boundary TAC. The subareas are shown on Figure 1. The discussion that follows addresses both land included within a scenario and Supplemental Analysis Areas. Where circumstances are not the same throughout a given subarea, this has been noted in the text.

Figure 1: UGB Expansion Analysis Subareas



West Area

The West Area is a transitional area between the existing UGB and the resource lands defined by Tumalo Creek and Deschutes National Forest.[1] The area is adjacent to existing schools and Northwest Crossing inside the UGB.

Suitability

The area has relatively good connectivity to the western part of the city, but lacks major highway connections to other parts of the city and region - making it more suitable for residential and mixed use development and less suitable for office and industrial use. Being a large, vacant ownership, it has potential for traditional neighborhood development with a mix of housing types and good connectivity in flatter and closer-in areas. It will have natural amenities, being located near National Forest and open space, which would make it potentially suitable for multi-family housing. Because of adjacent resource areas, the outer portions may be most appropriate for cluster housing that preserves extra open space. Because it is near the urban/rural edge, fire risk mitigation strategies may be needed.

Advantages

- Large, undeveloped parcels with few owners (Factor 1)
- Few development constraints on most of site (Factor 1)
- Opportunities to master plan complete neighborhoods/communities (Factor 1)
- Contiguous with existing UGB at east and north edges (Factor 1)
- Largely serviceable by gravity from Bend water system (Factor 2)
- Generally rated good for connectivity to complete roadway grid and not relying on congested corridor (Factor 2)
- Proximity to natural amenities such as Shevlin Park and Phil's Trail system (Factor 3)
- Proximity to existing schools, particularly in SE quadrant (Factor 3)
- No impacts on irrigation districts in west area (Factor 4)

Disadvantages

- Steeper topography at west edge closer to Tumalo Creek (Factor 1)
- At the westerly edge, closer proximity to natural resource area, including deer winter range, Tumalo Creek and forest lands (Factor 3)
- Community concerns regarding higher relative fire risk to the west (Factor 3)
- Closer proximity to Deschutes National Forest to the west; however, Cascade Highlands and Tetherow are already developed to that edge (Factor 4)

[1] A rural cluster subdivision is currently under review between the expansion area considered by the TAC and the resource lands described.

Shevlin Area

The Shevlin area is bounded to the northwest by Tumalo Creek, a physical barrier that is likely to be a “hard edge” to the city’s urban form for the long term. The other edges are contiguous to the current UGB and existing neighborhoods.

Suitability

The area has moderate connectivity to the western part of the city, but lacks major highway connections to other parts of the city and region, making it more suitable for residential and mixed use development or small office/flex us, but less suitable for major office or industrial use. It is a large, mostly vacant site that gives it some potential for traditional neighborhood development on the southern end. The elongated shape of the northern portion and its proximity to Tumalo Creek makes that area more suitable for cluster housing to preserve extra open space. It will have natural amenities, being located near natural resources, which would make it potentially suitable for limited amounts of multi-family housing. Because it is near the urban/rural edge, fire risk mitigation strategies may be needed.

Advantages

- Large, undeveloped parcels with few owners (Factor 1)
- Opportunities to master plan complete neighborhoods/communities (Factor 1)
- Contiguous with existing UGB along southerly edge (Factor 1)
- Serviceable by gravity from Bend water system (Factor 2)
- Rated good for not relying on congested corridor
- Proximity to natural amenities such as Shevlin Park and trail system (Factor 3)
- No impacts on irrigation districts in the Shevlin area (Factor 4)

Disadvantages

- Steeper topography along Tumalo Creek (Factor 1)
- Physical barriers to connectivity across Deschutes River & Tumalo Creek, if needed for urbanization (Factor 2)
- At northwesterly edge, close proximity to Tumalo Creek and multiple resource values, including riparian, deer winter range, scenic, etc. (Factor 3)
- Possible constraints with near-term wastewater service (needs further analysis)

OB Riley/Gopher Gulch Area

This area is bounded to the east by Highway 20 and to the west/south by the Deschutes River and Archie Briggs Canyon Open Space.

Suitability

The presence of Highway 20 and the intersection at Cooley Road drive the land use pattern on the east side of this area, where employment uses are suitable. The eastern portion of this area is also adjacent to the existing employment area in the north of Bend (the “Triangle”). There are several large lots in this area near the Cooley Road access to US 20 that may provide an opportunity for large lot industrial development, though some are oddly shaped.

West of Cooley Road are medium-sized (mostly five- to 20-acre) rural residential properties that are most suitable for suburban single family neighborhoods and large lot neighborhoods on the southern end, closest to the existing UGB where existing lot sizes are smaller. The larger properties further north are suitable for a wider range of uses, including traditional neighborhoods and local-serving commercial uses.

The westernmost portion of this subarea ("Gopher Gulch") is most suitable for residential uses due to its distance from major roads, beautiful setting and proximity to natural areas. Because of the large parcel size and undeveloped state, it has potential for traditional neighborhood development and, with potential for access to natural amenities and local-serving commercial, may be an appropriate site for multifamily housing. Because it is near the urban/rural edge, fire risk mitigation strategies may be needed.

Advantages

- Large, undeveloped parcels with few owners in the westerly portion of the area (Factor 1)
- Opportunities to master plan complete neighborhoods/communities (Factor 1)
- Generally few development constraints (Factor 1)
- Contiguous with existing UGB along southerly edge (Factor 1)
- Serviceable by gravity from Bend water system (Factor 2)
- Minimal barriers to transportation connectivity and minimal reliance on congested corridors (Factor 2)
- Good potential for wastewater service for easterly half of area abutting Hwy 20 (Factor 2)
- Proximity to natural amenities, including Deschutes River and park/natural areas (Factor 3)

Disadvantages

- Greater fragmentation, high improvement to land value ratios in southeast portion of area closer to Hwy 20 (Factor 1)
- Steeper topography along Deschutes River on the west (Factor 1)
- Westerly area closer to the river rated fair for wastewater service (Factor 2)
- Area more than ½ mile from existing schools (Factor 3)
- Swalley Irrigation District concerns with financial/operation impacts of urbanization (Factors 3 & 4)
- Closer proximity to irrigated EFU lands north of Cooley Road (Factor 4)

North "Triangle"

This subarea is located between Highway 97 and Highway 20, north of Cooley Road. To the north is a rural subdivision with covenants, conditions, and restrictions (CC&Rs).

Suitability

Excellent highway access and proximity to significant employment inside the UGB make this area a clear candidate for additional employment uses. It would also be suitable for medium to high density residential use in combination with a commercial center.

The western portion of the triangle (particularly west of Scenic Drive) is somewhat parcelized, with lots generally under five acres. This area is more suitable for suburban single family residential or small-scale employment uses. In addition, the northern edge, where it abuts rural subdivisions, may require some considerations for compatibility with the adjacent residential uses, making it less suitable for heavy industrial uses and high density multifamily housing.

Advantages

- Several contiguous large parcels (+20 acres) in proximity to existing UGB (Factor 1)
- Generally flat topography (Factor 1)
- Ranked with good connectivity to complete roadway grid (Factor 2)
- Serviceable by gravity from Bend water system (Factor 2)
- Ranked good for wastewater potential (Factor 2)
- No designated Significant Goal 5 resources in North Triangle (Factor 3)
- Triangle area more distant from forest and high-value EFU lands (Factor 4)

Disadvantages

- Moderate barriers to transportation connectivity (Factor 2)
- Easterly portion of North Triangle more reliant on congested transportation corridors (Factor 2)
- North Triangle area more the ½ mile from existing schools and parks (Factor 3)

Northeast Edge

This area is generally bounded by the current UGB to the west and Hamby Road and/or resource land to the east. It includes pockets of land from Stevens Road on the south to Margaret Road on the north. It encompasses “Butler Market Village”, the rural residential subdivisions between Yeoman Road and Margaret Road, the exception land between Eagle Road and Hamby road north of US 20 (except for the rural subdivisions in that area, which have been removed from the analysis), and two blocks of exception land between Bear Creek Road and Stevens Road.

Suitability

Areas with little existing development would be suitable for suburban single family neighborhoods. Small commercial areas may be appropriate along Butler Market Road, Neff Road, Bear Creek Road, and/or Stevens Road, and could potentially serve existing neighborhoods inside the UGB. The outer edge of this area abuts resource land, making compatibility a consideration for the western edge. More heavily developed areas, such as the

rural residential subdivisions between Yeoman Road and Margaret Road, may be suitable for limited amounts of large lot residential development, but little else.

Advantages

- Multiple parcels contiguous to existing UGB on the west (Factor 1)
- Generally flat topography (Factor 1)
- Scattered parcels 5-10 acres and larger; diversity of options for smaller builders (Factor 1)
- No physical barriers to transportation connectivity and minimal reliance on congested corridors (Factor 2)
- Serviceable by Avion Water Company (Factor 2)
- Ranked good for wastewater potential (Factor 2)
- No designated Significant Goal 5 resources in Northeast Edge (Factor 3)
- Within ¼ to ½ mile of existing parks (Factor 3)
- Portions of NE Edge in proximity to existing schools (Factor 3)

Disadvantages

- More parcelized area mixed with pockets of development (Factor 1)
- Some small subdivisions with CC&Rs with limited capacity for development (Factor 1)
- Fair connectivity to complete roadway grid (Factor 2)

DSL Property

This large, vacant site is bounded to the west by 27th Street and to the north by Stevens Road. The eastern edge of the exception area is formed by a major utility easement; past the easement is still DSL property, but it is designated as resource land. To the south lie the Humane Society and County public works buildings.

Suitability

The north and west edges are potentially suitable for retail areas due to this visibility and potential for relatively large customer base with a half-mile radius. The southern edge is potentially suitable for other employment uses; it has access to 27th Street / Knott Road, which provides access to Highway 20 and Highway 97, though it is not directly adjacent to either highway. Its large size, flat topography, and lack of current development as well as the moderate transportation access make it a possibility to consider for large lot industrial use, though it may not have adequate access to major roads.

The interior of the property is most suitable for residential uses, with natural area protection for habitat areas. The size and undeveloped nature of the property make it suitable for traditional neighborhood development. If designed appropriately and located near parks and commercial

areas, it is suitable for multifamily housing. Because it is near the urban/rural edge, fire risk mitigation strategies may be needed.

Advantages

- Large, undeveloped parcel in state ownership (Factor 1)
- Opportunities to master plan complete neighborhood/community (Factor 1)
- Generally level topography (Factor 1)
- Contiguous to UGB along west edge (Factor 1)
- Minimal barriers to transportation connectivity and minimal reliance on congested corridors (Factor 2)
- Serviceable by Avion Water Company (Factor 2)
- Good potential for wastewater service based on existing information (Factor 2)
- No significant Goal 5 resources in proximity to DSL property (Factor 3)
- Within ¼ mile of existing park (Factor 3)
- Not adjacent to irrigated, high value EFU parcels (Factor 4)

Disadvantages

- Presence of bat caves on property – protection could slightly reduce the buildable acres on property; caves could be incorporated into park/open space (Factor 3)

The "Elbow"

This area is adjacent to an opportunity area inside the UGB identified for significant new residential development. 27th Street / Knott Road forms the eastern and southern edges of this area. On the far side of 27th Street / Knott Road are resource lands and a county landfill. An existing school and undeveloped park land lie along the west side of 27th Street. There is little other existing development in this area – a few businesses and a handful of homes.

Suitability

27th Street / Knott Road provide easy access to Highway 97 to the south, making this area a candidate for a variety of employment uses. It is adjacent to residential areas inside the current UGB, and could also be suitable for a variety of residential uses, including traditional neighborhoods on the larger properties and multifamily housing if sited near amenities. Because it is near the urban/rural edge, fire risk mitigation strategies may be needed.

Advantages

- Relatively large parcels (generally +10 acres), including some with minimal to no improvements (Factor 1)
- Opportunities to master plan (Factor 1)
- Generally level topography (Factor 1)
- Contiguous to the UGB along west edge (Factor 1)
- Few barriers to transportation connectivity and minimal reliance on congested corridors (Factor 2)
- Serviceable by Avion Water Company (Factor 2)
- Rated good for wastewater service – proximity to SE interceptor (Factor 2)
- Close proximity to existing school and park-owned land (Factor 3)

Disadvantages

- Some smaller parcels and higher value improvements interspersed with larger parcels (Factor 1)
- Proximity to landfill and mining site (Factor 3)
- Proximity to high-value irrigated lands south of Rickard/Knott (Factor 4)

The "Thumb" and surrounding properties

"The Thumb" (the Ward property), has two access points to Highway 97: via Knott Road with a full access interchange and via China Hat Road, which is "Right-In Right-Out" only. The northwest corner of the Ward property is bisected by a railroad right-of-way. This is the site of the "Old Back Nine" golf course, and there is no existing development. To the northeast, across China Hat Road, are residential subdivisions and a golf course; to the south, across Knott Road, are resource land and another golf course subdivision; to the west, across Highway 97, is Deschutes River Woods. The property serves as part of the southern gateway to Bend.

This subarea also includes the "Baney" property, which lies west of Highway 97 and just south of the existing UGB, and property owned by the SJR Trust along Woodside Road south of Knott Road and adjacent to the existing UGB (shown in blue on Figure 1).

Suitability

The full interchange makes the Ward property suitable for employment uses. Its easy access to and visibility from Highway 97 makes it suitable for large-scale commercial or industrial uses. At 300+ acres, there is opportunity for a wide range of uses, including traditional neighborhood residential development. The northeastern side abuts existing residential areas; this portion may be more suitable for residential development or local-serving commercial.

The Baney property has only right-in/right-out access to Highway 97 via Ponderosa Street, which makes it less suitable for large-scale employment uses, though a limited amount of commercial development may be appropriate. It abuts existing subdivisions to the north and rural residential areas to the south, making it potentially suitable for residential uses.

The SJR Trust property on Woodside Road is about 25 acres that is bisected by an existing street. It is adjacent to existing subdivisions and a surface mine. With indirect access to major roads and little visibility, it is primarily appropriate for residential uses, though buffers may be needed for the adjacent mine site.

Advantages

- Medium to large, mostly undeveloped parcels with single owner (Factor 1)
- Generally level topography (Factor 1)
- Opportunities to master plan larger properties (Factor 1)
- Contiguous with existing UGB (Factor 1)
- Minimal barriers to transportation connectivity and minimal reliance on congested corridor east of Highway 97 (Factor 2)
- Not located in close proximity to Forest or High Value EFU zoned land (Factor 4)

Disadvantages

- May require pumping by Avion to serve with water (Factor 2)
- Moderate barriers to transportation connectivity for Baney property (Factor 2)
- Proximity to Drinking Water Protection Areas (DWPA) (Factor 3)
- Located more than ½ mile from existing schools & parks (Factor 3)
- SJR Trust property within Surface Mining Impact Area (Factor 3)

.

APPENDIX D:

Table 1 Goal 14 Factors (Stage 2 indicators and Stage 4 performance measures)

Table 1. Goal 14 Factors

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
Factor 1: Efficient accommodation of identified land needs	
Analysis Tool: GIS • Parcel size • Improvement to land value ratio • Proximity to existing UGB – adjacency more efficient than edge of study area • Topography (25% slopes or greater) • Existing CC&Rs prohibit or limit additional development *See Factor 1 Maps*	**Analysis Tool: Envision** • Urbanized acres • New housing units built inside vs. outside existing UGB in 2028 (# and %) • New jobs located inside vs. outside existing UGB in 2028 (# and %) • Estimated average density for housing and jobs in 2028 (units/acre and jobs/acre – measure for entire scenario and associated UGB expansion area) • Percent of new growth accommodated through infill/redevelopment by scenario
Factor 2: Orderly and economic provision of public facilities and services	
Transportation	
Analysis Tools: GIS & existing transportation modeling data • **Barriers**: Consideration of physical barriers to connectivity (new river crossings, railroad crossings, steep slopes, etc.). • **Reliance on Congested Corridors:** Consideration of key congested highway corridors based on the recently completed Bend MPO MTP. Using the Bend 2040 travel demand model, identify which exception lands have a higher reliance on a congested corridor. • **System Connectivity**: Consideration of whether the existing major roadway network meets ideal grid-spacing (e.g.,	**Analysis Tool: Envision** • VMT/capita • VMT/facility type (including trip-type) • Mode split • Housing & jobs within ¼ mile of transit corridors (# and %) • Intersection density • # of new lane miles • Rough costs for transportation improvements ($ per lineal foot) by scenario • Roll up of cost per acre for UGB expansion area associated with each scenario **Analysis Tool: Travel Demand Model**

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
one-mile spacing for arterials and half-mile spacing for collectors). Rank exception areas with a more subjective approach based on ability to extend collectors into the study area. Also consider if subareas in the study area are adjacent or near well connected streets inside the current UGB. *See Factor 2 Maps for Transportation*	• Scenario balances VMT between highway and other street classifications and between trip types (local, city-wide, regional) • Scenario supports system that provides logical connections and progression of system hierarchy (local street – collector – arterial – highway) • Scenario balances flow across available facilities and improves utilization of under-capacity roadways (congestion analysis) • Scenario better balances number of system lane miles for both state and local system • Scenario improves grid system for pedestrian/bicycle travel • Scenario supports efficient transit corridors • More detailed types and costs of transportation improvements including the need for new transportation facilities, such as highways and other roadways, interchanges, arterials and collectors, additional travel lanes, other major improvements (identified by scenario and UGB expansion area associated with each scenario)
Water	
Analysis Tool: GIS & existing water system master plan information • **Gravity system (City of Bend)**: Consideration of exception areas that could be served by gravity by City of Bend	**Analysis Tool: Envision** • Acres served by gravity system by scenario • Rough costs for water improvements ($ per lineal foot) by scenario • Roll up of cost per acre for UGB expansion area associated with each

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
See Factor 2 Map for Water • **Pressure zones:** Consideration of pressure zones with existing water storage capacity. *The project team has concluded that it is not feasible to rank exception areas based on pressure zones in the Stage 2 mapping. However, this will be considered in the Stage 4 scenario evaluation for water facilities.*	scenario **Analysis Tool: Optimization** • New housing units & jobs (# and %) within pressure zones with storage by scenario • Additional water storage facilities required by scenario • More detailed types and costs of water system improvements by scenario – along with roll up as cost per acre for expansion area associated with each scenario
Sanitary Sewer	
Analysis Tool: GIS & existing sewer system master plan information • **Gravity system**: Consideration of areas that can be served via gravity. This would be illustrated with a map showing areas in the study area that can be served with gravity sewer vs. areas requiring additional pumping. • **Maximize existing/planned improvements**: Consideration of areas with capacity or planned short-term improvements. This would be illustrated with a map showing any areas in the study area outside the current UGB that could be served with sewer without major new investments in addition to planned facilities in the Collection System PFP. *See Sanitary Sewer Map*	**Analysis Tool: Envision** • Acres served by gravity system by scenario • Rough costs for sewer improvements ($ per lineal foot) by scenario • Roll up of cost per acre for UGB expansion area associated with each scenario **Analysis Tool: Optimization** • Number of existing pump stations removed by scenario • More detailed types and costs of sewer system improvements by scenario – along with roll up as cost per acre for expansion area associated with each scenario

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	Stage 4 – Scenario Evaluation Purpose: Evaluate alternative scenarios based on proposed **performance measures**
Stormwater	
Analysis Tool: GIS and existing stormwater master plan information • **Drinking water protection areas**: Consider proximity to drinking water protection areas (DWPA) • **Surface geology**: Consider presence of surface geology (welded tuff) that limits on-site stormwater management. *See Factor 2 Maps for Stormwater* • **Water quality limited streams**: Consider proximity to water quality limited streams. This could be illustrated by a map showing areas outside the UGB inside the study area that drain to Tumalo Creek and the Deschutes River. *The project team/TAC recommends consideration of this indicator under Factor 3 base mapping.*	**Analysis Tool: Envision** • Acres of new development within DWPA by scenario • Acres of scenario with welded tuff geology • Acres of scenario draining to water quality limited streams
Factor 3: Comparative environmental, social, economic and energy consequences (ESEE)	
Analysis Tool: GIS • Presence of significant Goal 5 resources or other resources (consider Greenprint mapping or other data sources) • Relative wildfire risk and presence of other natural hazards (floodplains) • Proximity to existing or planned parks, trails, elementary schools • Proximity to irrigation districts, irrigated lands and canals in study area	**Analysis Tool: Envision** • Development (acres, number of housing units, number of jobs) in areas where Goal 5 resources are present • Development and cost (acres, number of housing units, number of jobs) in Goal 7 hazard prone areas • Housing units within walking distance of existing/planned elementary schools, parks and trails in 2028 (# and % of total units)

Stage 2 – Base Mapping Purpose: Prioritize exception lands within Study Area based on proposed **key indicators**	**Stage 4 – Scenario Evaluation** Purpose: Evaluate alternative scenarios based on proposed **performance measures**
• Presence of water quality limited streams (303d) in study area	• Housing mix & affordability by income level • Jobs housing balance (by TAZ or quadrant) • Greenhouse gas emissions • Total impervious surface area • % of job growth in downtown Bend
Factor 4: Compatibility of proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB	
Analysis Tool: GIS • Proximity to designated forest land • Proximity to designated high-value agricultural land (irrigated) *See Factor 4 Maps*	**Analysis Tool: Envision** • Perimeter of proposed UGB in proximity to designated forest land (lineal feet/miles) relative to existing UGB • Perimeter of proposed UGB in proximity to designated high-value agricultural land (lineal feet/miles) relative to existing UGB • Designated forest or agricultural land included in scenario, if any (acres)

APPENDIX E:

Comment Log of Public Testimony

Appendix E: Comment Log of Public Testimony

June 19, 2015

Source of Comment	Summary of Comment	Project Team Response
Curt Baney, letter dated 6/5/15	Consider including 38 acres (RR-10 exception land) abutting the south side of the UGB and the west side of Hwy 97 in the UGB for a mixed use project. The property scored well in the Stage 2 mapping.	38 acre property included in Scenario 2.1
Carl Hopp, Attorney for Pac West Development, LLC, letter dated 6/8/15	Consider including 36.39 acre lot at 21455 East Hwy 20 (a small portion of which is UAR-10 exception land, the remainder being EFU land) in the UGB. Client is ready to move forward with development of affordable housing.	The project team does not recommend including resource land in any of the UGB scenarios because there is more than enough suitable priority exception land available to meet identified land needs to 2028.
David Peterson, Attorney for Summit Accommodators Liquidating Trust, letter dated 4/30/15 with attachments	Consider including 33.8 acres of land (EFU) located at 63210 Cole Road, northeast of Bend, in the UGB. Keep open mind about potential suitability of resource-zoned land for the UGB expansion.	The project team does not recommend including resource land in any of the UGB scenarios because there is more than enough suitable priority exception land available to meet identified land needs to 2028.

Source of Comment	Summary of Comment	Project Team Response
Rick Lane, John & Beth Short, Drew Bledsoe, emails dated 6/8/15, 6/9/15 and 6/10/15	Group of property owners requests inclusion of 240-acre “Butler Market Village” study area (exception lands) in the UGB.	240 acre “Butler Market Village” study area included in Scenario 1.1
Tia Lewis for Coats Revocable Trust, letter dated 6/8/15	Tia presented written and oral testimony. The Coats family seeks to have approximately 416 acres of its land together with the 33 acres owned by the School District included in the UGB for urban development for mixed uses shown on Exhibit A map (UAR exception lands).	Approximately 165 acres included in Scenario 3.1, with balance of 416 acres included in Supplemental Analysis Area for infrastructure modeling.
Steve Shropshire, attorney representing Swalley Irrigation District, letter dated 6/1/15 and PPT presentation	Provided short presentation on the concerns of SID. SID uses a hub and spoke system to deliver water. The biggest concerns for the district are coordination, financial and operational impacts on the delivery system going north from Bend.	Scenarios 1.1, 1.2 and 1.3 propose variable acres for expansion north of the UGB. The project team will continue to coordinate with Swalley and other irrigation districts to evaluate the impacts of the UGB scenarios under Factors 3 & 4 of Goal 14.

Source of Comment	Summary of Comment	Project Team Response
Myles Conway, representing Rio Lobo, oral testimony on 6/9/15	Presented oral testimony regarding Rio Lobo ownership of 374 acres south of Shevlin Park Road zoned UAR. He recommended consideration of all highest-quartile dark green land.	Scenario 3.1 includes approximately 160 acres of Rio Lobo ownership west and south of the existing UGB. The remainder of the 374 acres are included in the Supplemental Analysis Area.
Ed Elkins, oral testimony on 6/9/15	Ed identified himself as the owner of Gopher Gulch Ranch (north of existing UGB and east of Deschutes River) and provided oral testimony. He questioned how properties were rated in the Stage 2 mapping and recommended documenting how statutory requirements are being met.	Scenario 3.1 includes lands just east of the Gopher Gulch area, but does not include lands listed as under ownership of Ed Elkins. The 371 acres of Gopher Gulch are included in the Supplemental Analysis Area.
Joe Emerson, oral testimony on 6/9/15	Joe provided oral testimony and commented that the principal of high fire risk around the UGB is not a good one. He cited the Two Bulls fire as an example of a fire that is very different from a grass fire.	The project team will be drawing on the on-site assessments of proposed UGB scenario lands by a group of fire experts (including Bend Fire Chief, County Forester, fire managers with USFS, BLM). The site visits will include consideration of variables of topography, fuel types, and management activities on lands within ¼ mile. The project team will incorporate the site-specific assessments into the Goal 14 (Factor 3) evaluation of scenarios.
Wayne Purcell, oral testimony on 6/9/15	Wayne provided oral testimony. He commented that consideration of larger expansion to the NE could help meet need for affordable housing. He thought the scenarios involved too many large parcels – too many “eggs in one basket.”	Scenario 1.1 focuses on a larger proposed expansion in the “northeast edge” subarea.

Source of Comment	Summary of Comment	Project Team Response
Steve Jorgensen, representing BMPRD, oral testimony on 6/9/15	Steve presented oral testimony and commented that the TAC should look for opportunities for trail connections. He specifically referenced the 1995 Trails Plan that identified potential trails on the Coats' property that were very important from the District's perspective. He also noted that the district requests that the park-owned site in "the Elbow" be included in the UGB so it can be traded for other lands that are better suited or needed for a park.	The park-owned site in "the Elbow" is included in Scenario 2.1, and for modeling purposes it is assumed to have non-park uses. Portions of the Coats property are included in Scenario 3.1, with the full concept plan area extending to the creek and river included in the Supplemental Analysis Area.
Tim Elliott, representing Anderson Ranch, oral testimony on 6/9/15	Commented on the Goal 14 analysis. Land priority issue a primary issue on remand. Consider the first priority lands first.	Roughly 15 acres of Anderson Ranch (in the West Area) is included in Scenario 1.1, and the full site (roughly 28 acres) is included in Scenario 3.1.

APPENDIX F:

UGB Expansion Scenario Assumptions and Development Type Details

Memorandum

June 19, 2015

To: Urban Growth Boundary and Growth Scenarios Technical Advisory Committee
Cc: Project Team
From: Angelo Planning Group Team
Re: UGB Expansion Scenario Assumptions and Development Type Details

OVERVIEW

Development Types

The Urban Growth Boundary (UGB) Expansion scenarios were created using "development types" that generally represent Bend's General Plan designations. The development types contain various assumptions calibrated by the project team with the best available information and with Technical Advisory Committee (TAC) direction at various stages. Development type assumptions include:

- A mix of specific building types (using prototype buildings reviewed by the Residential and Employment TACs in August, 2014)
- Parking requirements
- Streets, neighborhood parks, and other set-asides
- Net residential density and net job density
- Rate of redevelopment

Development types were first calibrated to observed densities and land use mix in Bend's general plan designations to create the "Base Case" scenario, and then modified as needed to reflect the estimated effects of proposed efficiency measures. These modifications were documented Residential TAC and Employment TAC meetings during Phase 1 of the project, and will continue to be evaluated as committees further examine efficiency measures in Phase 2.

Development types are assigned to lands through "painting" the map. It is important to understand, however, that the analysis is not parcel specific; it does not predict precisely what would occur on a given property. Rather, the weighted averages from the development type are applied to the parcels being painted. This allows the model to do a better job of realizing the variations that happen in the real world based on factors such as developer preference, lot shape, access, views, and neighborhood compatibility. Each buildable acre of land where a development type is applied is assigned a percentage of each of the building types as well as the specified percentage set asides that comprise the development type.

Envision Tomorrow does not predict the timing of this development. In essence, it provides a snapshot of potential development projected to occur during the planning period.

Buildable Land

The scenarios take into account development constraints and existing development outside the UGB. Development constraints include:

- Floodplains
- Slopes over 25%
- Current surface mining permits
- Parks/school district ownership
- Existing development

For those parcels with existing development, a quarter of an acre per lot was identified as developed, with the remainder considered vacant and buildable.

The buildable land inside the UGB was identified as described in the February 6, 2015 memorandum titled “Draft Bend UGB Buildable Lands Inventory” that was distributed to the Residential TAC.

Lands identified as having development constraints do not generate growth in the model, even if they are painted with a development type; the constrained area is removed from the buildable land to which development assumptions are applied.

DEVELOPMENT TYPE DESCRIPTIONS

Name	Description	Residential Mix	Employment Mix	Res/Emp Density[1]	Additional Information
RL	Low Density Residential	Mostly large lot single family, small amount of duplex	None	~2 units/net acre	Reflects possible efficiency measures related to duplex/triplex
RS	Std. Density Residential	Mostly single family, various lot sizes; small amount of duplex/triplex and cottage homes	Tiny bit of office	~7 units/net acre	Reflects possible efficiency measures related to cottage homes, duplex/triplex and ADUs
RS Hillside	Std Density Residential – Clustered Development	Mostly single family, various lot sizes; small amount of duplex/triplex and townhomes	Tiny bit of office	~3 units/net acre	Used where topography or other conditions may limit density to the lower end of the allowed range, rather than the average
RS Master-plan	RS for large master-planned areas	Mostly single family, various lot sizes but emphasizing small lots; small amount of duplex/triplex and townhomes	Tiny bit of office	~8 units/net acre	Reflects possible efficiency measures affecting master plan requirements for large sites (over 20 acres)
RS-CCR	RS with Development Restrictions	All single family	None	~2 units/net acre	A designation for platted lots covered by CC&Rs that limit lot divisions to ensure just one unit per lot is projected
RM	Medium Density Residential	Mix of small-lot single family detached, single family attached, and multifamily housing	Small amount of retail and office	~15 units/net acre	Reflects possible efficiency measures related to lot dimensions, setbacks, and cluster housing
RM Master-plan	RM for large master-planned areas	Mix of small-lot single family detached, single family attached, and multifamily housing	Tiny bit of office	~21 units/net acre	Reflects possible efficiency measures affecting master plan requirements for large sites (over 20 acres)

[1] Densities are approximate and subject to change with refinement of efficiency measures.

Name	Description	Residential Mix	Employment Mix	Res/Emp Density[1]	Additional Information
RH	High Density Residential	Mostly multifamily with some single family attached	Small amount of retail and office	~28 units/net acre	Reflects possible efficiency measures including prohibiting new single family detached housing and adjustments to setback and coverage requirements
MDOZ	Medical District Overlay Zone	Some multifamily housing	Primarily office (includes medical)	~22 jobs/net acre	Captures mix of uses allowed by the MDOZ
CC	Convenience Commercial	None	Mix of retail and office plus a tiny amount of industrial	~16 jobs/net acre	Generally intended for community-serving commercial areas adjacent to residential areas
CC2	"Walkable" Convenience Commercial	None	Mix of retail and office	~22 jobs/net acre	A more dense and walkable version of the Convenience Commercial (CC) designation; reflects possible efficiency measures reducing parking ratios for certain uses
CL	Limited Commercial	Tiny amount of multifamily housing	Mix of retail and office plus a tiny amount of industrial	~20 jobs/net acre	Intended for uses serving tourists as well as residents, along highways and in new commercial centers
CG	General Commercial	Tiny amount of multifamily housing	Primarily retail with some office and a tiny amount of industrial	~13 jobs/net acre	Intended for larger sites along major roads and businesses with a larger service area
CB	Central Business District	Tiny amount of multifamily housing	Primarily office with significant retail and some public employment	~118 jobs/net acre	Intended for the downtown with storefront/mixed use character; reflects possible efficiency measures including increasing building heights

Name	Description	Residential Mix	Employment Mix	Res/Emp Density[1]	Additional Information
MR	Mixed Riverfront	Small amount of single family and multifamily housing	Primarily office with some retail and industrial	~16 jobs/net acre	Intended for creative redevelopment of mill site properties adjacent to the Deschutes River; reflects possible efficiency measures reducing parking ratios for certain uses
MU1	Neighborhood Mixed Use	Mostly multifamily housing, some single family attached	Mix of retail and office	~18 units/net acre + ~33 jobs/net acre	New neighborhood-scale mixed use development type – relationship to existing plan designations TBD
MU2a	Urban Mixed Use	Mostly multifamily housing, some single family attached	Mix of retail and office	~46 units/net acre + ~37 jobs/net acre	New urban-scale mixed use development type – relationship to existing plan designations TBD
ME	Mixed Employment	None	Mostly office and industrial with some retail	~12 jobs/net acre	Intended to provide a broad mix of uses that offer a variety of employment opportunities
IP	Industrial Park	None	Mix of industrial and office	~25 jobs/net acre	Does not exist as a zone (only a plan designation)
IL	Industrial Light	None	Mix of industrial and office with a small retail component	~11 jobs/net acre	Intended to provide for heavier commercial and light industrial uses with easy access to collector and arterial streets
IG	Industrial General	None	Primarily industrial with some office and a small retail component	~16 jobs/net acre	Intended for light and heavier industrial uses
LL Indust-rial	Large Lot Industrial	None	N/A[2]	N/A	Special designation to protect land for large lot industrial uses (50+ acre sites) to meet the identified special site need

[2] Large lot industrial users are anticipated to be targeted sector major employers, outside the employment forecast need. This was treated as a special site need rather than being part of the employment projections.

Name	Description	Residential Mix	Employment Mix	Res/Emp Density[1]	Additional Information
PF	Public Facilities	None	Primarily public with tiny amounts of retail and office	~14 jobs/net acre	Intended to provide area for buildings and facilities that are publicly owned and operated
Inst	Institutional	None[3]	Public[4]	~25 jobs/net acre	Intended to reflect COCC campus
Univ	University	N/A[5]	N/A[6]	N/A	Intended to reflect planned university campus – OSU Cascades
School	Public Schools	None	N/A[7]	N/A	Used to identify existing and potential future public K-12 school facilities (not including administrative buildings)
Park	Community Parks	None	None	N/A	Identifies planned or potential future community parks

[3] Assumes no increase in student housing at COCC.

[4] Growth in employment at the existing COCC campus is counted as part of the public job employment forecast.

[5] Future student housing at OSU Cascades is not counted towards meeting the identified housing need– this was treated as a special site need rather than through the housing need projections.

[6] Future employment at OSU Cascades is outside the employment forecast need – this was treated as a special site need rather than through the employment projections.

[7] School-based employment in actual school facilities is excluded from the employment forecast need. The need for new school facilities is driven by school service areas and population growth rather than by the need to accommodate future employment.

SET ASIDES

In order to account for right of way, neighborhood parks and trails, and "other uses" such as churches, golf courses, etc. that may occupy land in a variety of plan designations but are not employment or housing uses, the development types also include set-asides that convert from gross vacant buildable acres to net residential and employment acres. The assumptions for these set-asides are documented below.

Right of Way

As part of the analysis for the 2008 UGB expansion effort, the City of Bend calculated the amount of land used for right of way city-wide, across all plan designations, at 21%. The "development types" in Envision Tomorrow include some variation in right of way set asides based on the nature of development typical of a given plan designation (for example, industrial development typically has less land used for roads than dense single family neighborhoods), but are calibrated to approximate this overall amount of right of way.

Parks and Trails

Parks are accounted for in two different ways in Envision Tomorrow: future Community Parks are identified with their own development type and an approximate location and size, while neighborhood parks and trails are accounted for through set-asides in certain development types (described below).

The locations and sizes of potential future community parks will be further vetted with Bend Parks and Recreation District (BPRD) as part of the evaluation process for the scenarios so that the ultimate land need for parks is calibrated to their evaluation of the needs to serve growth inside and outside the UGB.

Neighborhood parks and trails are built into residential and mixed use development types, on the assumption that they will primarily be built in those areas. BPRD has adopted "Level of Service" (LOS) standards for neighborhood parks and trails that specify a target number of acres or miles to be available per 1,000 service population. In their 2012 Parks Master Plan, BPRD set a neighborhood park standard of 1.5 acres/1,000 population. However, their previous standard was 2.0 acres/1,000 population, and in discussions with city staff, BPRD indicated that they may want to revert to the higher standard in planning for higher density expansion areas. BPRD also has an adopted trails standard of 1 mile/1,000 population. Using an assumed 20' right of way for trails, this translates to 2.4 acres/1,000 population for trails.

Set asides in the development types have been calibrated to provide for a total of 4.1 acres of neighborhood parks and trails, combined, per 1,000 of new population – halfway between BPRD's adopted neighborhood park standard of 1.5 acres/1,000 population and the 2.0 acres/1,000 population they indicated they may want to use for higher density expansion areas, plus 2.4 acres/1,000 population for trails. The set asides range from 1% of land in mixed use designations and RL, to 5% in basic RS, RM and RH designations, to 8% in the "Hillside" and

"Masterplan" versions of RS and RM, on the theory that those kind of developments are more likely to be required to dedicate parks and trails.

Schools

Public K-12 schools are accounted for in Envision with their own development type, similar to community parks. Approximate sizes and locations of future schools have been "painted" in the scenarios; however, the locations and types of schools identified will be further refined based on coordination with Bend-La Pine Schools, which is currently underway.

Other Lands

As part of the analysis for the 2008 EOA and HNA, the City of Bend calculated the amount of land used for "other lands" city-wide, including uses such as churches, fraternal organizations, golf courses and other uses that are neither housing nor employment (schools and parks are addressed separately as discussed above). Overall, 12.8% of the city's land area was found to be dedicated to these uses. This percentage set aside is applied to development types representing all plan designations in Envision Tomorrow.

REDEVELOPMENT

Each "development type" addresses redevelopment by applying its growth assumptions to a specific percentage of land that is already developed – called the "redevelopment rate". The model applies the appropriate density and mix assumptions to the redeveloped fraction of the land. It does not specify which land exactly is redeveloped, only how much of it is redeveloped overall. This percentage is set for each development type.

For residential land, redevelopment rates were set to zero across the board. This was based on a combination of the way that "vacant" and "developed" lands were identified for residential land,[8] and the fact that there has been virtually no history of residential redevelopment through tear-downs in Bend to date[9].

For employment land, the approach to identifying the overall amount of redevelopment that is reasonable to expect under "base case" (current policy and trend) conditions was documented in the November 11, 2014 memorandum titled "Recommended Redevelopment Rate for Employment Lands" that was provided to the Employment TAC. The redevelopment rates in the development types, which specify a percentage of land that will redevelop rather than a percentage of jobs that will be accommodated through redevelopment, were calibrated in the

[8] See February 6, 2015 memorandum titled Draft Bend UGB Buildable Lands Inventory. In short, residential land identified as "developed" would generally only be able to redevelop through removal of existing development. Land that can be built on without removal of the existing structure was generally coded as "vacant" even if there was development on the parcel.

[9] Based on an analysis of building permit data to identify instances where demolition of a residential structure was followed by construction of one or more residential structure(s) with more total units than were on the site previously.

base case to yield approximately the number of jobs that the more detailed redevelopment analysis suggested were reasonable. In the current scenario for growth inside the existing UGB, the redevelopment rates (percent of land area) in each development type remain the same, but more developed land has been identified for potential redevelopment, and some land has been "painted" with more intense development types and ones that may have a higher redevelopment rate. These changes have increased the number of jobs that can be accommodated through redevelopment, even without changing the assumed rate in each development type. Redevelopment rates for employment designations vary as follows:

- 4-6% for CC, CL, CG, ME, PF, and the industrial designations
- 8-10% for MR and MDOZ
- 15-25% for CB and the new mixed use development types

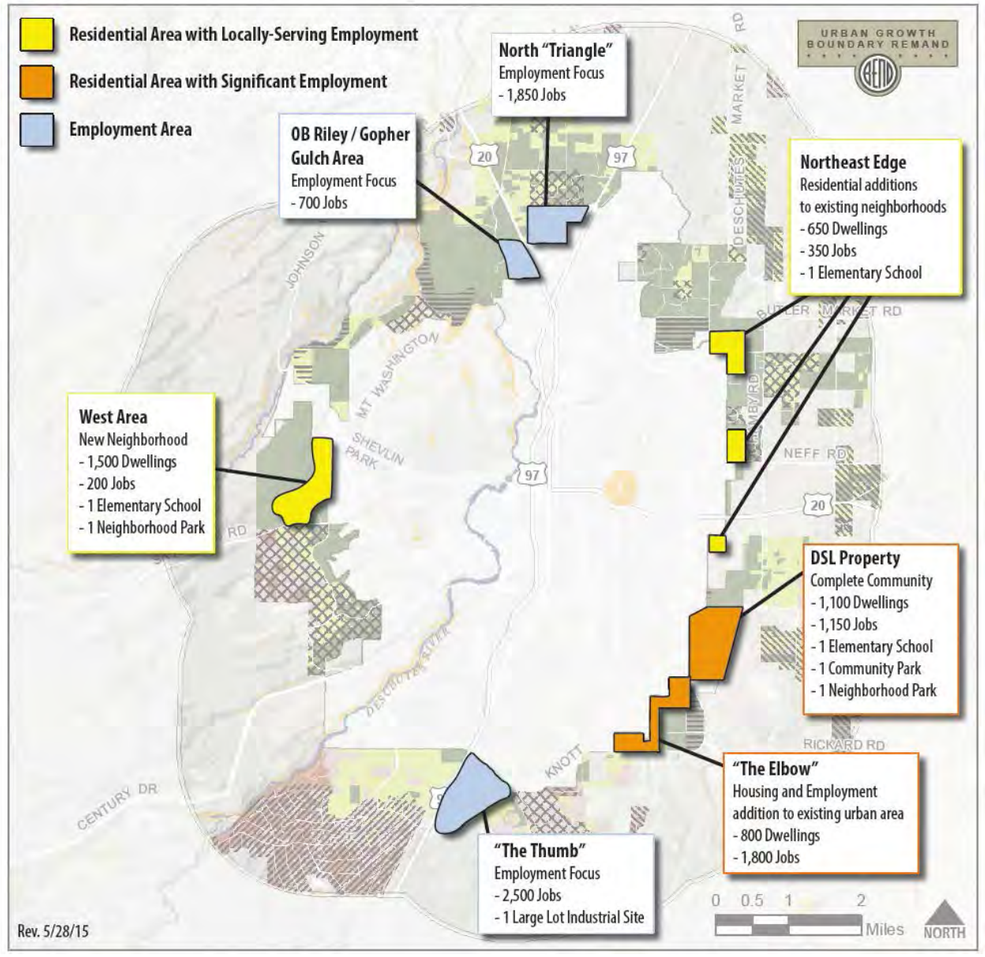
APPENDIX G:

Side-by-Side Scenarios, Original and Refined Versions

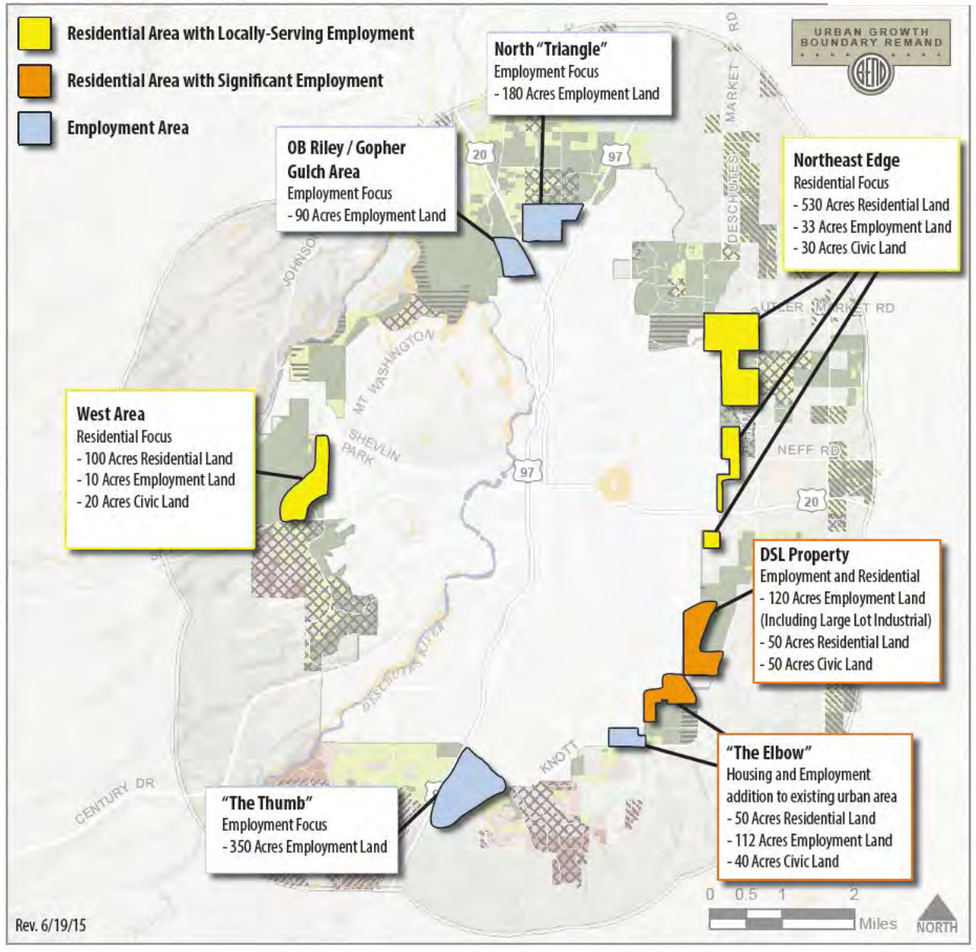
Appendix G

Side-By-Side comparisons of scenarios presented at June 9, 2015 TAC meeting and updated scenarios for June 24 TAC meeting.

Expansion Scenario 1

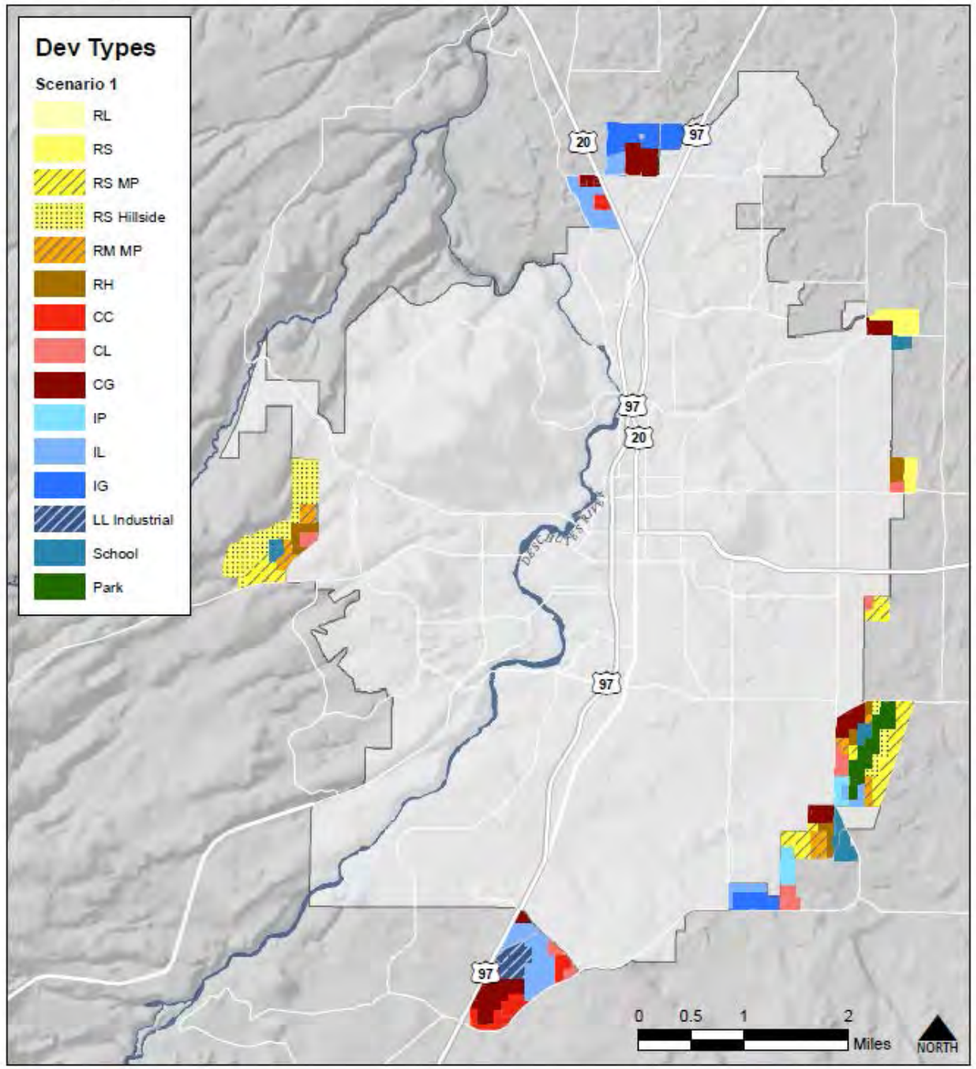


Expansion Scenario 1.1



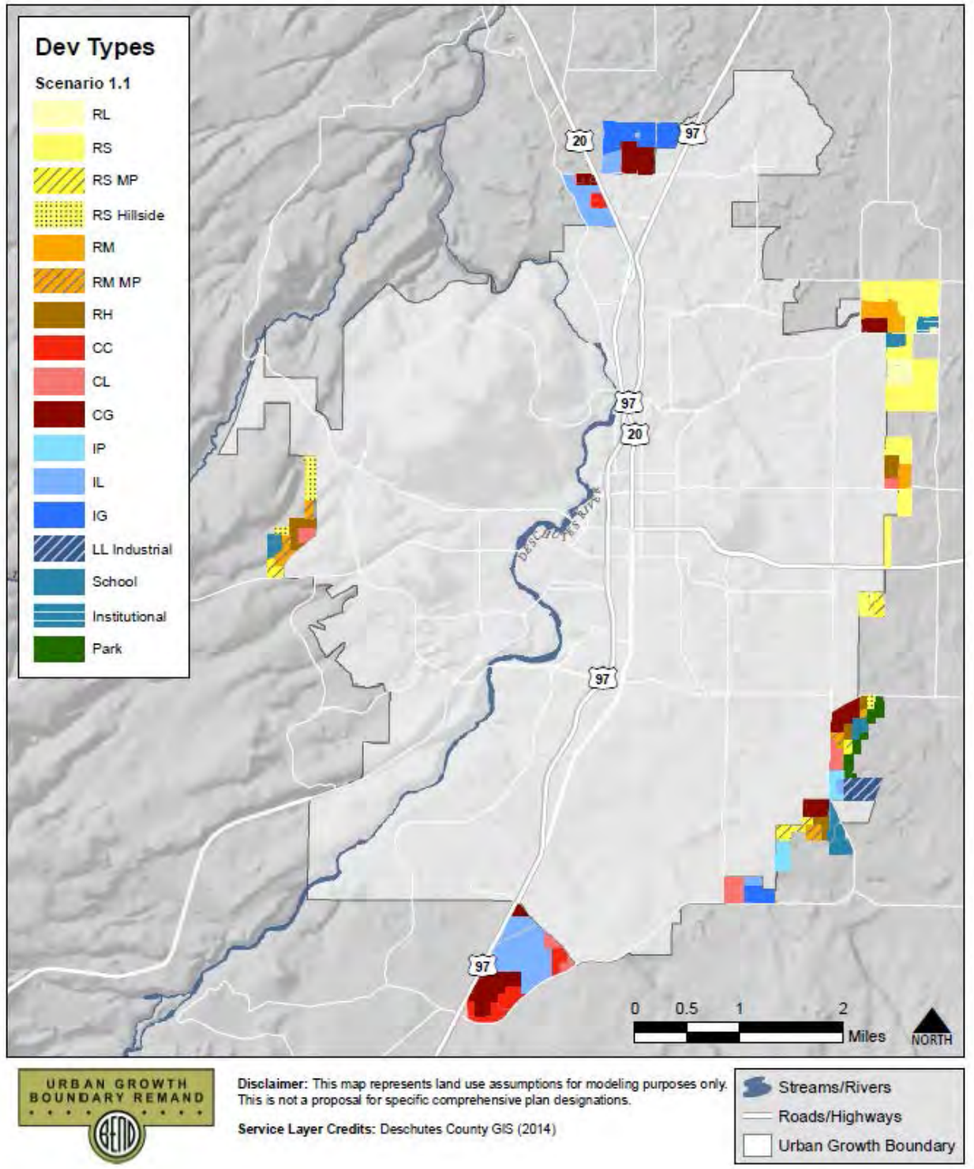
Bend UGB
Draft Expansion Scenarios

Expansion Scenario 1

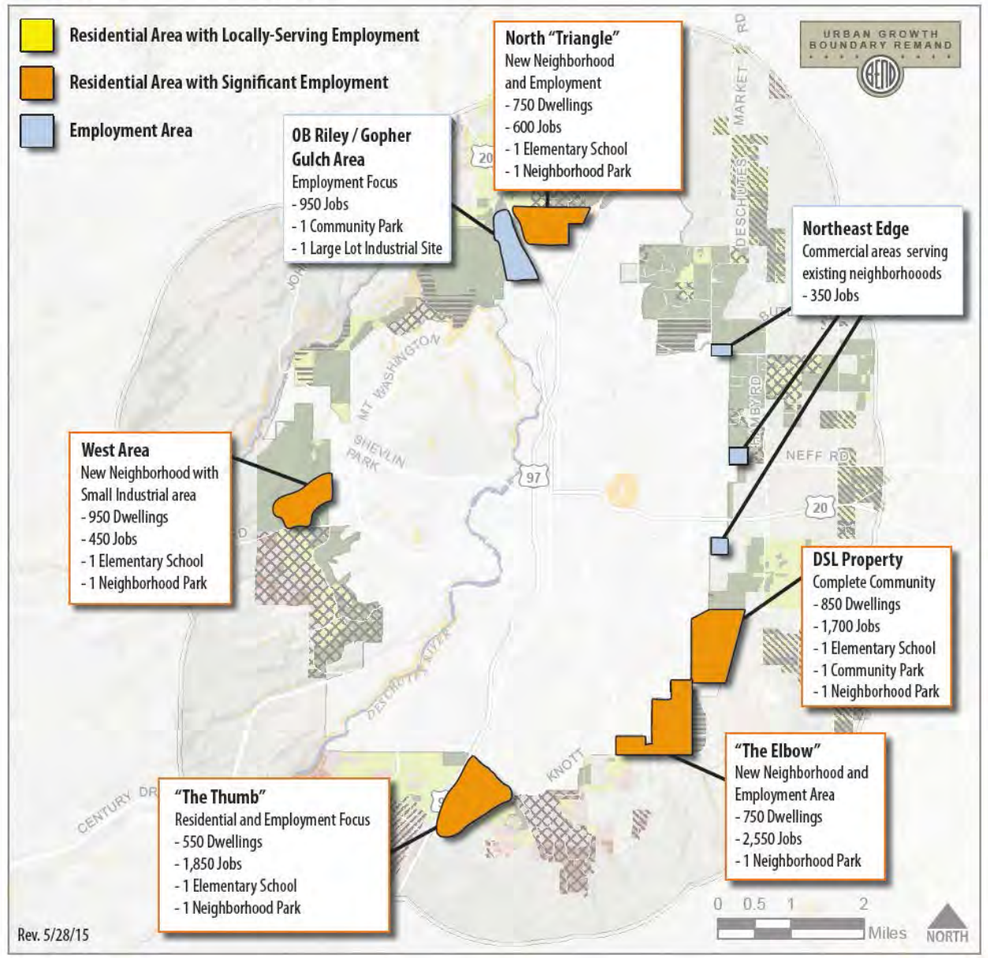


Bend UGB
Draft Expansion Scenarios

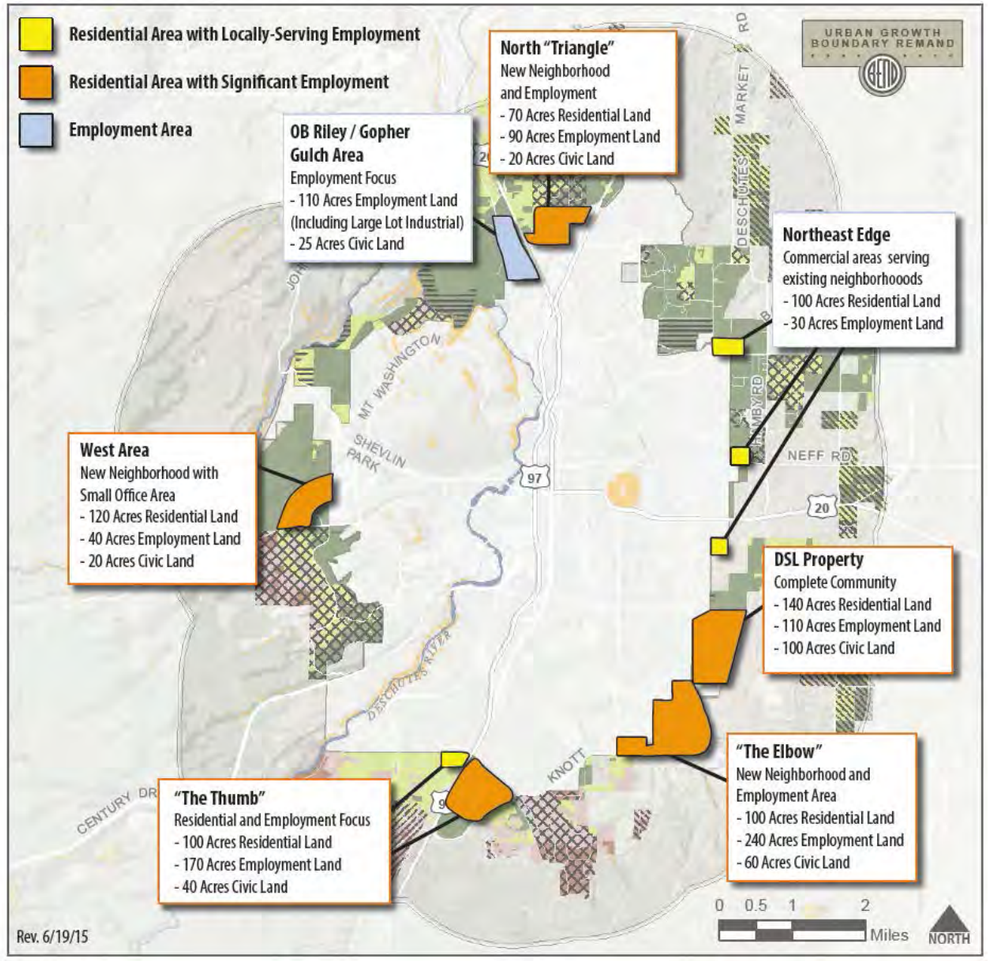
Expansion Scenario 1.1



Expansion Scenario 2

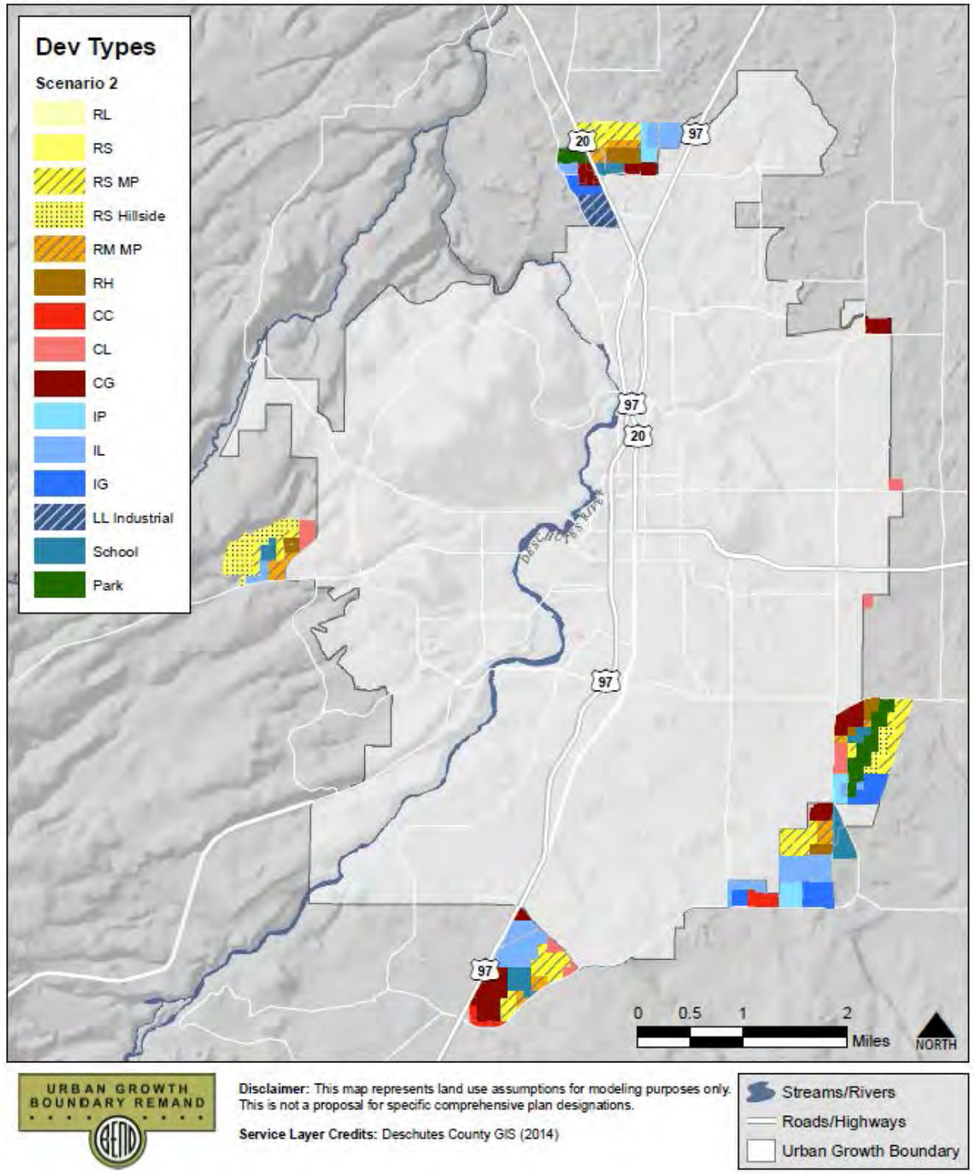


Expansion Scenario 2.1



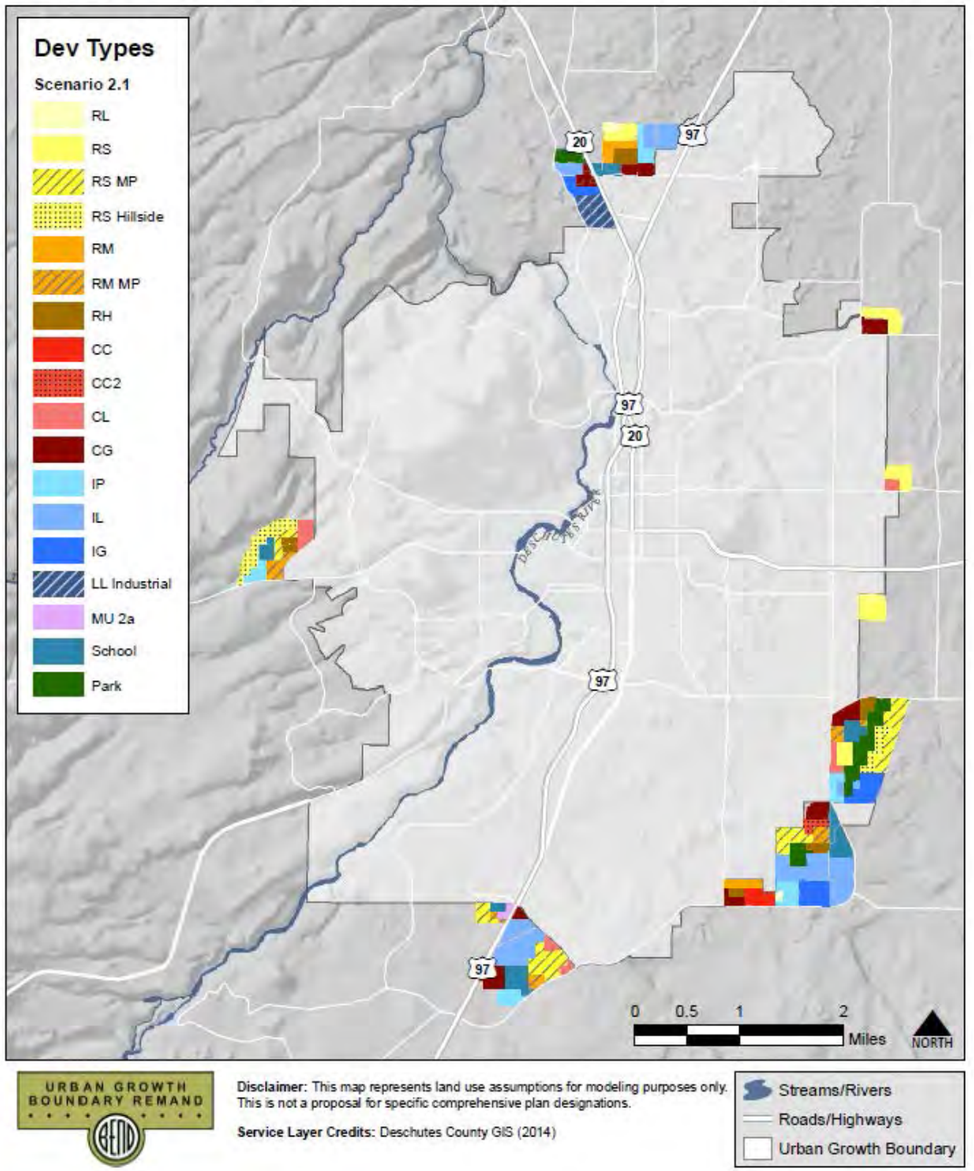
Bend UGB
Draft Expansion Scenarios

Expansion Scenario 2

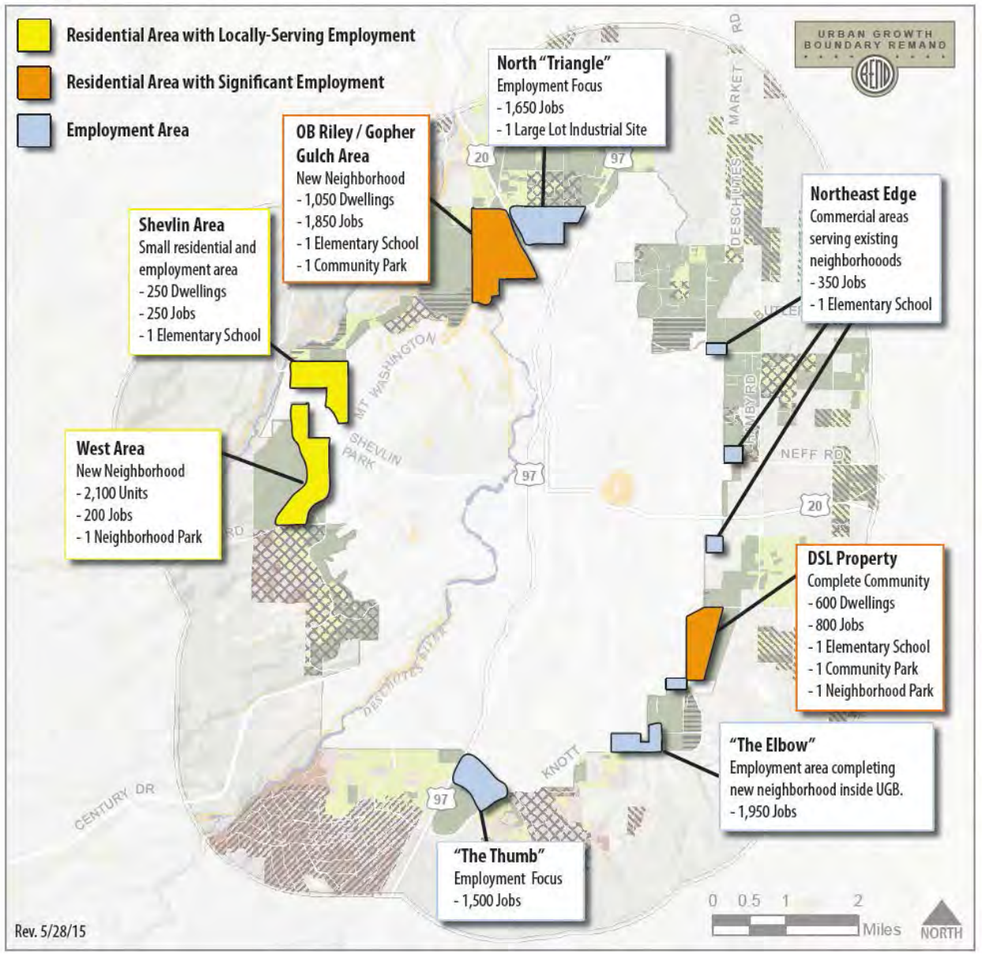


Bend UGB
Draft Expansion Scenarios

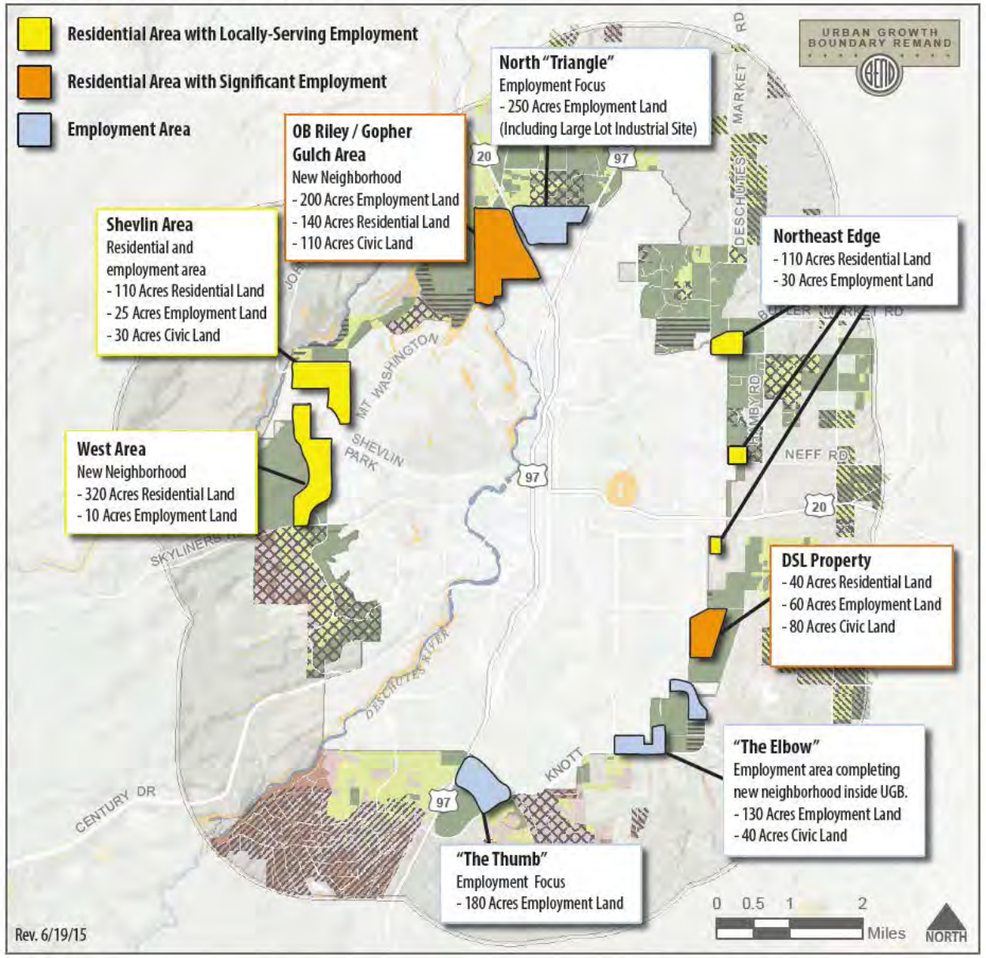
Expansion Scenario 2.1



Expansion Scenario 3

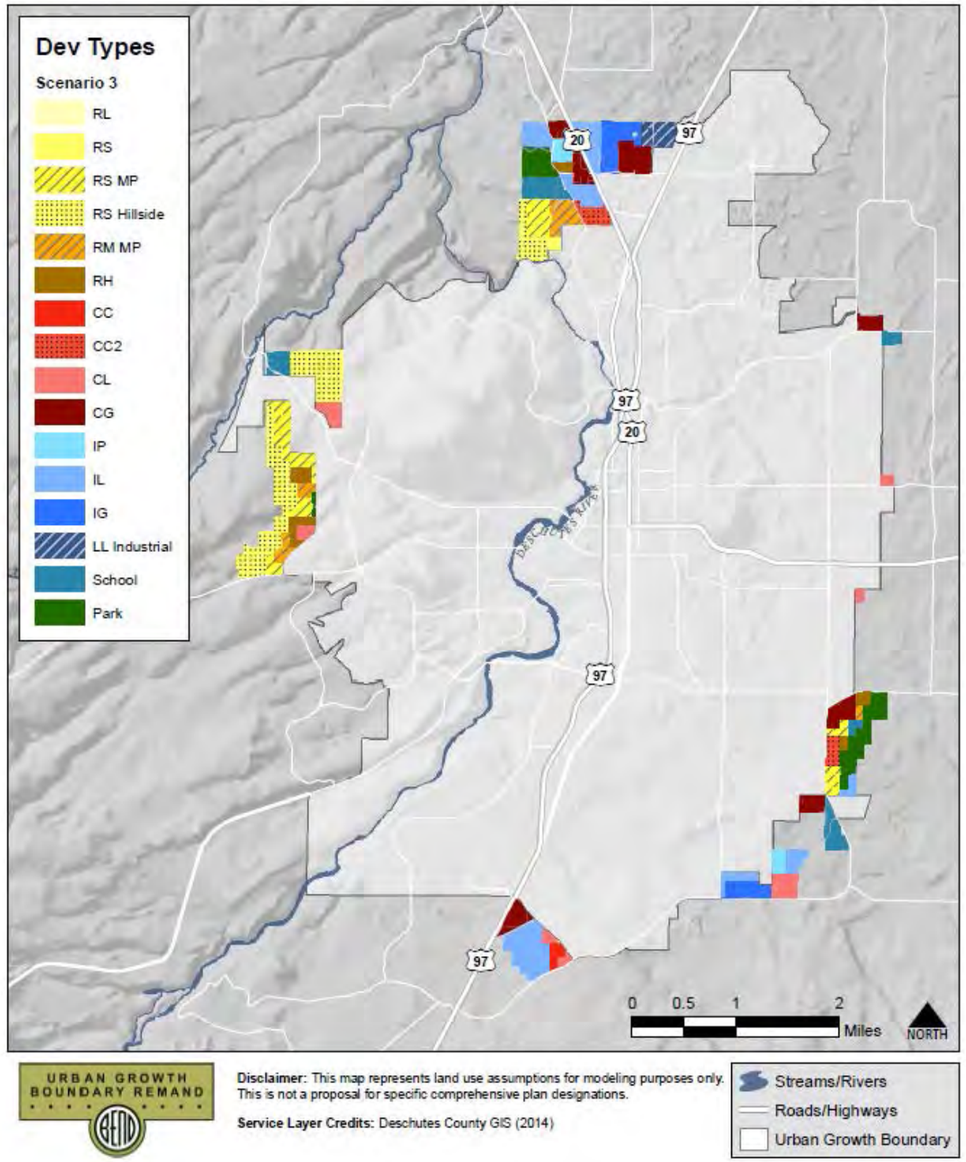


Expansion Scenario 3.1



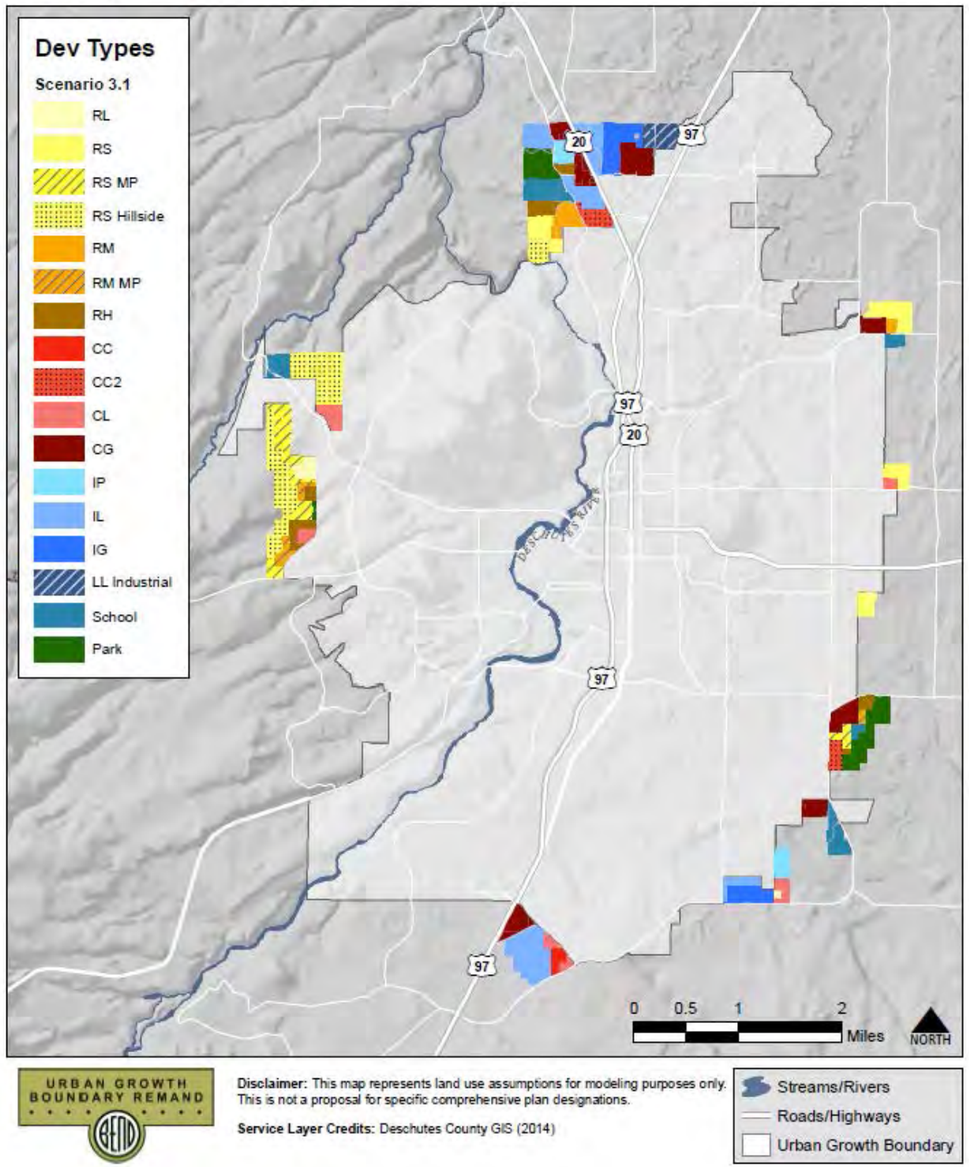
Bend UGB
Draft Expansion Scenarios

Expansion Scenario 3



Bend UGB
Draft Expansion Scenarios

Expansion Scenario 3.1



Meeting Agenda

Urban Growth Boundary Technical Advisory Committee – Meeting 3
Tuesday, October 14, 2014 10:00 AM – 12:30 PM
City Council Chambers, Bend City Hall

Meeting Purpose and What is Needed from the TAC

The purposes of this meeting are to:

- Discuss the work plan's Phase 2 milestones.
- Review an approach to the Step 2 screening and Step 3 evaluation.

The Phase 2 milestones were presented at the All TAC meeting on October 9. The purpose of including it on the October 14th agenda is to provide time for further discussion by the Boundary TAC. A full understanding of these milestones will help the TAC frame how various boundary criteria will be applied in the Phase 2 process next year.

The Step 2 screening is the first topic in the updated sequence of Boundary methodology topics charted for Boundary TAC meetings 3-6. Meeting 3 will explore questions and options for: what should be included in "unbuildable lands"; what lands could be screened out in Step 2 screening relative to evaluation in Step 3; the approach to Goal 5 resources (Natural Resources, Scenic and Historic Areas, and Open Spaces); and the approach to Goal 7 resources (Areas Subject to Natural Hazards).

Urban form maps will be available at the meeting but will not be an agenda item.

The specific discussion questions, i.e. the feedback we would like from the TAC, are listed as the bulleted discussion questions under each agenda item. They are a starting point for the agenda.

1. Welcome and Introductions — 10:00 AM

a. Welcome and convene — Co-chairs
b. Self-introductions — All

For additional project information, visit the project website at http://bend.or.us or contact Brian Rankin, City of Bend, at brankin@bendoregon.gov or 541-388-5584

Accessible Meeting/Alternate Format Notification
This meeting/event location is accessible. Sign and other language interpreter service, assistive listening devices, materials in alternate format such as Braille, large print, electronic formats, language translations or any other accommodations are available upon advance request at no cost. Please contact the City Recorder no later than 24 hours in advance of the meeting at rchristie@ci.bend.or.us, or fax 385-6676. Providing at least 2 days notice prior to the event will help ensure availability.

2. Phase 2 Milestones — 10:10 PM

Information and direction

a. See above purpose statement for this agenda item and the Phase 2 chart included in the packet. There will be brief overview – the milestones were described in the All TAC meeting on Oct 9. — All
   - TAC discussion questions – Are there any further questions regarding the proposed Phase 2 milestones? Does the Boundary TAC support them as the proposed milestones?

3. Approach to Step 2 Screening — 10:30 AM

Information and preliminary direction

a. Briefing and discussion – Working from the memorandum and a set of maps, staff will recap important elements of each topic in the memo: McMinnville guidance; Unbuildable Lands; Specific Land Needs Site Criteria; Inability to Reasonably Provide Urban Services; ESEE Consequences; and Compatibility with Resource Activities. — Mary Dorman and Bob Parker
   - Questions and Options for the TAC - Please see the Summary, Options and Recommendations for the following topics:
     - Unbuildable Lands
     - Step 2 Screening vs. Step 3 Evaluation
     - Approach to Goal 5
     - Approach to Goal 7

The TAC will work through the options for each topic. The goal is to provide preliminary direction on these topics, subject to finalization in the "roll-up" discussion at Boundary TAC 6.

4. Project News — 12:20 PM

a. Announcements and updates — Brian Rankin
b. News from the other TACs — and Joe Dills

5. Adjourn — 12:30 PM

Memorandum

October 7, 2014

To: Boundary and Growth Scenarios Technical Advisory Committee
Cc: Bend Staff
From: APG Consulting Team
Re: Approach to Step 2 Screening

INTRODUCTION

At the first meeting on August 5th, the Boundary TAC asked for a legal analysis of the Court of Appeals decision on the McMinnville UGB, and how it impacts the direction on the alternatives and boundary location analysis from LCDC in the Bend Remand Order. City Attorney Mary Winters presented a memorandum at the second meeting of the Boundary TAC, supported with a diagram illustrating the steps in the process.[1]

The Boundary TAC supported the concept of developing the methodology for the UGB process consistent with the "steps" outlined in the Court of Appeals decision. This means the UGB methodology will follow the guidance of the McMinnville decision (which was issued after the Remand Order) rather than the methodology outlined in the Remand Order. However, it was understood that additional work is needed to flesh out the methodology and levels of detail considered for Step 2 (Initial Suitability Evaluation) and Step 3 (Goal 14 Analysis of Factors). The Steering Committee (USC) endorsed this recommendation.

STEP 2 GUIDANCE FROM MCMINNVILLE UGB DECISION

As described in the memo from the City Attorney, the Court said that Step 1 in the UGB process is to determine the land needed under ORS 197.298(1). The Residential and Employment TACs are taking the lead on Step 1. The Employment TAC will also take the lead in defining suitability criteria for specific land needs (such as large-lot industrial).

In Step 2, Bend will determine the adequacy of first priority (exception) lands under ORS 197.298 (1) and (3). The Court reasoned that only Goal 14 Factor 3 (Comparative environmental, social, economic and energy consequences, or ESEE) and Factor 4 (Compatibility with nearby farm and forest activities) are applied to determine whether higher priority land "is inadequate to accommodate the amount of land needed" under ORS 197.298(1). In other words, Goal 14 Factor 1 (efficiency of land uses) and Factor 2 (orderly and economic provision of public facilities and services) do not come into play in Step 2. As stated in

[1] See packet for August 26, 2014 Boundary TAC Meeting.

the memo from the City Attorney: "This step is best viewed as a way to determine whether there is sufficient higher priority land to meet the City's needs identified in Step 1 and to disqualify unsuitable land (narrowly defined)." If there is enough first priority land to meet all land needs, Step 2 is not necessary and the City could proceed directly to Step 3; Step 2 was required in *McMinnville* because lower priority lands were included in the UGB expansion.

In Step 2, Bend can apply the following factors to exclude higher priority lands from further consideration as candidate areas to include in the UGB:

- Exclude lands that are not buildable
- Exclude or include lands based upon specific land needs (197.298(3)(a))
- Exclude lands based on inability to reasonably provide urban services due to topographic or other physical constraints (197.298(3)(b))
- Exclude lands based upon analysis of ESEE consequences (Goal 14, Factor 3)
- Exclude lands based upon analysis of compatibility with agricultural & forest activities (Goal 14, Factor 4)

We have provided additional detail and a working recommendation on how to apply each of these categories of exclusions for the Bend UGB expansion study area, organized under the headings listed in the bullets above. The last two sections of the memo focus more specifically on the approach to Goal 5 (Natural Resources) and Goal 7 (Natural Hazards).

We have attached a series of maps showing preliminary mapping of lands that are not buildable outside the UGB within the 2-mile study area (see Exhibit A). These maps will provide a starting point for TAC discussion of what lands are considered unbuildable in potential expansion areas. We will then focus more specifically on whether any higher priority exception lands could or should be screened from further consideration in Step 2 based on ESEE consequences or compatibility with agricultural and forest activities. The maps in Exhibit B provide a starting point for discussion of Goal 5 & 7 ESEE considerations under Step 2 and/or Step 3 of the UGB process.

UNBUILDABLE LANDS

Overview

Any needed UGB amendment process for purposes of land development begins with the identification of buildable land that is contiguous to the existing boundary. ORS 197.296(6)(a) makes this step explicit for housing needs. LCDC has further defined "suitable and available" buildable lands[2] to exclude land that:

- Is severely constrained by natural hazards under Goal 7 (e.g. 100-year floodplain; severe slopes – 25% or greater; landslides; wildfires)

[2] OAR 660-008-0005(2)

- Is subject to natural resource protection measures under Goal 5 (e.g. riparian corridor, wildlife habitat, scenic waterway, groundwater resource, mineral and aggregate resource etc.)
- Cannot be provided with public facilities.

It is important to emphasize that identifying lands that are unbuildable doesn't necessarily mean that these lands shouldn't be included in the UGB. However, if they are included, they aren't counted as part of the Buildable Lands Inventory (BLI). Obviously, there are lands within Bend's existing UGB that are within the 100-year floodplain and are subject to protection measures under Goal 5, including but not limited to the Deschutes River and a portion of Tumalo Creek. In addition, Chapter 2 (Natural Features and Open Space) of the Bend General Plan states: *"Bend is in the center of some of Central Oregon's most exquisite natural resources. …Bend is a community that values the area's natural features and has tried to incorporate natural features in the design of the built environment."*

Summary and Recommendation for Unbuildable Lands

Based on the definition of buildable land in OAR 660-008-005(2) and guidance from the McMinnville case, the following approach is recommended for the preliminary identification of Unbuildable Lands at Step 2 (see maps in Exhibit A):

- Floods hazard areas: consider 100-year floodplain unbuildable in Step 2
- Landslide hazard areas: consider land with 25% and greater slope unbuildable in Step 2
- Significant Aggregate Sites – consider significant sites listed in Deschutes County Goal 5 inventory with a Surface Mining plan designation unbuildable in Step 2
- Federal Wild & Scenic River – Upper Deschutes River from Wickiup Dam to the Bend Urban Growth Boundary - Consider 100' buffer from Upper Deschutes River unbuildable in Step 2
- Oregon Scenic Waterways – Consider 100' buffer from Upper Middle Deschutes River unbuildable in Step 2
- Rivers, Streams and Riparian Areas – Deschutes River and Tumalo Creek: Consider 100' buffer from top-of-bank of Tumalo Creek and Deschutes River unbuildable in Step 2 (Note: the 100-foot buffer shown on the maps in Exhibit A is approximate, and is not based on site-specific topographic information or delineation of the top-of-bank).

Question for the TAC: Does the TAC agree that the categories of lands shown on the maps in Exhibit A should be considered unbuildable for the purposes of the UGB analysis? Does the TAC agree with Step 2 screening of federally owned land and state parks from further consideration as part of a UGB expansion?

SPECIFIC LAND NEEDS SITE CRITERIA

The specific site criteria for special site needs will be identified by the Employment TAC, as stated previously. When these have been established, they will be applied to the exception

lands identified as buildable to generate maps of the high priority lands (if any) that are suitable for meeting each of the specific land needs identified. Under ORS 197.298(4)(a), if specific types of identified land needs cannot be reasonably accommodated on higher priority lands, lower priority lands designated for agriculture or forestry may be considered for inclusion in the UGB, with higher priority given to land of lower capability as measured by capability class or by cubic foot site class.

INABILITY TO REASONABLY PROVIDE URBAN SERVICES

There is a high bar to exclude land based on the inability to reasonably provide urban services – essentially physical impossibility, rather than comparatively high cost, is the threshold. To date, no physical constraints have been identified within the 2-mile study area boundary that would preclude provision of urban services. The relative efficiency of providing urban services will be evaluated in Step 3 in comparing alternative UGB expansion scenarios; however, the McMinnville case and the Remand are clear that this cannot be a basis for screening land from further consideration.

ENVIRONMENTAL, SOCIAL, ENERGY AND ECONOMIC CONSEQUENCES

Overview

Various state statutes and rules require the consideration of ESEE consequences as part of an evaluation of alternatives, such as alternative transportation improvements, alternative levels of resource protection, or alternative locations for a land use requiring a goal exception. In these contexts, ESEE consequences are evaluated as a comparison among defined alternatives; however, as stated in the memo from the City Attorney, "The ESEE contemplated at this stage, in our legal and planning view, is high level and general (not a project level ESEE as done for a Goal 3 or 4 exception analysis." Examples of the types of consequences that are sometimes considered as part of an ESEE analysis include:

- **Environmental**: impacts to wildlife habitat value; impacts to stream health and water quality; impacts to air quality, including greenhouse gas emissions; impacts to soil erosion, landslide hazards, or slope stability; etc.
- **Social**: impacts to important community institutions; impacts on community cohesion, crime, or livability; impacts to education or recreation opportunities; impacts to availability of housing or jobs; impacts to public health, safety, or welfare; impacts to scenic or aesthetic values; impacts to disadvantaged populations; etc.
- **Energy:** impacts to energy consumption for transportation, including changes in travel behavior or congestion; impacts to energy consumption for infrastructure, including to build and operate utility facilities; and impacts to energy consumption for heating/cooling of structures; impacts to fossil fuel consumption; impacts on renewable energy resources; lifecycle energy expenditures; etc.

- **Economic:** impacts on jobs or employers; impacts on local tax revenues or local capital, operations, or maintenance costs; impacts on business districts; etc.

Goal 14 ESEE analyses are uses to evaluate alternative boundary locations and are different from Goal 5 ESEE analyses, which evaluate the amount of protection to be provided to a Goal 5 resource.

Step 2 Screening vs. Step 3 Evaluation

ESEE consequences will be compared among UGB expansion alternatives as part of Step 3. In Step 2, the bar is presumed to be high to exclude higher priority land. The effort, time, and cost required to do see additional data beyond what is already available on a parcel-by-parcel basis for the entire 2-mile study area would be prohibitive. In addition, without identifying the future land use for a parcel, which it is too early at this stage to do, a full accounting of the ESEE consequences is not possible.

The recommended approach to addressing ESEE in Step 2 is to treat it as a "fatal flaw" analysis – if evidence is available to show that urbanization of a parcel or group of parcels would have severe negative environmental, social, economic, or energy consequences, rendering the parcel(s) essentially incompatible with urban development of any kind, that land could be screened from further consideration in Step 2. This could occur, for example, if such a known Goal 5 resource or Goal 7 hazard was identified on an individual parcel or group of parcels in the study area, or compelling evidence was submitted to the record to justify exclusion. On the record, aside from those areas recommended to be treated as unbuildable, the ESEE consequences of urbanizing within resource / hazard areas such as wildlife habitat and wildfire risk areas do not seem to rise to the level of severity that would warrant excluding these lands from further consideration at this stage, however, these ESEE consequences would be considered at Step 3. To date, no other resources or conflicts have been identified on exception land within the 2-mile study area that would have such severe ESEE consequences as to render land incompatible with urbanization. The more nuanced balancing of comparative consequences among alternative boundary locations during Step 3, however, will allow for selection of a boundary that has the least negative or most positive ESEE consequences on the whole. Once actual boundary expansion scenarios are proposed to meet identified needs, specific locations and uses are known, it will be possible to comply with Goal 5.

Options and Recommendation for Step 2 Screening vs. Step 3 Evaluation

Based on the discussion in this memo, the project team has outlined the following options for TAC discussion.

Option 1: Do not screen any candidate lands based on ESEE at Step 2 (Recommended by Project Team)

- Fully consider Goal 14 Factor 3 (ESEE Consequences) and Factor 4 (Compatibility) as part of the balancing of all Goal 14 factors in the Step 3 evaluation of alternative UGB scenarios

- Avoids legal risk – insufficient evidence in the record to screen candidate lands at the front end of the process based on designated significant Goal 5 resources, compatibility with resource activities or relative wildfire risk
- In Step 2, the TACs don't know what and where specific uses will be proposed as part of UGB alternatives. It isn't possible to evaluate potential conflicting uses with Goal 5 resources without that information.
- Avoids project delay and cost associated with ESEE analysis of candidate areas that may not be included in alternative UGB scenarios

Option 2: Use ESEE and Compatibility as "fatal flaw" tests for Step 2 screening purposes

- Consider screening specific higher priority lands from further consideration based on documented evidence relating to ESEE and compatibility issues
- Documented significant Goal 5 resources and significant Goal 7 hazards would be major components of screening based on fatal flaws

Option 3: Consider using the eastern bank of Tumalo Creek as a potential hard edge for future urbanization and screen exception lands west of the Creek at Step 2

- There is only one priority exception area west of Tumalo Creek within the 2-mile study area (See map in Exhibit B, NW Quadrant)
- This area has a combination of overlapping Goal 5 & 7 resources, including Wildlife Area Combining Zone, Riparian Areas, 100-year floodplain, steep slopes and is adjacent to forest land in an area of higher wildfire risk. It likely that this area, if included in any UGB expansion scenario, would require more significant Goal 5 related work (described below), and at a minimum, not be favorably evaluated in the Step 3 analysis on ESEE related criteria.
- If supported by evidence, it may be appropriate to screen this area at Step 2 and also reinforce using Tumalo Creek as a defined hard edge for urbanization based on project goals and urban form principles

Question for TAC: Does the TAC support Option 1 as recommended by the project team? This recommendation assumes that additional inventory work will be completed and Goal 5 & 7 resources considered as an important part of the Step 3 ESEE evaluation of boundary alternatives, and if included in any UGB expansion scenario, subject to Goal 5 as described below.

COMPATIBILITY WITH RESOURCE ACTIVITIES

Overview

Compatibility with resource activities is addressed in Factor 4 of Goal 14. The wording of Factor 4 is very specific: *Compatibility of the proposed urban uses with nearby agricultural and forest activities occurring on farm and forest land outside the UGB.*

First, proposed urban uses must be near agricultural and forest activities. Second, any agricultural and forest activities must be occurring on designated farm and forest land (e.g., not on exception land).

Step 2 Screening vs. Step 3 Evaluation

Potential evaluation criteria and measures to address Factor 4 (in Step 3 of the process) were presented in the packet of materials for the second meeting of the Boundary TAC on August 26th. However, the Boundary TAC did not have time to discuss that item on the agenda.

The following potential evaluation criteria were proposed for the evaluation of alternative UGB scenarios in Phase 2:

- Does the scenario include any designated resource lands (categorized by site class or capability class)?
- Does the scenario expand the perimeter of proposed urban uses in closer proximity to designated resource lands?
- For each scenario, what forest or farm activities are occurring where the perimeter of the proposed UGB is in closer proximity to designated resource lands?
- Are tools available to minimize compatibility issues at the interface between urban and resource lands?

As with the ESEE consequences discussed in the previous section, the bar is presumed to be high to exclude land on the basis of compatibility with resource land in Step 2. As with the ESEE consequences, the recommended approach to addressing compatibility with resource uses in Step 2 is to treat it as a "fatal flaw" analysis – if evidence is available to show that urbanization of a parcel or group of parcels would have severe compatibility issues with nearby resource land, rendering the parcel(s) essentially incompatible with urban development of any kind, that land could be screened from further consideration in Step 2. To date, no conflicts have been identified on exception land within the 2-mile study area that would have such severe compatibility issues with nearby resource land as to render the land incompatible with urbanization. The more nuanced comparative analysis of compatibility among alternatives will allow for selection of a boundary that has the least compatibility issues with nearby resource land on the whole.

Question for TAC: Does the TAC agree with the approach of addressing compatibility with resource activities in the Step 3 ESEE analysis of alternative boundary scenarios; unless evidence is available to demonstrate a "fatal flaw" at Step 2?

APPROACH TO GOAL 5

Goal 5 Overview

An overview of Goal 5 and the Goal 5 administrative rule is provided below. See Appendix A for the full text Goal 5 and Appendix B for the full text of the Goal 5 administrative rule. A summary

of the statewide goal context is presented first, followed by brief information on plan and code provisions implemented by the City of Bend and Deschutes County to address Goal 5 resources. The Remand also provides helpful background to review as part of the Goal 5 discussion (see excerpts from Remand in Appendix C).

Statewide Planning Goal Context

As summarized in the following table, Goal 5 encompasses more than a dozen resource categories and the Goal 5 administrative rule (OAR 660, Division 23) sets out how cities and counties are to plan and zone land to protect significant resources listed in the goal.

Resource Category	**OAR Reference**	**Local Government Options**[3]
Riparian corridors	660-023-0090	Safe harbor or 5-step process
Wetlands	660-023-0100	Safe harbor or 5-step process
Wildlife habitat	660-023-0110	Safe harbor and/or 5-step process
Federal Wild and Scenic Rivers	660-023-0120	Rely on federal inventories and programs
Oregon Scenic Waterways	660-023-0130	Rely on state inventories and programs
Groundwater resources	660-023-0140	Rely on inventories by OWRC and wellhead protection programs
Approved Oregon Recreation Trails	660-023-0150	Rely on designations by OPRC
Natural Areas	660-023-0160	Rely on areas listed in the Oregon State Register of Natural Heritage Resources and develop program based on 5-step process
Wilderness areas	660-023-0170	List all federally designated wilderness areas
Mineral and aggregate resources	660-023-0180	Counties: follow 5-step process

[3] See OAR 660-023-0090 through OAR 660-023-0230.

Resource Category	OAR Reference	Local Government Options[3]
Energy sources	660-023-0190	Rely on EFSC or FERC inventories or process on case-by-case basis
Historic resources	660-023-0200	List sites on National Register Not required to apply the ESEE process
Open space	660-023-0220	Voluntary
Scenic views & sites	660-023-0230	Voluntary

For some resources (such as riparian areas), the rules offer cities and counties a choice: use an expedited "safe harbor" option, or follow a standard five-step process: 1) Inventory process – determine significance of resource sites; 2) Identify conflicting uses; 3) Determine the impact area; 4) Analyze the ESEE consequences; and 5) develop a program to achieve Goal 5.[4] For other resources (such as Federal or State Scenic Waterways), jurisdictions are directed to use the standard process or rely on existing state or federal programs. For open space and scenic views, jurisdictions may decide not to protect these resources at all under Goal 5.

Due to some recent changes in state administrative rules relating to periodic review, the Goal 5 rules are now triggered only during certain plan amendments. Even then, they apply only to new or amended inventories typically initiated voluntarily by local governments for new areas added to UGBs or where rezoning or plan amendment proposals affect resources already inventoried. This is important to the UGB process because Goal 5 issues could be raised again with a revised UGB; even though DLCD and the City agreed to a "negotiated resolution" to Goal 5 issues as part of the remand (see Appendix C).

As shown on the maps in Exhibit B, the Deschutes County Comprehensive Plan designates significant deer winter range and significant elk habitat areas in the NW, SW and SE quadrant maps. Deschutes County applies the Wildlife Area Combining Zone – WA to these areas.[5] See Appendix B (660-023-0110) for Goal 5 requirements related to wildlife habitat.

Relative to wildlife habitat, jurisdictions have flexibility to either follow the standard five-step Goal 5 process set out in OAR 660-023-0030 through 660-023-0050 or follow the safe harbor methodology described in 660-023-0110(4) above. However, while the rule provides a safe harbor methodology to inventory significant wildlife habitat, it does not include a safe harbor

[4] OAR 660-023-0030 through 660-023-0050.

[5] See Deschutes County Code, Chapter 18.88 – Wildlife Area Combining Zone.

program to protect significant wildlife habitat; and local jurisdictions must still complete the ESEE decision process (660-023-0040) and develop Programs to Achieve Goal 5 (660-023-0050).

Under the ESEE decision process in 660-023-0040, local governments develop a program to achieve Goal 5 for all significant resource sites based on an analysis of the economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use. One of the following determinations shall be reached with regard to conflicting uses for a significant resource site:

(a) A local government may decide that a significant resource site is of such importance compared to the conflicting uses, and the ESEE consequences of allowing the conflicting uses are so detrimental to the resource, that the conflicting uses should be prohibited.

(b) A local government may decide that both the resource site and the conflicting uses are important compared to each other, and, based on the ESEE analysis, the conflicting uses should be allowed in a limited way that protects the resource site to a desired extent.

(c) A local government may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource site, and must indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.

City of Bend

The City of Bend has an acknowledged Goal 5 Inventory and ESEE Analysis for the area within the existing UGB.[6] The Inventory and Analysis Report was adopted by City Council in 2002 as part of a "periodic review" work task with DLCD that directed the city to conduct a review of the following Goal 5 resources:

- Riparian areas (river, streams and associated areas)
- Wetlands
- Wildlife habitat
- Oregon Scenic Waterways

The City's Goal 5 inventory does not include or address the Urban Area Reserve identified on the Bend Area General Plan Map outside the UGB. Findings on the inventoried Goal 5 resources are briefly highlighted below.

1. Riparian Areas: The significant Goal 5 riparian resources within the UGB are approximately ten miles of the Deschutes River and approximately a quarter-mile of Tumalo Creek. The Waterway Overlay Zone establishes buffers ranging from 30- 75 feet

[6] See Bend Area General Plan, Appendix D.

(each side) for the Deschutes River, and 50 feet (each side) of Tumalo Creek. Riparian buffers are measured from the ordinary high water line (OHW), or from the upland edge of any designated wetlands, whichever is more landward.

2. Wetlands: The inventory revealed that there are no known significant Goal 5 wetland resources outside of the riparian corridor of the Deschutes River. The entirety of the Deschutes River within the UGB was evaluated as a single wetlands system at the recommendation of the Department of State Lands wetland biologist.

3. Wildlife Habitat: ODFW concluded that there are no significant Goal 5 wildlife habitat resources requiring protection within the UGB.

4. Oregon Scenic Waterways: Two sections of the Oregon Scenic Waterway (Deschutes River) at the north and south ends of the river within the UGB are significant Goal 5 resources.

Bend's program to protect significant riparian areas and scenic waterways is primarily implemented through Article V (Waterway Overlay Zone - WOZ) of the Bend Development Code. The WOZ includes subzones for: 1) Riparian Corridor, 2) Deschutes River Corridor Design Review, 3) River Corridor Areas of Special Interest, and 4) Flood Plain. Among other provisions, the WOZ establishes riparian corridor setbacks for the Deschutes River and Tumalo Creek (ranging from 30 to 75 feet from OHW or upland edge of wetland, whichever is greater).

Deschutes County

Deschutes County completed Goal 5 inventories and the ESEE analysis between 1988 and 2003. Resources inventoried included: 1) Water Resources, 2) Wildlife Resources, 3) Open Space and Scenic Views and Sites Resources, 4) Energy Resources, 5) Wilderness, Natural Areas and Recreation Trails, 6) Surface Mining Resources, and 7) Cultural and Historic Resources. The complete acknowledged Goal 5 inventory lists as of 2010 can be found in Chapter 5 of the Deschutes County Comprehensive Plan.

The County's Goal 5 inventory does not include or address the Urban Area Reserve identified on the Bend Area General Plan Map outside the UGB. The County Plan identifies the following significant Goal 5 resources in the 2-mile study area for the Bend UGB (see attached maps in Exhibit B).

- Federal Wild & Scenic River – Upper Deschutes River from Wickiup Dam to the Bend Urban Growth Boundary
- Oregon Scenic Waterways – Middle Deschutes
- Rivers, Streams and Riparian Areas – Deschutes River and Tumalo Creek
- Deer & Elk Winter Range
- Aggregate Sites

The available GIS information does not include any sites on the County's Goal 5 sensitive bird and mammal inventory within the 2-mile study area.

Deschutes County is not required to and does not protect wetlands; instead, development activities proposed on a site on the National Wetlands Inventory are required to initiate a land use procedure and notify the Oregon Department of State Lands.

The County's program to protect the significant Goal 5 resources within the 2-mile study area includes minimum setbacks from rivers, streams and riparian areas (100-foot from OHW); required 10-foot conservation easements from OHW of rivers and streams; limitations on uses and densities and standards relating to fencing and clustering of structures in proximity to existing roads in the Wildlife Combining Zone; and limitations on conflicting uses within mining impact areas.[7]

Direction from LCDC Remand on Goal 5

The Department received objections to the 2008 UGB Expansion based on Goal 5, generally asserting that the City failed to apply Goal 5 to the UGB expansion area or that the City identified land within the proposed expansion areas (Surface Mining) without adequate justification for the designation.

The Director's Report stated that OAR chapter 660, divisions 23 and 24 both specify that a UGB expansion triggers applicability of Goal 5.[8] At a minimum, a local jurisdiction expanding its UGB must complete the following for the expansion area when factual information is submitted that a Goal 5 resource or the impact area of a Goal 5 resource is included in the UGB expansion area:

- Conduct required Goal 5 resources inventories for which the rule does not rely on state or federal inventories. These are riparian corridors, wetlands, and wildlife habitat.
- Adopt inventories for resources that rely on state and federal protections, specifically: federal Wild and Scenic Rivers, Oregon Scenic Waterways, state-designated critical groundwater areas and restrictively classified areas, approved Oregon Parks and Recreation Commission recreation trails, Oregon State Register of National Heritage Resources sites, federally designated wilderness areas, and certain specific energy sources.
- Develop a local protection program for all significant Goal 5 resources that are identified in an inventory, as required by the rule specific to the resource category.

Subsequent to the Director's Report, the Department and the City negotiated a resolution to Goal 5 issues. LCDC concluded in the Remand Order that the resolution establishes a manner

[7] Deschutes County Code – Title 18 (County Zoning):
- Chapter 18.48 – Open Space Conservation Zone (OS&C)
- Chapter 18.52 – Surface Mining Zone (SM)
- Chapter 18.56 – Surface Mining Impact Area Combining Zone (SMIA)
- Chapter 18.84 – Landscape Management Combining Zone (LM)
- Chapter 18.88 – Wildlife Area Combining Zone (WA)
- Chapter 18.116.220 – Conservation Easements on Property Adjacent to Rivers and Streams

[8] OAR 660-023-0250(3)(c) and OAR 660-024-0020(1)(c).

for the City to comply with Goal 5 as implemented by division 23 on remand. See Exhibit C for the specific directives. In general, the negotiated resolution focused on protection of the state scenic waterway, riparian areas and associated fish habitat – should a revised expansion area include areas along the Deschutes River, Tumalo Creek or both. The negotiated settlement did not address protection of deer or elk winter range areas. The City was directed to adopt the county measures that serve to protect the scenic waterway and add restrictions for vegetation removal within the significant riparian area. Additionally, the City must meet safe harbor protection standards for riparian corridors (including setbacks of 50 to 75 feet from the top of bank, based on average annual stream flow).

The guidance on conducting the Goal 14 evaluation for Remand Task 9.1 (similar to the Step 3 process now being used to evaluate lands for inclusion after screening lands in Step 2) does not require the City to conduct inventories for Goal 5 resources.

2009 ODFW Winter Range Map

When Deschutes County updated its Comprehensive Plan in 2011, staff specifically reached out to ODFW to determine if there were any new inventories. The only new ones pertained to Conservation Opportunities Areas near La Pine and Whychus Creek. However, the project team is now aware of updated ODFW winter range inventories completed in 2009. A copy of this map is included in Appendix D. We have not had the opportunity to obtain the GIS layer from ODFW and the map is at a very small scale. However, the urbanized area of Bend shows up in dark grey in the approximate center of the map, with the Redmond urbanized area to the northeast, Sisters to the northwest, and La Pine visible to the south of Bend.

A combination of winter range areas are shown to the northwest, west and south of Bend; and also appear to extend inside the Bend UGB. There are no winter range areas shown to the east of the Bend UGB within the 2-mile study area. The winter range areas encompass Sisters and La Pine in their entirety.

The winter range areas shown on this 2009 ODFW map are more expansive than the current boundaries of the Deschutes County Wildlife Area Combining Zone. Bend staff and/or members of the consultant team will follow up with ODFW within the next month to obtain and review more detailed GIS files and also discuss whether this map provides the best available information regarding big game habitat within the study area under OAR 660-023-0110.

This map suggests lands surrounding Bend contain deer and elk winter range, which could be considered in the Bend UGB expansion in Step 3 analysis. It also suggests that any revised UGB expansion scenarios would need to address these issues consistent with Goal 5.

Deschutes County Greenprint

Deschutes County is one of the nation's fastest-growing counties – yet in 2008, the community lacked a comprehensive plan to prioritize lands for conservation and recreation. In response, The Trust for Public Land (TPL) partnered with the Deschutes Land Trust, city administrators, and local parks and recreation departments to create the Deschutes County Greenprint. Guided

by the TPL, volunteers came together to add their expertise and local knowledge to public and academic data about the local landscape, recreation priorities, and balanced growth. The team used the information to create interactive maps that highlight and prioritize key protection areas for important scenic views, wildlife habitat and trail connections – as identified by the local people who use them. It is anticipated that the Greenprint report and maps will help guide future conservation in Deschutes County, from the purchase of land and easements, to improved development planning. See Appendix E for the Greenprint report and maps.

The Greenprint report and maps have not been officially adopted by Deschutes County or the City of Bend. However, the maps illustrate GIS mapping and consideration of multiple resources that generally fall under the umbrella of ESEE and/or Statewide Goal 5, including the following:

- Significant Ecological Areas
- Water Resources
- Scenic Viewsheds
- Wildlife Habitat
- Historic and Cultural Resources
- Trails and Recreation Access

The Greenprint map of "Overall Conservation and Recreation Values" shows higher priority areas (in red and orange) northwest of the Bend UGB that reflect areas with multiple overlapping goals. However, it is important to emphasize that the Greenprint rankings did not include any consideration of priority categories for UGB expansion (e.g. exception lands west of the UGB). Bend might have an opportunity to obtain the GIS mapping information from the Greenprint project and leverage that work to support the analysis and evaluation of Goal 5 resources as part of the UGB process. This work is presented at this time to illustrate a similar GIS analysis as could be performed under Step 3 of the Bend UGB Remand project, and which could be used to predict areas with more or less ESEE related resources.

Options and Recommendations for treatment of ESEE in Step 3 and Compliance with Goal 5

Based on the discussion above, the following options are provided for TAC discussion and direction relating to Goal 5:

Option 1: Rely on the negotiated agreement in the Remand Order

- Assume implementation of Goal 5 "safe harbor" protection for the Scenic Waterway and riparian areas for the Deschutes River and Tumalo Creek *if* the proposed UGB expansion includes those areas
- Doing additional Goal 5 inventory work would be costly, time intensive and may not be necessary under the Remand Order
- Adopt a plan policy and defer site-specific Goal 5 inventories for wetlands on the NWI to the annexation phase

- Known wetlands within the existing UGB are within the Deschutes River corridor and already covered by Goal 5 programs; that is why LCDC did not include wetlands in the negotiated resolution. DLCD staff has indicated that was acceptable and appropriate to delay site-specific inventories of wetlands to the time of development

Option 2: Complete "reconnaissance level" inventory work using available data for the Urban Reserve Area (Recommended by Project Team)

- Focus specifically on Urban Reserve Areas that have not been inventoried by Bend or Deschutes County (GIS analysis and contacts with ODFW). As summarized in the earlier discussion of Goal 5, it is anticipated that inventories need to be supplemented specifically for wildlife habitat and sensitive or threatened wildlife species
- Additional information is important because it affects assumptions regarding buildable land and development capacity within potential UGB expansion areas
- City would be in a better position to conduct an ESEE analysis in Step 3 (when uses are identified for UGB scenarios) and consider options for Goal 5 programs based on more robust Goal 5 inventories for specific UGB expansion scenarios
- Phase 2 could include more inventory work and a higher level of analysis after the analysis of UGB alternatives but prior to a final UGB decision
- Issue – typically, Goal 5 protections for big game habitat has been a focus for county comprehensive plans; are reasonable programs available to protect big game habitat inside the UGB? It would be possible to determine these types of programs after specific UGB expansion proposals to meet anticipated land needs are in place since the program would be based partially on the amount and location of any proposed UGB.
- Option 2 could also consider use of Greenprint data and maps for ESEE evaluation in Step 3 – this could save time and money

Option 3: Address multiple Goal 5 resources associated with the Deschutes River and Tumalo Creek as "Open Space/Scenic"

- Voluntary option for Bend under Goal 5 rule
- Potential opportunity to address the riparian area, a larger buffer and connect open space and trails (a very important community goal) with an integrated "open space/scenic" approach to Goal 5 resources
- Possible opportunities for open space tax credits, etc.
- Likely to be a viable option only with property owner concurrence and support – at this point, there is not an evidentiary basis to support Option 3

Question for the TAC: Does the TAC support the recommended approach to address Goal 5 as outlined in Option 2?

APPROACH TO GOAL 7

Goal 7 Overview

Statewide Planning Goal Context

Statewide Planning Goal 7 addresses areas subject to natural hazards. Natural hazards for purposes of the goal are: floods (coastal and riverine), landslides, earthquakes and related hazards, tsunamis, coastal erosion, and wildfires. It requires local governments to adopt plan provisions and implementation measures that "reduce risk to people and property from natural hazards", by avoiding development in hazard areas where the risk to people and property cannot be mitigated and by prohibiting siting essential facilities, major structures, and hazardous facilities in hazard areas where the risk cannot be mitigated unless necessary for emergency response.

Goal 7 was revised in 2001 to require that LCDC notify local governments about new hazard information generated by the state or federal government "if the new hazard information requires a local response." Local governments must respond to this information within three years of being notified. This issue arose in the 2008 Bend UGB Remand, as described on page20. LCDC has not adopted an administrative rule to implement Goal 7, so there is little additional guidance from the state on what is required of local governments. LCDC has not notified the City of Bend of new hazard information, as was the case in the original expansion.

City of Bend

Chapter 10 (Natural Forces) of the Bend Area General Plan includes a handful of policies to address natural hazards and steep slopes. The plan does not include specific policies addressing wildfire risk. Policies relating to natural hazards are primarily implemented through Development Code Chapter 2.7.600 (Waterway Overlay Zone) for floodplains and Development and Building Code standards relating to development on steep slopes, requirements for geotechnical reports, etc.

Deschutes County

Natural hazards are addressed in Section 3.5 of the 2011 Deschutes County Comprehensive Plan. In 2006, the Deschutes County Hazard Mitigation Plan was the first pre-disaster plan approved by FEMA in Oregon. The Plan identifies wildland fire as the highest natural hazard risk and priority for Deschutes County. This plan is currently in the process of being updated by Deschutes County.

Section 3.5 of the Comprehensive Plan provides background information on several laws and programs relating to management of wildfire risk in Deschutes County, including but not limited to the Federal Healthy Forests Restoration Act, the Oregon Forestland-Urban Interface Fire Protection Act (Senate Bill 360), the Firewise Communities program, and Project Wildfire (a Deschutes County collaborative effort to create long-term wildfire mitigation strategies and provide for a disaster-resistant community).

Seven Community Wildfire Protection Plans (CWWPs) have been adopted for all land in Deschutes County, including a CWPP for the Greater Bend Area. See Exhibit D for the Greater Bend CWWP and Senate Bill 360 hazard ratings for the boundary. Land within the existing UGB and the majority of abutting lands are all identified as High risk, with localized areas of Extreme and High Density/Extreme shown to the south, southeast and northwest. All CWPPs are adopted by reference as part of the 2011 Deschutes County Comprehensive Plan under Policy 3.5.1.b. The latest update to the Bend Area CWWP was adopted by Deschutes County in 2011.

The CWPP for Bend and Senate Bill 360 focus primarily on mitigation measures such as "FireWise" standards and other design considerations, reduction of excess vegetation, creation of fuel breaks, access and water availability. More broadly, however, Policy 3.5.11(a) of the Deschutes County Plan commits to review and revise the County Code as needed to "*Ensure that land use activities do not aggravate, accelerate or increase the level of risk from natural hazards.*"

Direction from LCDC Remand on Goal 7

The Department received objections that the 2008 UGB expansion neither described the risk of wildfire nor acknowledged the recent catastrophic fire near the proposed Westside expansion area. See excerpts from Remand in Exhibit C. Central Oregon LandWatch contended that the CWPP for the Greater Bend Area (2006) was the type of new data that should trigger natural hazard planning. Under Goal 7, the Department had not notified the City of new wildlife hazard information, thereby triggering a city obligation to respond. Under those circumstances, Goal 7 does not *obligate* the City to respond to the wildfire hazard inventory information in the CWPP for the Greater Bend Area.

Goal 2 also requires that plan and implementation measures be coordinated with the plans of affected local governments. Deschutes County did not adopt the 2006 CWPP for the Greater Bend Area as part of its comprehensive plan. (Note: As described above, the 2011 Deschutes County Comprehensive Plan has adopted the CWPPs by reference as part of the County Plan. This includes the 2011 CWPP for the Greater Bend Area). Because the CWPP was not adopted by the county as of 2008, Goal 2 did not *obligate* the City to respond to the wildfire hazard information in the CWPP for the Greater Bend Area.

The Commission concluded that under these circumstances, neither Goals 2 nor 7 required the City to address wildfire risk. This conclusion does not imply that the City should not explain in its findings how it has addressed wildfire risk. It is entirely appropriate and permissible for the City to consider relative risk of wildfire in alternate UGB expansion candidate areas in considering the environmental, energy, economic and social consequences of the alternatives under locational factor 3 of Goal 14. Given that Deschutes County has now adopted CWPPs by reference as part of the 2011 Comprehensive Plan; the City will now be required to address wildfire risk as part of Goal 2 coordination requirements for an amended UGB.

Options and Recommendation for Goal 7 Hazard Areas

Based on state and local requirements and direction from the Remand, the following approach is recommended for Goal 7 hazard areas (see maps in Exhibit A for preliminary areas to consider unbuildable in Step 2 and maps in Exhibit B for preliminary areas to consider in Step 3 ESEE evaluation of boundary alternatives):

- Floods hazard areas: consider 100-year floodplain unbuildable in Step 2 shown on the accompanying maps
- Landslide hazard areas: consider land with 25% and greater slope unbuildable in Step 2 as shown on the accompanying maps
- Wildfire hazard areas: Adopt the 2011 Greater Bend Community Wildfire Protection Plan by resolution, along with new policies in Chapter 2 of the Bend Area General Plan. Consider wildfire risk in Step 3 when assessing ESEE consequences of alternative boundary scenarios; do not exclude as unbuildable

In addition, three options to address wildfire risk are outlined for TAC discussion and direction.

Option 1: Rely on the direction in the Remand Order

- Expand the findings to address wildfire risk

Option 2: Include new policies to address wildfire risk in the Bend General Plan

- Adopt the 2011 CWPP for the Greater Bend Area by reference as part of the final package of UGB plan amendments
- Supplement the discussion of wildlife risk based on the information in the 2011 Deschutes County Comprehensive Plan
- Consider requiring implementation of FireWise standards as part of annexation agreements for UGB expansion

Option 3: Explore more detailed information for relative wildfire risk (Recommended by Project Team)

- Coordinate with research project at OSU to obtained more detailed GIS mapping of relative wildfire risk to supplement information in the CWPP, if available
- Research more detailed evidence to identify characteristics associated with relative wildlife risk (such as topography, access for emergency vehicles, proximity to hydrants or requirements for sprinklers, etc.) to use in the Goal 14 ESEE balancing and comparison of alternative UGB expansion areas
- Explore plan policies and code standards and other approaches and tools to minimize or mitigate wildfire risks
- Address fire risk in Step 3. Use CWPP for now, and pursue more detailed mapping for Step 3 ESEE analysis and comparison of UGB alternatives when more detailed information is available on land needs and relative wildfire risk.

EXHIBIT A

Proposed Unbuildable Land

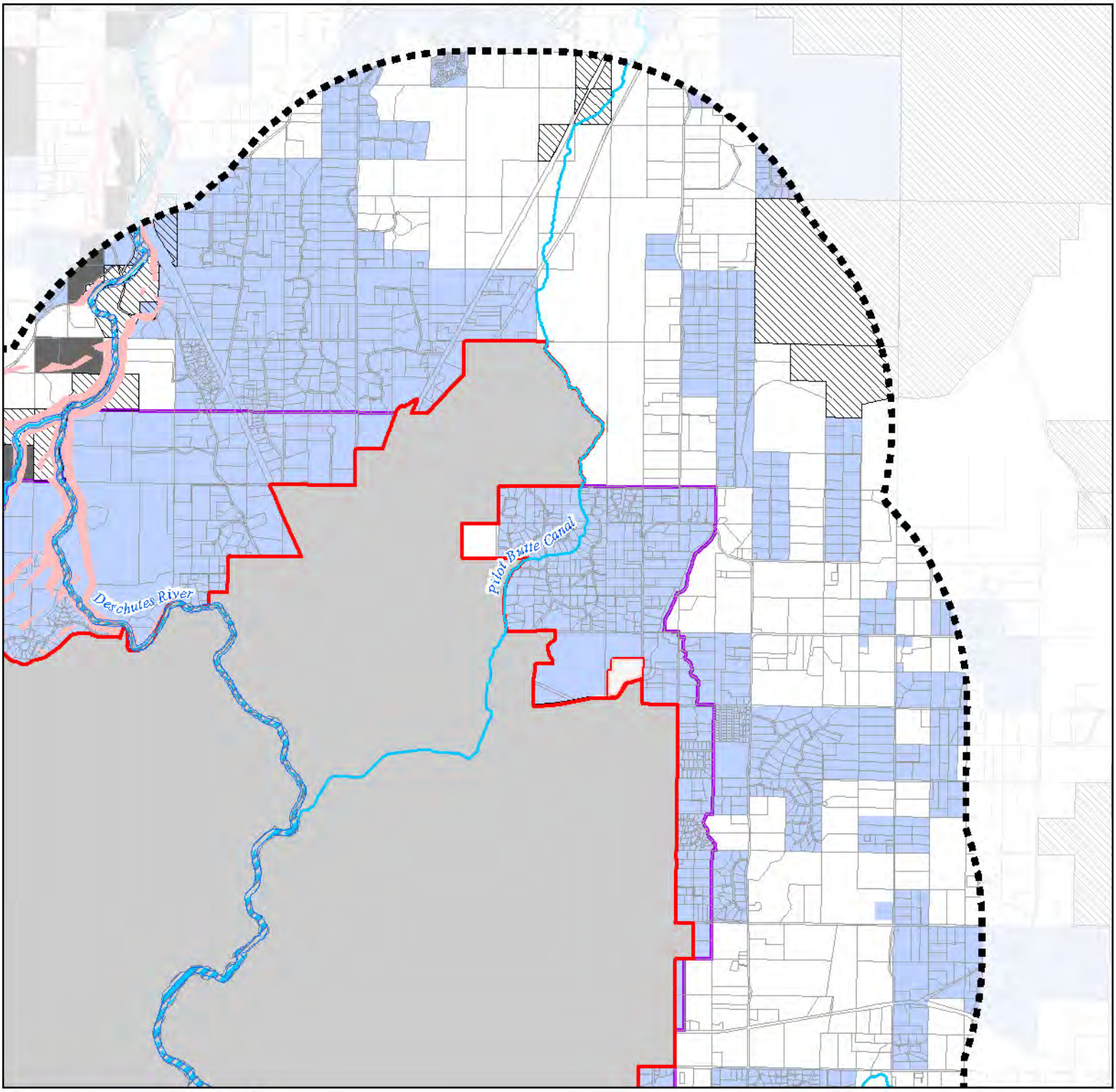
- **NE Quadrant**
- **SE Quadrant**
- **SW Quadrant**
- **NW Quadrant**

Proposed Unbuildable Land (NE Quadrant)

Urban Growth Boundary
2 Miles from UGB
Urban Reserve Area
Exception Land (Priority 2)
Taxlot

Proposed Unbuildable Land
Goal 5 Surface Mining Sites
Streams & Rivers
Riparian Areas - 100' buffer from Deschutes River & Tumalo Creek

100-year floodplain
Steep slopes (over 25%)
Federal Land & State Parks



URBAN GROWTH BOUNDARY REMAND
BEND

Prepared 10/1/2014

0 0.5 1 2
Miles

NORTH

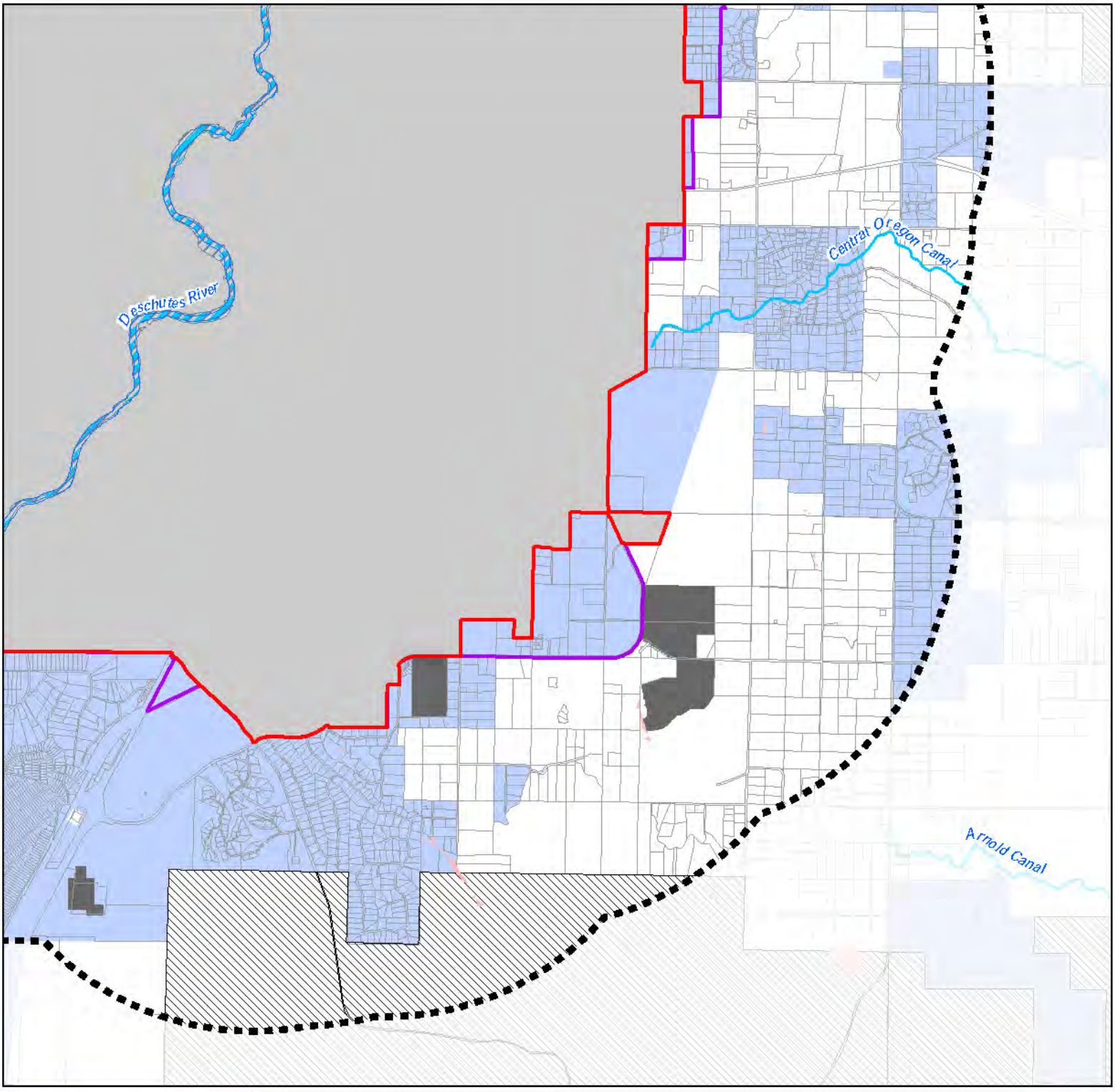
06473

Proposed Unbuildable Land (SE Quadrant)

- Urban Growth Boundary
- 2 Miles from UGB
- Urban Reserve Area
- Exception Land (Priority 2)
- Taxlot

Proposed Unbuildable Land

- Goal 5 Surface Mining Sites
- Streams & Rivers
- Riparian Areas - 100' buffer from Deschutes River & Tumalo Creek
- 100-year floodplain
- Steep slopes (over 25%)
- Federal Land & State Parks



URBAN GROWTH BOUNDARY REMAND

BEND

Prepared 10/1/2014

0 0.5 1 2 Miles

NORTH

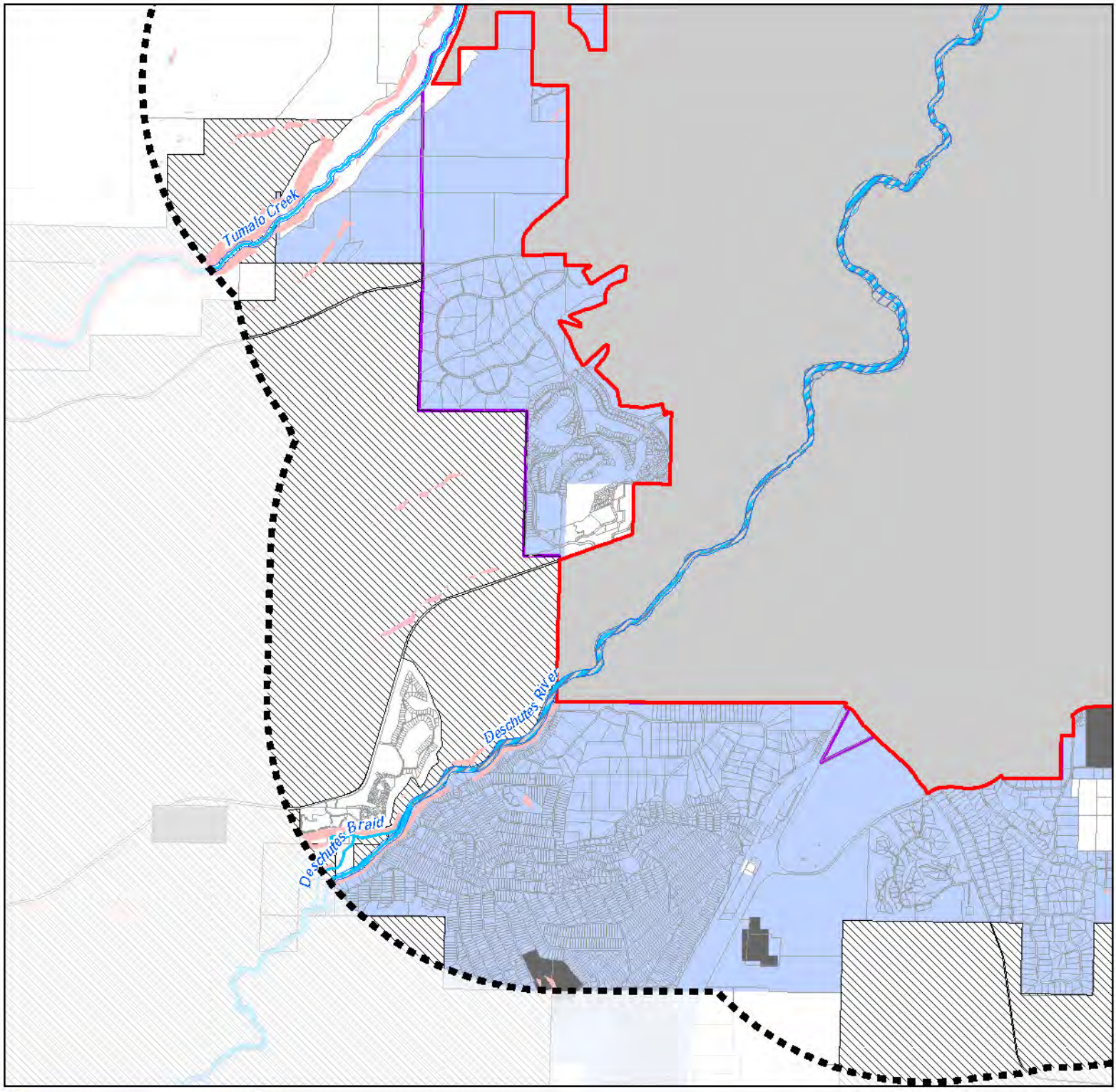
06474

Proposed Unbuildable Land (SW Quadrant)

Urban Growth Boundary
2 Miles from UGB
Urban Reserve Area
Exception Land (Priority 2)
Taxlot

Proposed Unbuildable Land
Goal 5 Surface Mining Sites
Streams & Rivers
Riparian Areas - 100' buffer from Deschutes River & Tumalo Creek

100-year floodplain
Steep slopes (over 25%)
Federal Land & State Parks



URBAN GROWTH BOUNDARY REMAND
BEND

Prepared 10/1/2014

0 0.5 1 2 Miles

NORTH

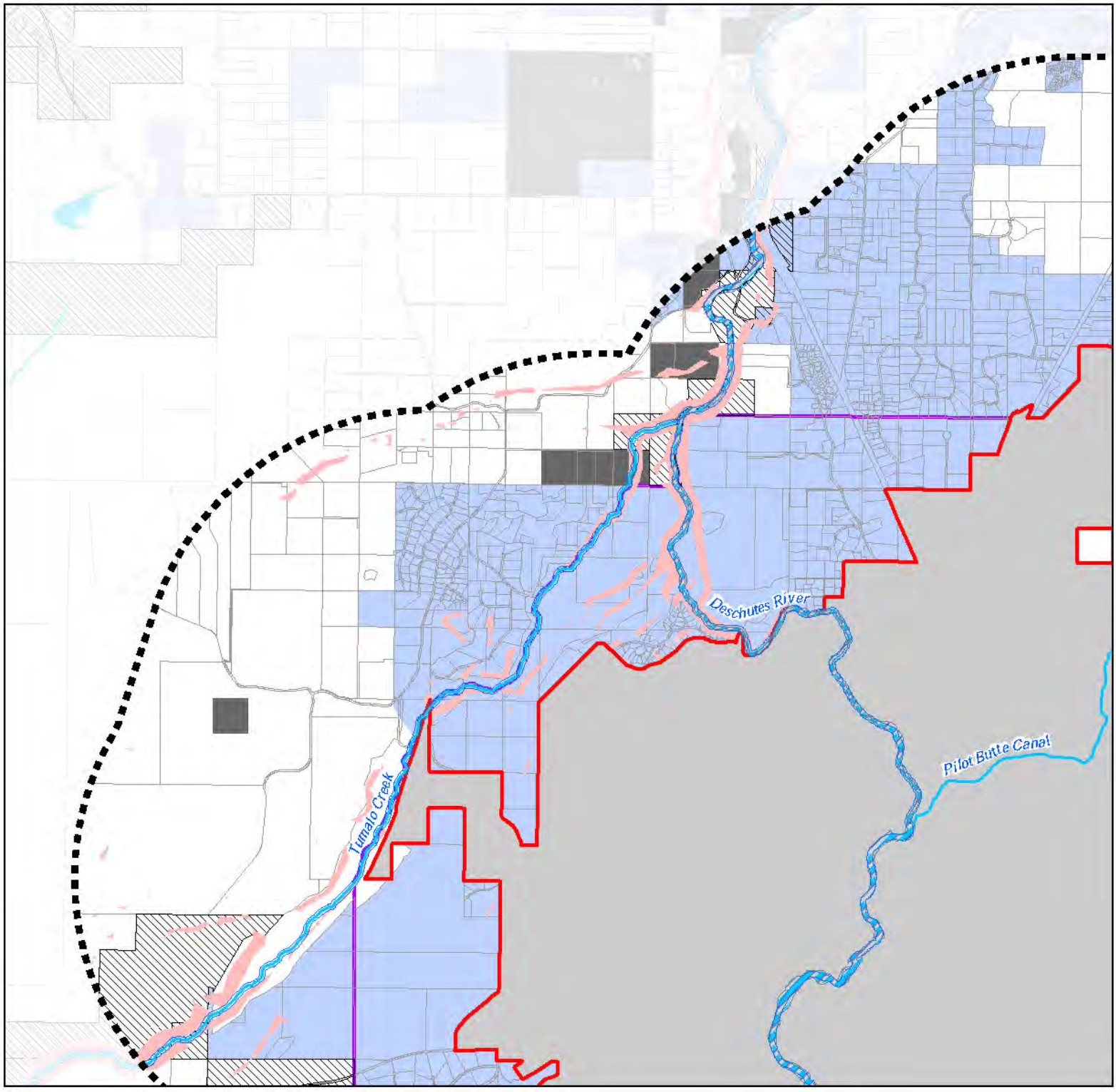
06475

Proposed Unbuildable Land (NW Quadrant)

Urban Growth Boundary
2 Miles from UGB
Urban Reserve Area
Exception Land (Priority 2)
Taxlot

Proposed Unbuildable Land
Goal 5 Surface Mining Sites
Streams & Rivers
Riparian Areas - 100' buffer from Deschutes River & Tumalo Creek

100-year floodplain
Steep slopes (over 25%)
Federal Land & State Parks



URBAN GROWTH BOUNDARY REMAND
BEND

Prepared 10/1/2014

0 0.5 1 2 Miles

NORTH

06476

EXHIBIT B

Proposed Goal 5 & 7 ESEE Considerations

- **NE Quadrant**
- **SE Quadrant**
- **SW Quadrant**
- **NW Quadrant**

Proposed Goal 5 & 7 ESEE Considerations (NE Quadrant)

Urban Growth Boundary
2 Miles from UGB
Urban Reserve Area
Taxlot
Streams & Rivers

Exception Land (Priority 2)

Unbuildable Land

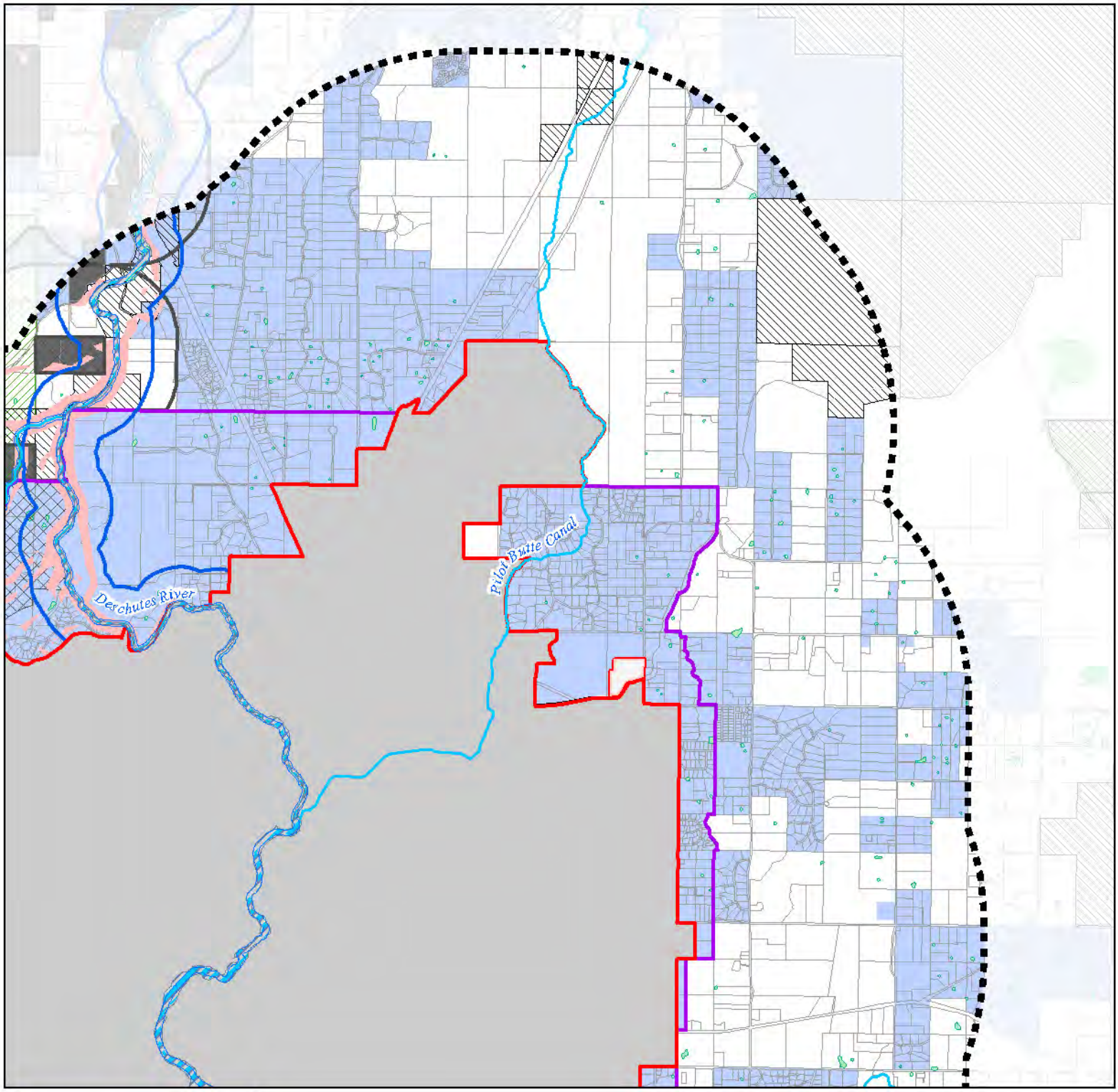
Goal 5 Surface Mining Sites

Federal Land & State Parks
Riparian Areas
100-year floodplain
Steep slopes (over 25%)

ESEE Considerations

Deschutes County Wildlife Area Combining Zone
Surface Mining Zone

Surface Mining Impact Area
National Wetlands Inventory
Deschutes River Scenic Waterway



URBAN GROWTH BOUNDARY REMAND
BEND

Prepared 10/1/2014

0 0.5 1 2 Miles

NORTH

06478

Proposed Goal 5 & 7 ESEE Considerations (SE Quadrant)

Urban Growth Boundary
2 Miles from UGB
Urban Reserve Area
Taxlot
Streams & Rivers

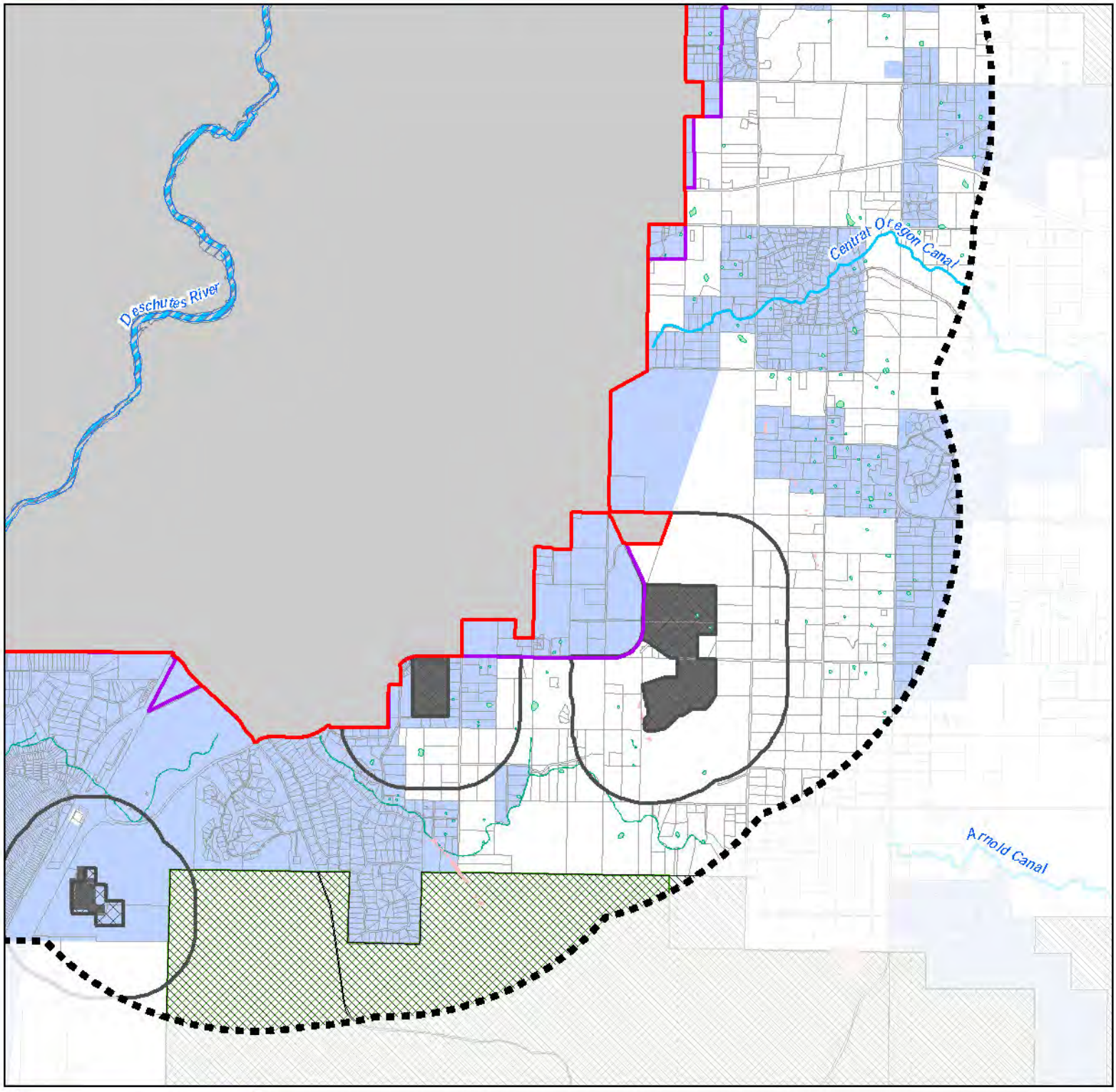
Exception Land (Priority 2)

Unbuildable Land
Goal 5 Surface Mining Sites

Federal Land & State Parks
Riparian Areas
100-year floodplain
Steep slopes (over 25%)

ESEE Considerations
Deschutes County Wildlife Area Combining Zone
Surface Mining Zone

Surface Mining Impact Area
National Wetlands Inventory
Deschutes River Scenic Waterway



URBAN GROWTH BOUNDARY REMAND

Prepared 10/1/2014

0 0.5 1 2 Miles

NORTH

06479

Proposed Goal 5 & 7 ESEE Considerations (SW Quadrant)

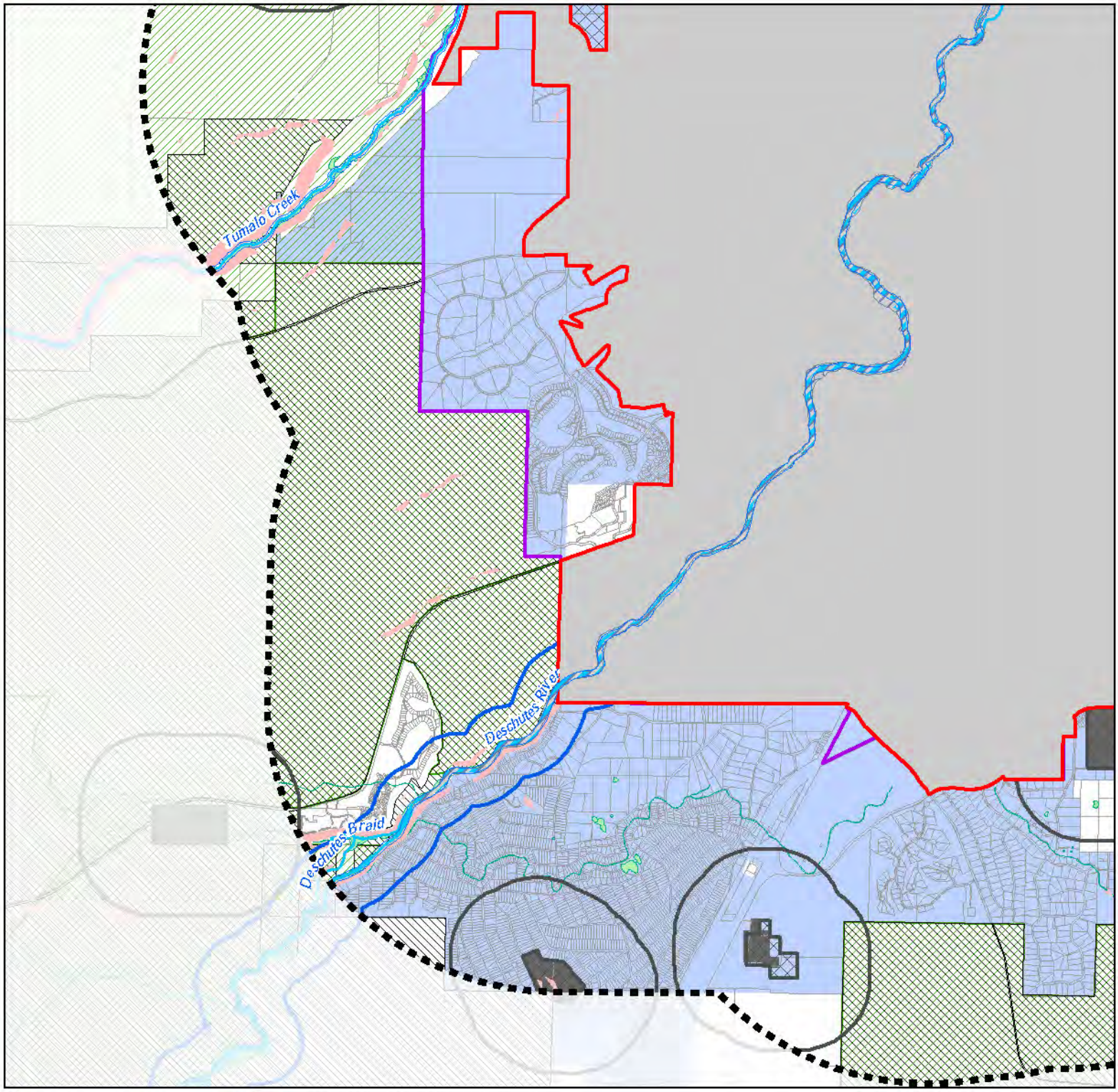
- Urban Growth Boundary
- 2 Miles from UGB
- Urban Reserve Area
- Taxlot
- Streams & Rivers
- Exception Land (Priority 2)

Unbuildable Land

- Goal 5 Surface Mining Sites
- Federal Land & State Parks
- Riparian Areas
- 100-year floodplain
- Steep slopes (over 25%)

ESEE Considerations

- Deschutes County Wildlife Area Combining Zone
- Surface Mining Zone
- Surface Mining Impact Area
- National Wetlands Inventory
- Deschutes River Scenic Waterway



URBAN GROWTH BOUNDARY REMAND

Prepared 10/1/2014

0 0.5 1 2 Miles

NORTH

06480

Proposed Goal 5 & 7 ESEE Considerations (NW Quadrant)

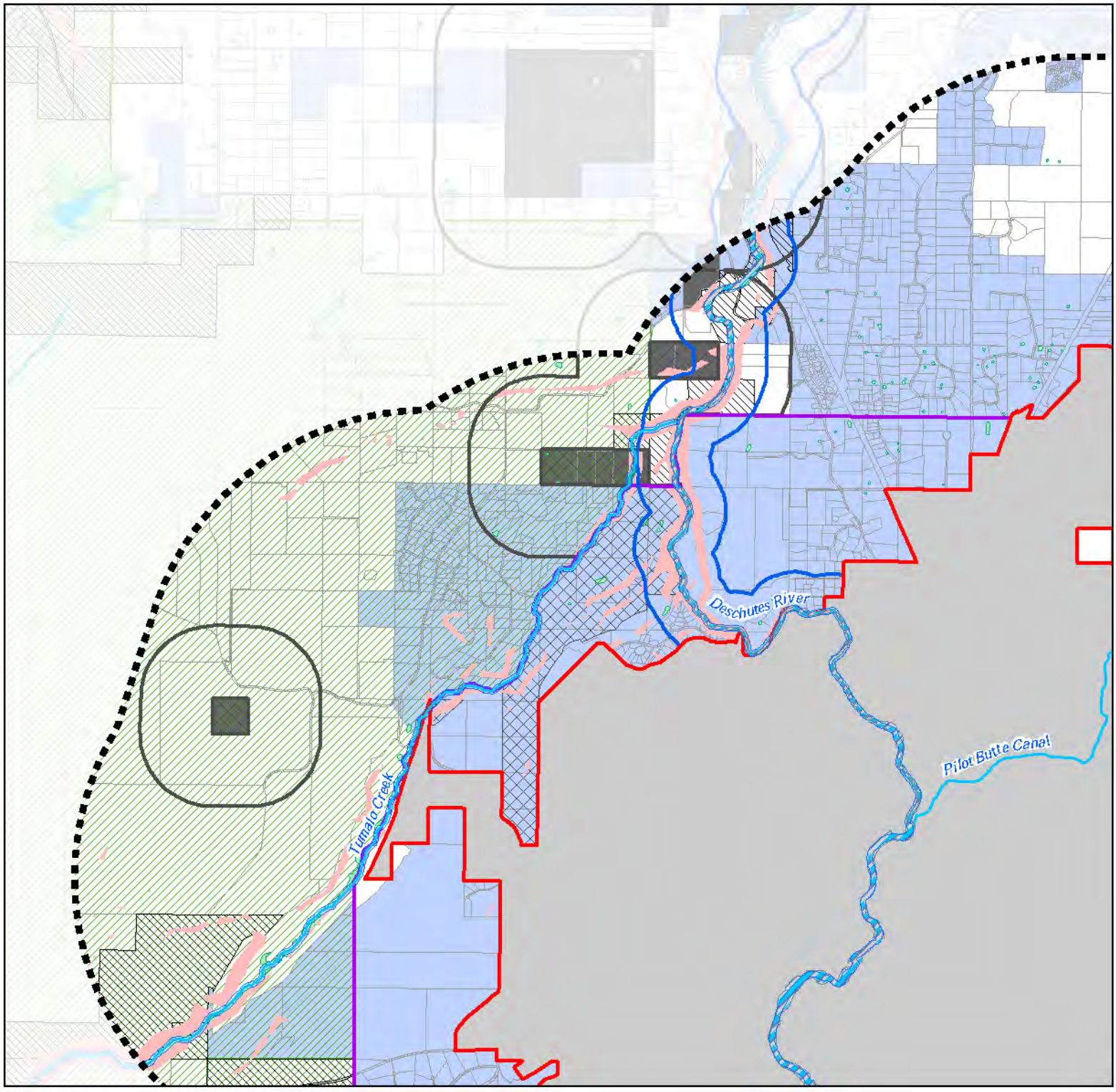
- Urban Growth Boundary
- 2 Miles from UGB
- Urban Reserve Area
- Taxlot
- Streams & Rivers
- Exception Land (Priority 2)

Unbuildable Land

- Goal 5 Surface Mining Sites
- Federal Land & State Parks
- Riparian Areas
- 100-year floodplain
- Steep slopes (over 25%)

ESEE Considerations

- Deschutes County Wildlife Area Combining Zone
- Surface Mining Zone
- Surface Mining Impact Area
- National Wetlands Inventory
- Deschutes River Scenic Waterway



URBAN GROWTH BOUNDARY REMAND

BEND

Prepared 10/1/2014

0 0.5 1 2 Miles

NORTH

06481

MENTS
DEAS

employment

limited Sewer

complete neighborhood

Too Hard to redevelop

complete neighborhood

complete neighborhood with ECC

complete neighborhood

5th Class

Complete neighborhood

complete neighborhood

OMMENTS
BIG IDEAS

CHAOS

MASTER PLAN

MASTER PLAN

MASTER PLAN

Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally weighted sum of the four Baird UGB Goal 14 Factors. For informational purposes only.

MMENTS
G IDEAS

Complete Neighborhoods

Bill Wagner

Some group members have concerns about fire

IMPROVED ACCESS

JOHN DOTSON

Steven Hultberg

Rim Rock

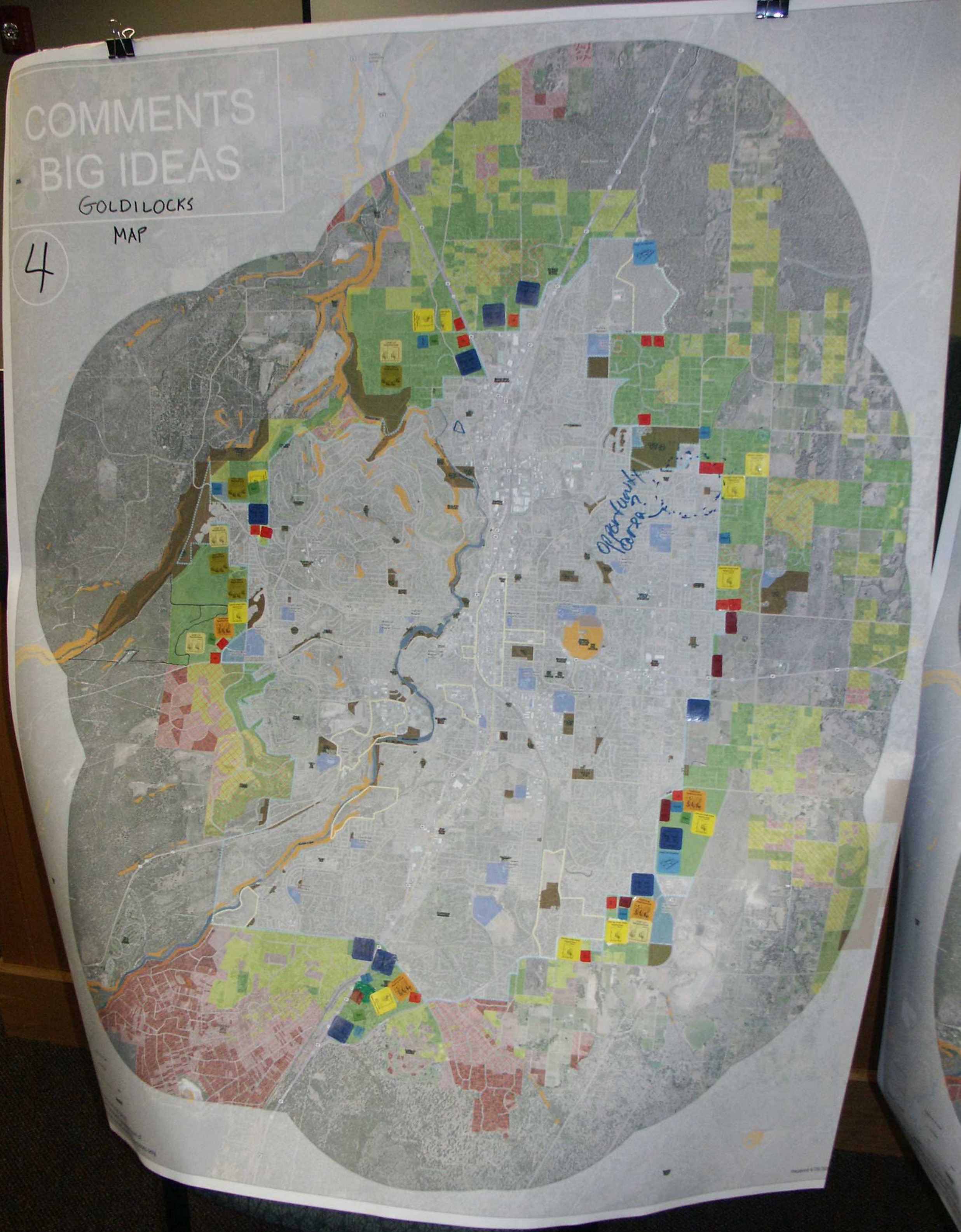
Service Layer Credits: Deschutes County GIS (2014)
Disclaimer: This map represents an equally-weighted sum of
the four listed UGB Goal 14 Factors. For informational purposes only.

COMMENTS
BIG IDEAS

GOLDILOCKS

MAP

4



COMMENTS
BIG IDEAS

5

Concern for transportation and safety

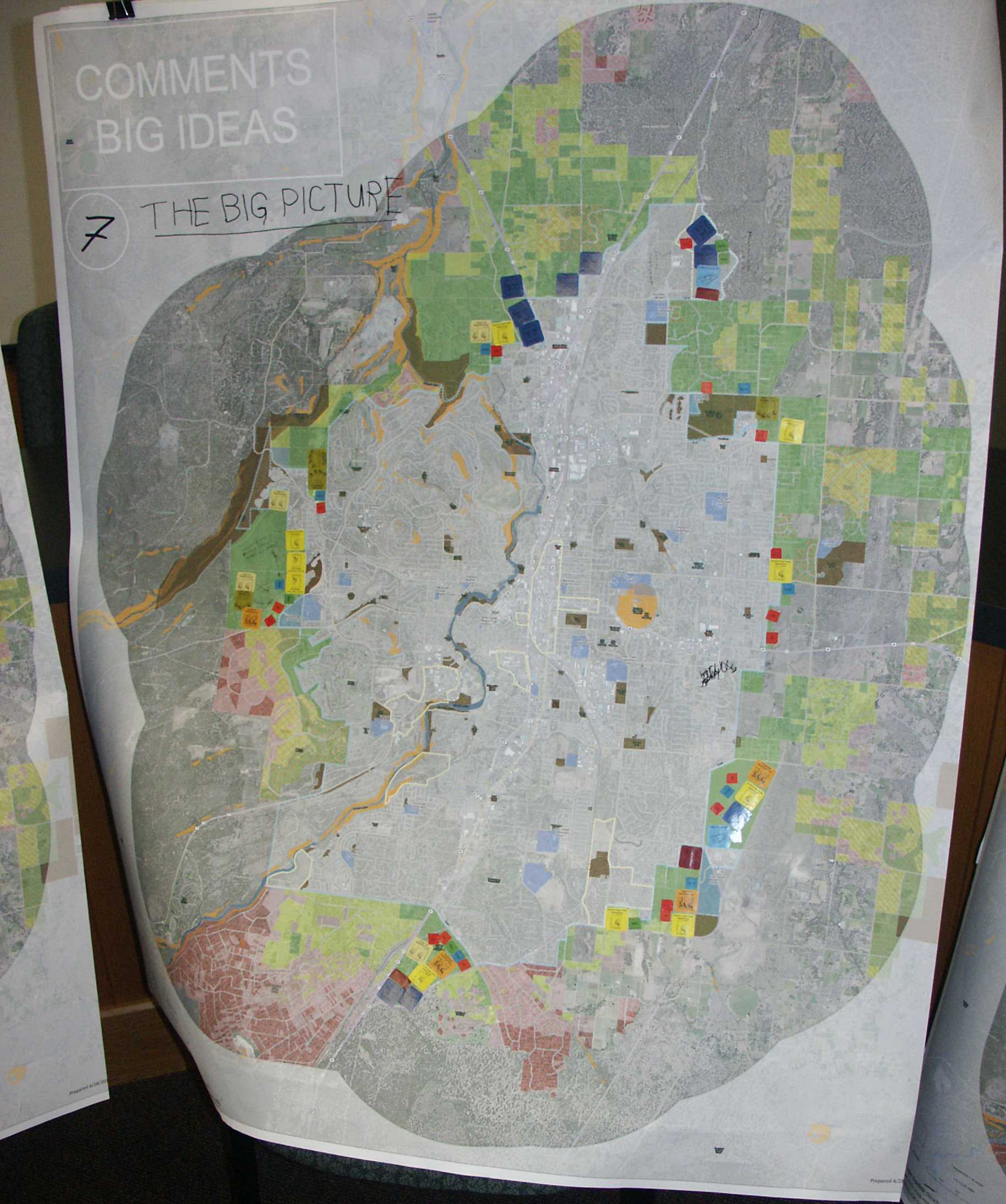
Preserving open space on west side

Prepared 4/24/2014

Data Source: Deschutes County GIS (2014)
Map represents an equally weighted sum of
the following 14 Factors. For informational purposes only.

COMMENTS
BIG IDEAS

7 THE BIG PICTURE



UL NW CORNER
OF ROOM

BRIEFING PACKET

URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

JOINT TAC / USC WORKSHOP

December 15, 2014

06488

URBAN GROWTH BOUNDARY REMAND

MAKING BEND EVEN BETTER

Current UGB Workshop

Briefing Packet

December 10, 2014

CONTENTS

Background memos/documents attached for reference:

- Base case briefing paper from Residential TAC 4
- Relevant remand / statutory requirements
- Juniper Ridge fact sheet from TAC 4
- Development code efficiency measures from Residential TAC 4, updated per TAC input
- Project goals
- MetroQuest summary

ABOUT THE WORKSHOP

Overview and Purpose

Working within the current UGB, the purpose of the workshop is to:

a. **Identify opportunities and preferences for how Bend should grow and change within the current UGB.** Using the concept of "urban form", workshop participants will identify ideas and options for how Bend might change over time to achieve the project goals and address Remand requirements (e.g. residential efficiency measures, employment redevelopment areas).

b. **Work together.** The workshop will engage the Residential TAC, Employment TAC, and UGB Steering Committee in creating scenarios for growth within the current UGB. TAC recommendations will be brought together as the starting point for discussions.

c. **Direct the project team.** Participants will provide policy-level direction to the project team regarding ideas to be tested for growth and change within the current UGB. The team will follow up on that direction by creating and evaluating several scenarios using the Envision Tomorrow modelling tool. Results will be brought back for TAC discussion in January.

The workshop is targeted to members of the Residential TAC, Employment TAC, and UGB Steering Committee. The Boundary TAC will be invited to observe. The workshop is also open to the public to attend and observe. However, they will not participate directly in the table discussions. If time allows, a comment period can be provided at the end of the workshop.

Why Urban Form?

"Urban form" refers to the pattern and organization of development in the city. Urban form diagrams are a helpful short-hand way to plan and "see" the shape of the city as we examine various growth strategies and Remand requirements. Urban form also helps recognize the rich variety of places within Bend, much better than is captured in zoning designations. The following are the three basic urban form categories and the working types within each category.

Neighborhoods – historic, traditional, mixed suburban, single family suburban, large lot

Centers and Corridors – major commercial corridors, urban mixed use centers, local centers and corridors

Employment Districts – institutional, medical center, industrial/professional office, mixed employment

Through the language and graphics of urban form, we can explore fundamental questions that will inform the City's response to the Remand. Examples include:

- Where are Bend's commercial and mixed use centers today and how will they grow in the coming years?
- Where are the opportunities for new commercial and mixed use centers?
- Which neighborhoods are appropriate for accommodating additional housing mix and/or density?
- Which neighborhoods are fine as they are and shouldn't expect much change?
- How can land use support future transit and travel options?
- As various employment areas redevelop, what do we want them to look like?

Finally, in addition to helping answer place-specific questions, urban form helps to put all of the pieces together. This will create a cohesive vision with clear growth and livability strategies that will underlie the urban growth boundary expansion and update of the Bend General Plan.

The project team presented preliminary urban form diagrams at the October 9 All-TAC meeting and at the TAC 3 meetings. They have been updated for use in the workshop.

How Does This Fit into the Remand and other Legal Requirements?

State statute and the LCDC Remand both require that the city consider "efficiency measures" to increase the capacity of the existing UGB as part of demonstrating that the documented housing and employment needs cannot reasonably be met within the existing UGB. Details of the requirements are provided in the attached memorandum titled "Remand and Legal Requirements Relevant to the Current Urban Growth Boundary Workshop".

The Big Questions

The workshop will produce maps and lists of ideas about where the City should focus growth within the current UGB. The big picture question for participants to address is: ***What is the intended future urban form within the current UGB?*** That is, what are the planned land uses and forms of development in Bend's varied neighborhoods, centers and corridors, and employment districts.

Stated in Remand terms, the overarching question is: ***Where should we apply efficiency measures to focus growth differently than the current General Plan, and why?*** In this context, we are focusing on how things may change in selected areas compared to the "base case".[1] Other areas are "stable" and will develop (or not) per the General Plan and the market.

For this workshop and the subsequent analysis, the answers to the above can be options, not a single answer. From this perspective, the question is: ***What are the ideas the project team should test?***

The time frame for these questions must recognize the Remand planning period (through the year 2028), but not be constrained by it. Workshop participants should think long term: 20+

[1] Please see Base Case Briefing Paper for additional information. As used here, base case means the amount and type of growth expected based on past trends and the currently adopted Bend General Plan.

years. As part of the post-workshop analysis, the team will estimate the growth in all areas through the year 2028.

Specific Goals

- Endorse or refine recommendations from both TACs for specific residential and employment opportunity areas identified in previous TAC meetings.
- Identify any other areas (e.g. along current and future transit corridors, in/near employment areas, or in/near mixed use centers) where the group would like to see or evaluate a different future urban form than the base case and recommend an alternative future urban form for those areas.
- As a refinement of the urban form typologies, identify any areas that should be priorities for pedestrian-oriented and/or transit-oriented future development.

HOW WE GOT HERE: SUMMARY OF PROGRESS TO DATE

This meeting is a bridge between the work of the TACs and USC in summer and fall of 2014 and the framing of recommendations for Phase 1 of the project. The diagrams on the following page show where we are in the process.

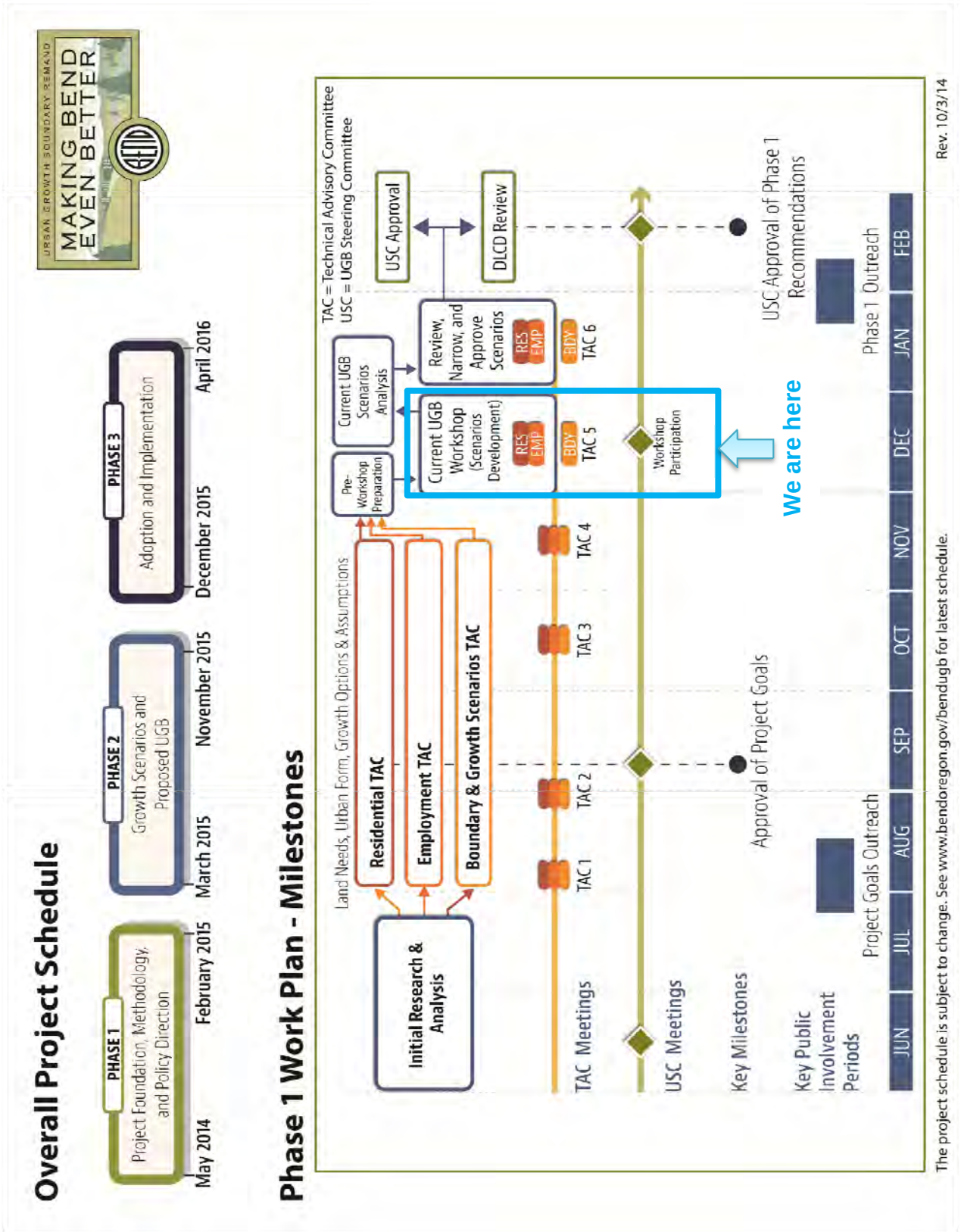
The TACs, USC and public involvement process have made significant progress to set the stage for the workshop since the project began in June, 2014. The following is a brief summary.

TAC Meetings 1 and 2 and the September USC Decisions

In their start-up meetings in August, the TACs completed a set of preliminary recommendations that were approved by the USC on September 4, 2014. The topics approved are summarized below.

- Housing need and mix
- Market factor for employment lands
- Use of suitability criteria for screening of expansion areas
- Aggregation of lands for alternatives analysis
- Study area map
- Applicability of McMinnville case to Bend's boundary methodology
- Evaluation measures for Goal 14: Factor 1 - efficient accommodation of identified land need (preliminary recommendation)

Please see the city's website (http://www.bendoregon.gov/index.aspx?page=52&parent=18146) for the USC's meeting summary and specific memoranda.


URBAN GROWTH BOUNDARY REMAND
MAKING BEND EVEN BETTER
Overall Project Schedule
PHASE 1
Project Foundation, Methodology, and Policy Direction
May 2014
February 2015
PHASE 2
Growth Scenarios and Proposed UGB
March 2015
November 2015
PHASE 3
Adoption and Implementation
December 2015
April 2016
Phase 1 Work Plan - Milestones
TAC = Technical Advisory Committee
USC = UGB Steering Committee
Land Needs, Urban Form, Growth Options & Assumptions
Initial Research & Analysis
Residential TAC
Employment TAC
Boundary & Growth Scenarios TAC
Pre-Workshop Preparation
Current UGB Scenarios Analysis
Current UGB Workshop (Scenarios Development)
RES EMP
BDY
Review, Narrow, and Approve Scenarios
RES EMP
BDY
USC Approval
DLCD Review
TAC 1
TAC 2
TAC 3
TAC 4
TAC 5
TAC 6
Workshop Participation
We are here
TAC Meetings
USC Meetings
Key Milestones
Approval of Project Goals
USC Approval of Phase 1 Recommendations
Key Public Involvement Periods
Project Goals Outreach
Phase 1 Outreach
JUN
JUL
AUG
SEP
OCT
NOV
DEC
JAN
FEB
The project schedule is subject to change. See www.bendoregon.gov/bendugb for latest schedule.
Rev. 10/3/14

TAC progress in October and November

- The Residential TAC accomplished:
  - Input into assumptions for the buildable land inventory
  - Input into assumptions for a reference base case (existing UGB, as of 2014)
  - Review of "opportunity sites" (vacant/mostly vacant sites over five acres)
  - Review of a range of potential efficiency measures, including code-related efficiency measures that might apply city-wide in all or selected residential zones.

- The Employment TAC accomplished:
  - An analysis of the redevelopment potential of commercial, industrial and mixed use areas – strategies for 13 areas in the city.
  - Discussion of special site needs: medical, university, and large lot industrial

- Both TACs participated in discussing diagrams of Bend's existing urban form, which provides a framework description of today's neighborhoods, centers and corridors, and employment districts (at the Oct 9 All-TAC meeting and TAC 3 meetings).

Public outreach to date

- MetroQuest on-line survey – 1500 views, 1000 comments related to Project Goals and strategies, as well as location-specific comments, see the project web page (www.bendoregon.gov/bendugb)
- Two open house meetings in July, 2014, orienting people to the project structure and overall goals and encouraging participation in MetroQuest
- Speakers bureau meetings providing specific community groups with basic information about the project and opportunities to comment and inform their member - 11 meetings
- Bend Voice participation - seven questions to date related to specific TAC discussion issues
- UGB drop-in meetings – visits by the general public at four informal drop-in meetings
- Presentations to community groups and agencies – numerous presentations to a variety of groups

WHERE WE GO NEXT: HOW WORKSHOP INPUT WILL BE USED

The direction provided in the workshop will be an initial step toward meeting Remand requirements, planning the UGB expansion, and eventually updating the General Plan.

After the workshop, the project team is tasked with packaging the maps and ideas into scenarios. Scenarios are alternative land use and transportation plans – options that can be analyzed using the Envision Tomorrow modelling tool. The team will focus on "areas of change", i.e. those areas which might grow differently than currently designated by the General Plan. Much of the City has established development patterns, streets and open spaces that are

built out or not expected to change in the years ahead – these areas will be evaluated using the General Plan as the underlying assumption.

The workshop outcomes, and current UGB scenarios, will not be set in stone. Starting in January, they will be discussed by the TACs, refined, and narrowed to Phase 1 recommendations to be considered by the UGB Steering Committee. The project team expects this will be a "bookended" range of growth potential within the current UGB. In Phase 2 of the project, when expansion areas are evaluated, the Phase 1 recommendations may be refined.

Memorandum

November 10, 2014

To:	Residential Lands Technical Advisory Committee Employment Lands Technical Advisory Committee
Cc:	Bend Staff
From:	APG Consulting Team
Re:	Base Case UGB Capacity Approach

INTRODUCTION

What is the "Base Case"?

The "Base Case" is a spatial projection of housing and employment growth through 2028 within the current UGB based on past trends and current policies, utilizing the Envision Tomorrow model. The Base Case represents the current UGB's remaining capacity **prior** to applying assumptions regarding new residential efficiency measures and measures to encourage additional redevelopment of employment areas. It does not identify housing or employment need; rather, it provides an estimate of how much of the identified need[1] we can expect to be met within the current UGB if no policy changes are made.

What is the purpose of the Base Case?

The reason to create a Base Case is two-fold: first, to understand the remaining UGB capacity as of 2014 if no policy changes were made; and, second, to compare the impacts of alternatives that incorporate efficiency measures for how they change UGB capacity, travel behavior (and vehicle miles traveled), and other indicators relevant to the Project Goals.

How does the Base Case relate to policy documents?

The team's working assumption is that the Base Case will be consistent with information on past trends documented in the draft Housing Needs Analysis (HNA), residential Buildable Lands Inventory (BLI), and Economic Opportunities Analysis (EOA). Exactly where the results of the Base Case get documented is yet to be determined – they may be captured in the HNA and

[1] Note that the housing and employment need for the period from 2014 through 2028 will need to be adjusted from the original 20-year projections to account for housing and employment growth that has occurred since 2008. That growth has met some portion of the need for various types of housing and jobs. The team will examine how much housing by type has been developed between 2008 and 2014, and then subtract these from the projected needed housing by type; the remaining need (the difference between the original projection and the increment added since 2008) is what will be compared against the UGB capacity. A similar update will be done for employment, subtracting the net job growth between 2008 and 2014 from the projected job growth through 2028 to estimate remaining employment growth.

EOA, or they may be summarized in an "Urbanization Report" that focuses on how the housing and employment needs identified in the HNA and EOA will be met.

Discussion Questions for Technical Advisory Committees

The Residential Lands Technical Advisory Committee (Residential TAC) and Employment Lands Technical Advisory Committee (Employment TAC) are asked to review the approach and general assumptions summarized below and endorse or suggest revisions to this approach.

BASE CASE ASSUMPTIONS

Land Base

The Base Case will utilize an updated 2014 buildable lands inventory, developed using the definitions and assumptions detailed in the two BLI policy issue memorandums (refined based on TAC direction as needed).

Assumptions about Future Residential Development

In general, assumptions about the amount, type and density of residential development expected within each zone will be based on analysis of "the amount and type of development that has occurred on the vacant and redevelopable lands since [the city's] last periodic review," as required by the Remand.[2] This analysis has largely been done for the 1998-2008 period (the period from the city's last period review to the time of the Remand) as part of the work to date to update the BLI and HNA. The city's continued reliance on the 1998-2008 data analysis is justified because the residential development in the city since 2008 has largely been limited to building individual homes on lots created before 2008, due to the economic downturn.[3] This means that the density for the development was set prior to 2008 for nearly all recent residential building activity.

Development in Residential Zones on Vacant Land

- **Vacant parcels that are large enough to be allowed to develop with more than one unit and are not subject to CC&Rs restricting infill**:
  - Rely on observed housing mix in each zone/plan designation for 1998-2008[4]
  - Rely on observed net density for each housing type in each zone/plan designation for 1998-2008 (or minimum density, where above observed density)[5]
  - Rely on gross-to-net acreage reductions in line with the right-of-way factor and other land needs factors established in the HNA and EOA (may vary by parcel size and/or zone)

[2] Land Conservation and Development Commission (LCDC) Remand Order, page 26.

[3] Land use permit data indicates roughly a dozen residential subdivisions and two multi-family development projects approved since 2008, all in 2013 and 2014, compared to between 600 and 700 single family homes built since 2008 on platted lots.

[4] See Attachment A to City's BLI memo.

[5] See Attachment A to City's BLI memo.

- **Vacant parcels that are not large enough to be allowed to develop with more than one unit or subject to CC&Rs restricting infill:** assume one unit per parcel

Development in Residential Zones on Land "Developed with Infill Potential"

- Use observed trend data to estimate % of these acres likely to experience infill by parcel size and zone
- Use observed trend data to estimate mix and density of infill development by parcel size and zone[6] (or minimum density, where above observed density)

Development in Residential Zones on "Partially Vacant" Land

- Use trend data to estimate % of these acres likely to experience additional development by zone[7]
- Observed net density for each housing type in each zone/plan designation (or minimum density, where above observed density)[8]

Development in Residential Zones on "Developed" Land

- Assume no redevelopment on land that is classified as developed – this land does not have additional capacity for growth based on the zoning, existing development, and/or restrictions such as CC&Rs.

Development in Commercial and Mixed Use Zones

- Use trend data to estimate amount of residential development expected through new development and/or redevelopment
- Observed net density for each housing type in each zone/plan designation[9]

Assumptions about Future Employment Land Development

In general, assumptions about the amount, type and density of employment land development on vacant land will be based on historical trends analysis for various sub-categories of land, except for redevelopment, which will be estimated as has been described in previous memos to the Employment TAC. Much of the historic trend work was done for the 1998-2008 period as part of the EOA and, with few exceptions, the Remand does not require that it be re-done.

Development on Vacant Employment Land

- Observed employment density & mix of employment types by plan designation[10]

---

[6] See City's BLI memo, page 15. This analysis will need to be updated to account for exclusion of land with restrictive CC&Rs.

[7] See City's BLI memo, page 14. May need to be updated to estimate as a percent of land classified as Partially Vacant.

[8] See Attachment A to City's BLI memo.

[9] See City's BLI memo, pages 17-18. In addition to the MR and ME zones, which were addressed in the BLI memo, a new analysis of residential development in other employment zones will need to be done for the 1998-2008 period.

[10] See EOA Table 37, page 105.

- Factor in gross-to-net conversions based on assumptions from the EOA: 1) private and public rights-of-way, and 2) land for institutional, private open space, and other land, and 3) vacancy rate[11]

Redevelopment in Industrial / Mixed Employment and Commercial and Mixed Use Zones

- Updated redevelopment analysis by district based on current zoning and achievable rent levels, as described to the Employment Lands Technical Advisory Committee in other memos

TEAM RECOMMENDATION

The team recommends that the TAC approve the above-recommendations (or as modified by TAC discussion) for use in the Base Case analysis.

[11] See EOA pages 108-109 for assumptions on rights-of-way and lands for institutional/open space uses. Vacancy Rate was updated by the Remand Task Force (see July 28, 2011 Remand Task Force materials on Remand Subissue 5.6).

Memorandum

December 9, 2014

To:	Residential Lands Technical Advisory Committee Employment Lands Technical Advisory Committee Urban Growth Boundary Steering Committee
Cc:	City Staff
From:	APG Consulting Team
Re:	Remand and Legal Requirements Relevant to the Current Urban Growth Boundary Workshop

INTRODUCTION

The Current Urban Growth Boundary Workshop is intended to explore what the city can reasonably do to further accommodate the identified housing and employment needs inside the existing Urban Growth Boundary (UGB). This is required under state statute (Oregon Revised Statutes or ORS), administrative rule (Oregon Administrative Rules or OAR), and the Land Conservation and Development Commission's Remand to the City of Bend on its UGB expansion (Remand). The relevant requirements are summarized in this memorandum.

REQUIREMENTS TO CONSIDER CHANGES INSIDE THE UGB

State statute (ORS 197.296) requires cities to consider land use efficiency measures if the housing needs analysis finds that the City may not meet identified housing needs. Specifically, the statute states (emphasis added):

> *(6) If the housing need... is greater than the housing capacity..., the local government shall take one or more of the following actions to accommodate the additional housing need:*
>
> *(a) Amend its urban growth boundary to include sufficient buildable lands to accommodate housing needs for the next 20 years. As part of this process, the local government shall consider the effects of measures taken pursuant to paragraph (b) of this subsection. ...*
>
> *(b) Amend its comprehensive plan, regional plan, functional plan or land use regulations to include new measures that demonstrably increase the likelihood that residential development will occur at densities sufficient to accommodate housing needs for the next 20 years without expansion of the urban growth boundary. A local government or metropolitan service district that takes this*

> *action shall monitor and record the level of development activity and development density by housing type following the date of the adoption of the new measures; or*
>
> *(c) Adopt a combination of the actions described in paragraphs (a) and (b) of this subsection.*

The Remand specifically addresses the question of whether ORS 197.296 "gives the City the choice of whether to accommodate future need for residential land by expanding its UGB or adopting new measures" – it does not. Per the Remand, "Goals 10 and 14, and ORS 197.307(3), require the city to consider and explain why its determination of capacity based on existing measures is reasonable, and why other, new, measures are not reasonable."[1]

Statute also requires local governments to adopt zoning and other measures to ensure that the identified housing needs, including mix and density, can be met:

> ORS 197.296(7):*...the local government shall determine the overall average density and overall mix of housing types at which residential development of needed housing types must occur in order to meet housing needs over the next 20 years. If that density is greater than the actual density of development..., or if that mix is different from the actual mix of housing types..., the local government, as part of its periodic review, shall adopt measures that demonstrably increase the likelihood that residential development will occur at the housing types and density and at the mix of housing types required to meet housing needs over the next 20 years.* (emphasis added)
>
> ORS 197.307(3): *When a need has been shown for housing within an urban growth boundary at particular price ranges and rent levels, needed housing shall be permitted in one or more zoning districts or in zones described by some comprehensive plans as overlay zones with sufficient buildable land to satisfy that need.*

The Remand underlines and clarifies the city's obligations under these statutes:

> *...the Commission also wants the City to understand that it was not persuaded that the City is meeting its obligations under Goals 10 and 14, and ORS 197.307(3) to plan for an adequate amount of land for needed housing, particularly for land in plan districts that authorize multifamily housing.* [2]

Goal 14 includes the requirement that:

[1] LCDC Remand, page 53.

[2] LCDC Remand, page 53.

> *Prior to expanding an urban growth boundary, local governments shall demonstrate that needs cannot reasonably be accommodated on land already inside the urban growth boundary.*

In addition, Oregon Administrative Rule (OAR) 660-024-0050, for UGBs, states:

> *(1) When evaluating or amending a UGB, a local government must inventory land inside the UGB to determine whether there is adequate development capacity to accommodate 20-year needs determined in OAR 660-024-0040. ...*
>
> *(4) If the inventory demonstrates that the development capacity of land inside the UGB is inadequate to accommodate the estimated 20-year needs determined under OAR 660-024-0040, the local government must amend the plan to satisfy the need deficiency, either by increasing the development capacity of land already inside the city or by expanding the UGB, or both, and in accordance with ORS 197.296 where applicable. Prior to expanding the UGB, a local government must demonstrate that the estimated needs cannot reasonably be accommodated on land already inside the UGB. If the local government determines there is a need to expand the UGB, changes to the UGB must be determined by evaluating alternative boundary locations consistent with Goal 14 and OAR 660-024-0060.* (emphasis added)

The Remand also emphasizes the City's obligation to further demonstrate why needs cannot be accommodated inside the UGB:

> *"... under Goal 14, the city must consider taking additional steps to plan for its projected future residential land needs within its urban growth boundary and show that such steps are not reasonable before expanding its boundary..."*[3] (emphasis in original)
>
> *"On remand, the City should address ... existing and potential future measures in determining the projected residential capacity of lands within its prior UGB in order to assure that it is complying with the Goal 14 'reasonably accommodate' standard."*[4]

WHAT MUST BE CONSIDERED?

Residential Efficiency Measures

ORS 197.296 identifies a list of potential efficiency measures related to accommodating housing need:

> *Actions or measures, or both, may include but are not limited to:*

[3] LCDC Remand, page 52.

[4] LCDC Remand, page 52, footnote 20.

(a) Increases in the permitted density on existing residential land;

(b) Financial incentives for higher density housing;

(c) Provisions permitting additional density beyond that generally allowed in the zoning district in exchange for amenities and features provided by the developer;

(d) Removal or easing of approval standards or procedures;

(e) Minimum density ranges;

(f) Redevelopment and infill strategies;

(g) Authorization of housing types not previously allowed by the plan or regulations;

(h) Adoption of an average residential density standard; and

(i) Rezoning or redesignation of nonresidential land.

The Remand directives to the city on efficiency measures include:

- *explain why increasing the density allowed, particularly for large blocks of vacant land outside of existing established neighborhoods, is not reasonable during the 20-year planning period.*[5]
- *The measures the City considers must include, but are not limited to, evaluating the infill capacity (including plan and zone changes) of residential lands with more than five acres that are vacant or partially vacant.* [6]
- *The City also should consider the measures as listed in the Director's Decision, at 45-46, that are related to efficiency measures.*[7]
- *The Commission is <u>not</u> asking the City to amend its plan and zoning designations in established residential neighborhoods; the City has several areas of vacant and redevelopable residential lands where it could consider planning for more multi-family housing.*[8] (emphasis in original)

The Director's Decision from the Remand identifies efficiency measures drawn from the city's own Residential Lands Study:[9]

---

[5] Land Conservation and Development Commission (LCDC) Remand, page 52.

[6] LCDC Remand, page 53.

[7] LCDC Remand, page 53.

[8] LCDC Remand, page 53.

[9] DLCD Director's Report, page 46.

- *Consider measures to encourage needed housing types within additional areas of the city, including rezoning of areas along transit corridors and in neighborhood centers;*
- *Consider splitting the existing RS zone, which covers most of the residential areas of the city, into two or more zones in order to encourage redevelopment in some areas while protecting development patterns in well-established neighborhoods;*
- *In areas where the city is planning significant public investments, consider upzoning as a means to help spread the costs of such investments;*
- *Consider strengthening the minimum density provisions in the existing UAR and SR 2½ zones by eliminating PUDs and other clustering tools; and*
- *Consider strengthening the minimum density provisions in the existing RS and RM zones to encourage development of needed housing types, rather than relying on low density residential development.*

The list in the Director's Report is not intended to be exclusive or directive; it is up to the City to determine what is reasonable to accommodate its future housing needs within its UGB. The identified measures must be considered, but are not required to be implemented if they are not reasonable or appropriate. This is important because Statewide Planning Goal 10 (Housing) and ORS 197.296 require the City to ensure that land zoned for needed housing types is planned in locations appropriate for needed housing types[10].

Redevelopment on Employment Lands

There is less guidance in Statute, Rule, and the Remand on what should be considered for redevelopment of employment land. The Remand did not direct the city to consider specific measures to accommodate employment growth within the current UGB; it simply directed the city to further justify and explain the assumptions that the city made about how much redevelopment would take place on employment land within the current UGB. The only guidance is that from Goal 14, that needs "cannot reasonably be accommodated on land already inside the urban growth boundary". The question, then, is to what degree can forecast employment growth reasonably be accommodated inside the current UGB, and are there reasonable actions the city could take to accommodate that growth beyond the current policies and programs?

WILL THIS WORK? THE TEST OF REASONABLE LIKELIHOOD

Residential Efficiency Measures

The Remand and state statute and rule provide guidance on how the city should consider the likelihood that the residential efficiency measures identified will be effective:

- *"To the extent that the City elects to meet its future need for residential land by adopting <u>new</u> measures to promote infill and/or redevelopment, ORS 197.296(7) requires that it demonstrate that such measures 'demonstrably increase the likelihood that residential*

[10] LCDC Remand Order page 49.

development will occur at the housing types and density and at the mix of housing types required to meet needs over the next 20 years.'"[11]

- *"In establishing that actions and measures ... demonstrably increase the likelihood of higher density residential development, the local government shall at a minimum ensure that land zoned for needed housing is in locations appropriate for the housing types identified ... and is zoned at density ranges that are likely to be achieved by the housing market ..."* [12]
- *"If the City relies on new measures, they must do more than merely adopt policies encouraging future planning for the development of needed housing. ... The City may do this by adopting specific timelines for initiation and completion of efficiency measures, including detail about the outcomes that will be achieved as part of the Housing Element of its comprehensive plan. The City also must adopt findings that show why those outcomes are more likely to occur as a result of the measure(s), and how they relate to needed housing types and locations."*[13]

Redevelopment on Employment Lands

State administrative rules implementing Statewide Planning Goal 9 (OAR 660-009-0005(1)) provide the following definition for the purposes of conducting an EOA:

> *(1) "Developed Land" means non-vacant land that is likely to be redeveloped during the planning period.*

Thus "developed land" equates to land "likely to be redeveloped" when evaluating land supply for an EOA. The consulting team operationalizes this definition as land with existing development (i.e., land inventoried in the buildable lands inventory or BLI as "developed") but with the potential that existing development will be converted to more intensive uses during the planning period, as a result of present or expected market forces. Redevelopable land is a subset of developed land, which corresponds with the definition of "developed land" as stated in OAR 660-009-0005(1).[14] We use the term "redevelopable" to refer to redevelopment in this memorandum. Goal 9 does not provide explicit guidance on how to evaluate redevelopable lands beyond this definition.

[11] LCDC Remand, page 54.

[12] ORS 197.296(9)

[13] LCDC Remand, page 55-56.

[14] OAR 660-009-0005(1) "Developed Land" means non-vacant land that is likely to be redeveloped during the planning period.

Memorandum

November 10, 2014

To: Residential Lands Technical Advisory Committee
Employment Lands Technical Advisory Committee

From: Bend Staff
APG Consulting Team

Re: Juniper Ridge Land Use Planning

This memorandum summarizes the master plan proposed for Juniper Ridge in 2008, and the subsequent land use actions creating the Juniper Ridge Overlay Zone.

JUNIPER RIDGE MASTER PLAN

The City initiated the master planning process for Juniper Ridge in 2003 with a set of guidelines endorsed by the Bend City Council for creating a new employment center in Central Oregon. The guidelines included:

- Light Industrial/Research Park;
- Mixed Use Development;
- Wide buffer areas;
- Future college campus;
- Pathways, parks and open space on over 10% of the site
- New transportation interchanges and;
- Incentives for sustainable development

Following a 16-month public process, a preferred plan for Phase 1 of Juniper Ridge emerged (see Figure 1). The city used this preferred plan as the basis for issuing a "Request for Qualifications" to hire a design team to deliver a master plan and future development opportunities for Juniper Ridge. The City hired the Juniper Ridge Partners to develop the Juniper Ridge Technology and Research Park.

The total land area within Juniper Ridge owned by the city is 1,500 acres. Approximately 494 acres is located within the existing City limits. The master plan developed by Juniper Ridge Partners included a plan for the entire 1,500 acres (see Figure 2). The goal of the master plan was to create a vibrant place with a variety of land uses including residential, industrial, office and commercial, a university and parks and open space interwoven in a mixed-use development. It was important that the new mixed-use community was walkable and provided a range of building types and densities.

Figure 1: Juniper Ridge Phase 1 Preferred Plan

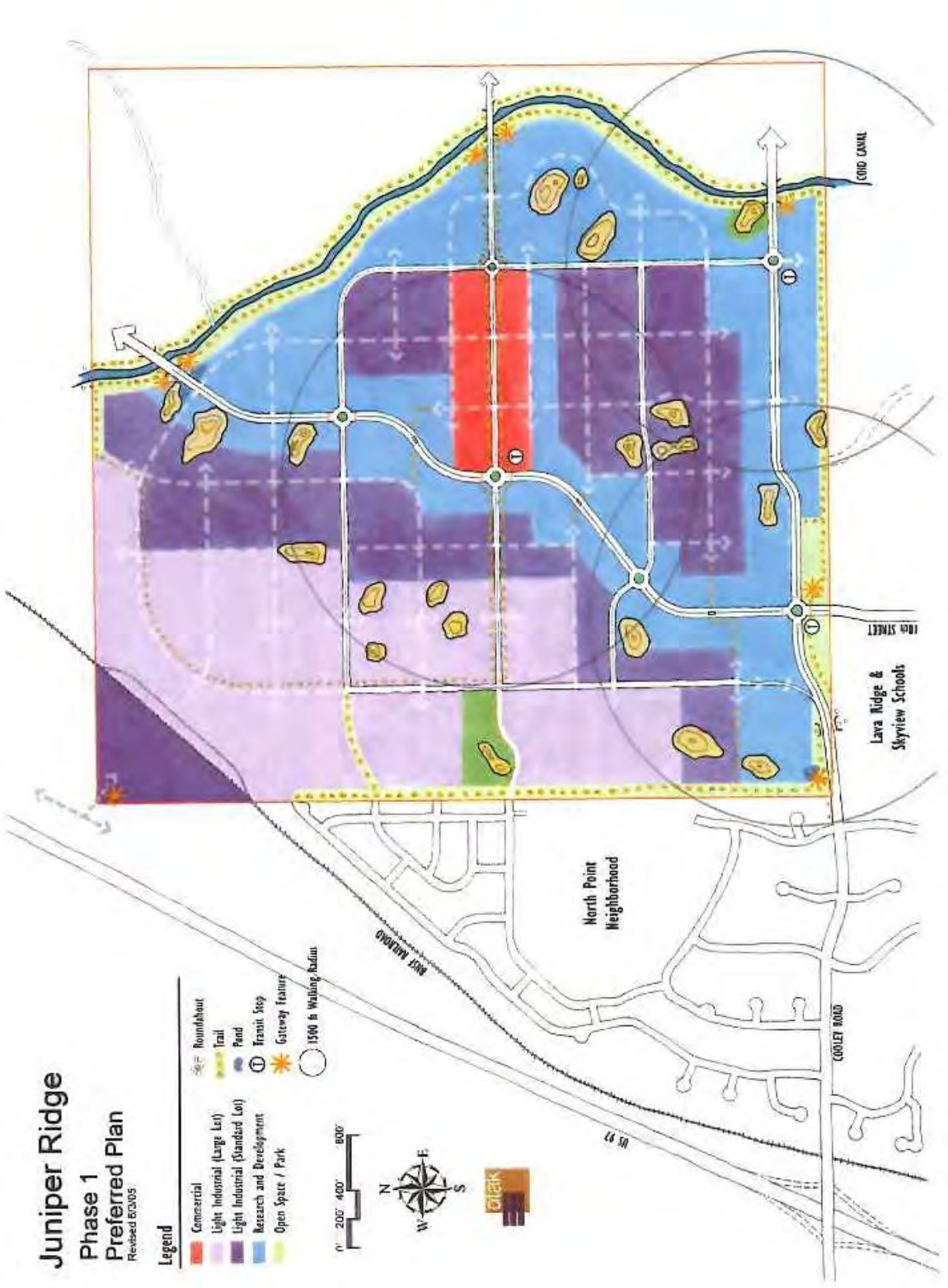


Figure 2: Juniper Ridge Master Plan

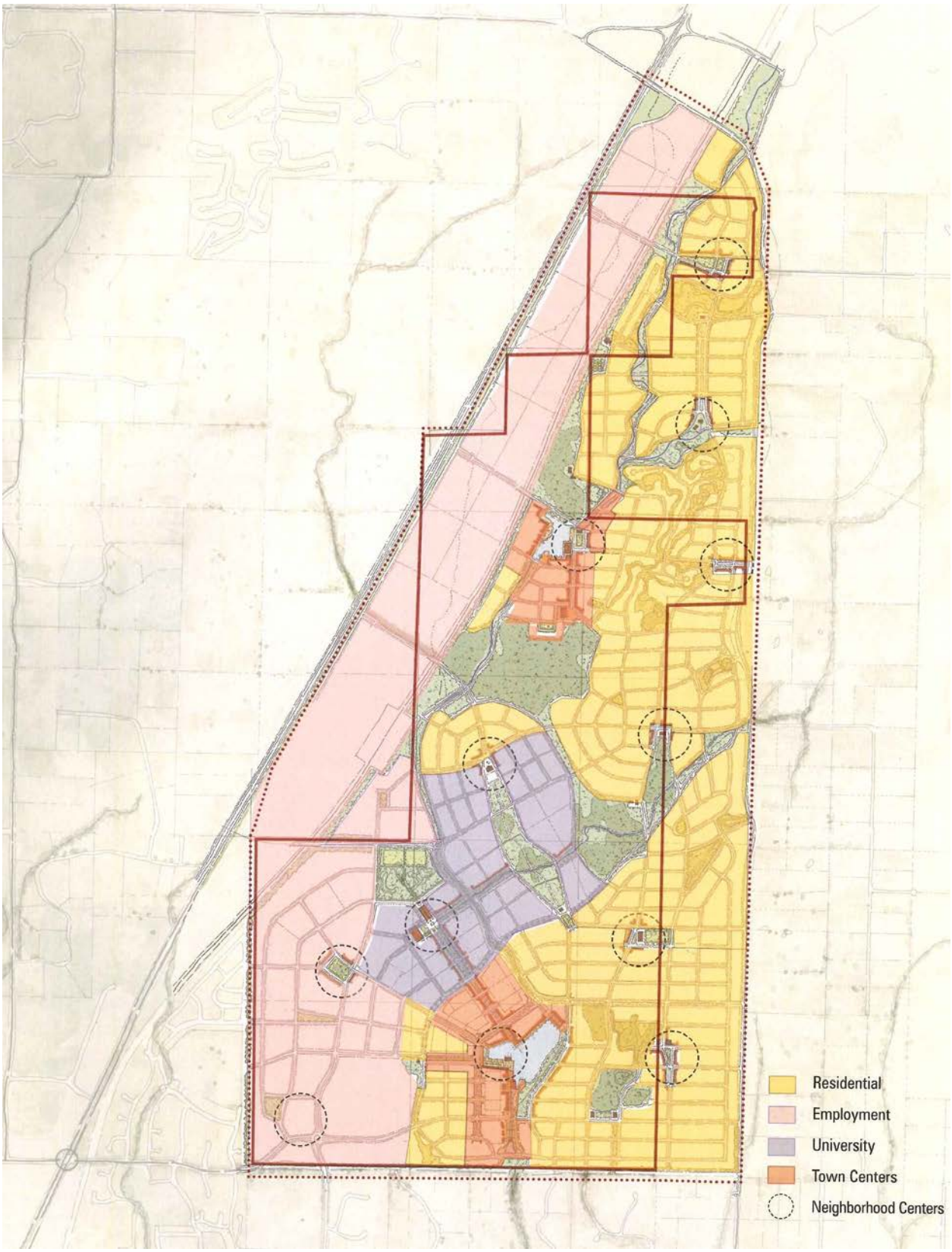


Table 1 lists the mix of uses and building types contemplated in the Master Plan and the approximate number of acres and the densities proposed.

Table 1: Juniper Ridge Master Plan Development Program

PROGRAM WITHIN PRIMARY STUDY AREA		
	ACRES	**DENSITIES**
RESIDENTIAL		
Single family	350	4-7 du/ac
Townhouses	75-125	10-15 du/ac
Multifamily	75-125	20-50 du/ac
EMPLOYMENT		
Large lot Industrial	100	0.25 - 0.50 FAR
Smaller lot industrial	250-300	0.25 - 0.50 FAR
Commercial	75-150	0.40 - 1.00 FAR
Mixed use and town centers	75-150	varies
UNIVERSITY DISTRICT		
Academic and support buildings	100-125	varies
Performing Arts Center	10	varies
Faculty Housing	20-30	6-10 du/ac
Student Housing	15-20	30-50 du/ac
Other *	30-50	varies
OTHER		
Parks and Open Spaces	150-175	
Major streets and right-of-way	125-150	

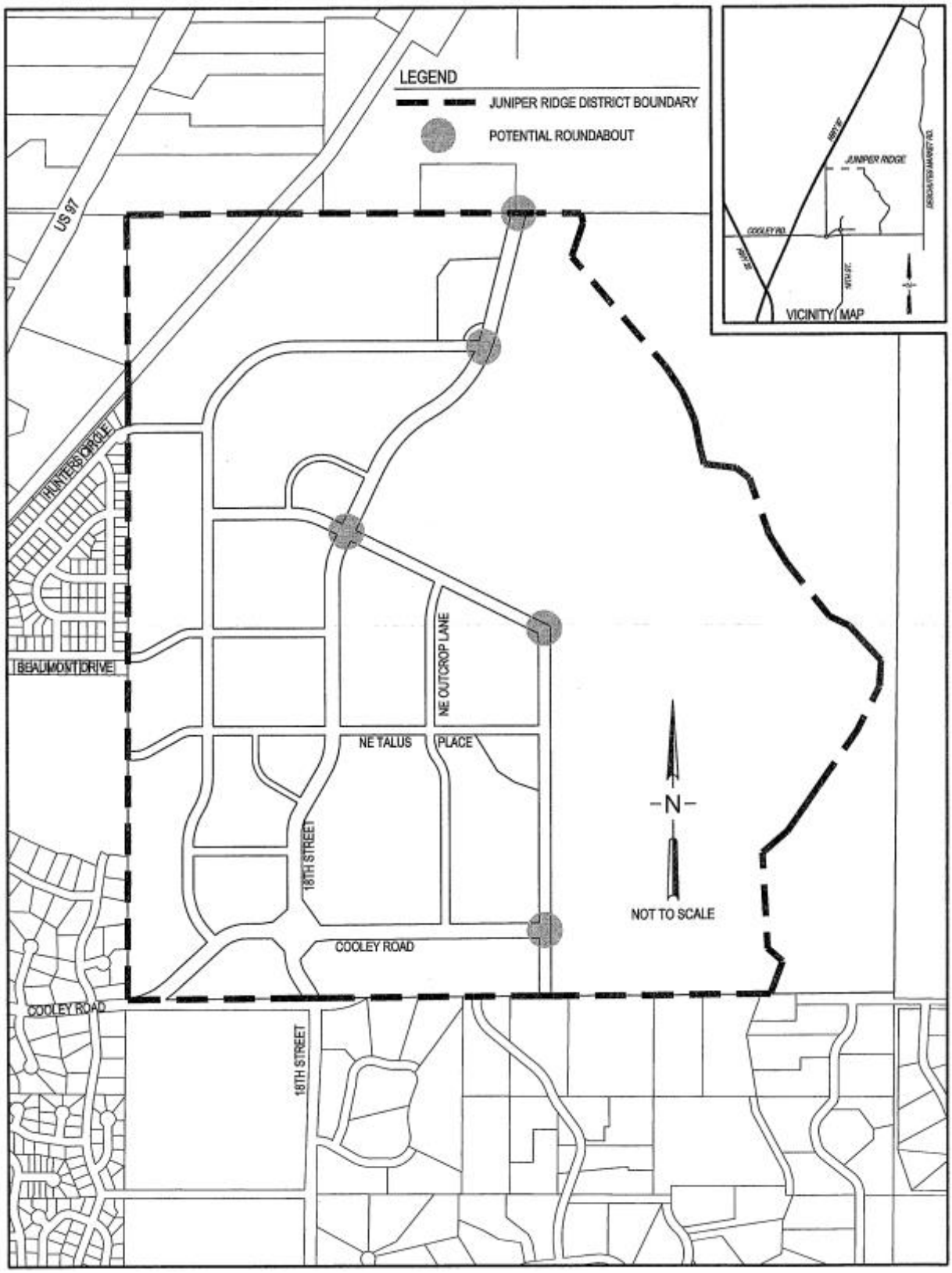
** Possible uses include a high school, library, other civic buildings, incubator/startup facilities, sustainability think tank, etc.*

JUNIPER RIDGE OVERLAY

The Juniper Ridge Overlay Zone was adopted in 2010 to provide opportunities for the development of employment uses within the first phase of Juniper Ridge. The overlay zone encompasses 306 acres of land. The development layout is consistent with the master plan developed by Juniper Ridge Partners and discussed above (see Figure 3).

The Overlay Zone provides specific development standards including building setbacks, building heights, fencing and screening, street design standards and transportation mitigation. Unfortunately, the Special Planned District does not provide any guidance on the building prototype or provide for any design review.

Figure 3: Juniper Ridge Overlay Zone



EMPLOYMENT LAND CONSIDERATIONS FROM 2008 EMPLOYMENT OPPORTUNITIES ANALYSIS (EOA)

The 2008 EOA includes an analysis of industrial land supply, input from industrial and employment land developers and users, and recommendations regarding the distribution of supplies of industrial lands. The following briefly summarizes key points related to Juniper Ridge and industrial land supplies in the EOA for sake of background and discussion by the Residential and Employment TACs as they consider any potential changes to the type and mix of land uses for the portion of Juniper Ridge inside the current UGB.

Any changes to future plan designations at Juniper Ridge will have impacts on industrial land supplies and the location of new industrial areas inside the current UGB, or in any expansion areas. Simply put, if land with a plan designation of Industrial Light (the plan designation for land at Juniper Ridge inside the current UGB) is converted to another use like residential or commercial, then an equivalent amount of land would likely need to be provided elsewhere in any UGB expansion area.

Mentions of Juniper Ridge occur throughout the 2008 EOA. With respect to land supply, pages 91-99 illustrate that Juniper Ridge is one of a handful of vacant parcels over 20 acres inside the current UGB. At the time, it also represented 59% of the total land supply for industrial and mixed use employment land for the planning period. "Effectively, the entire supply of new large industrial sites in Bend would be in one location and under one ownership if no other industrial and mixed use lands are added to the UGB. This presents a number of potential problems. First, well documented transportation deficiencies near Juniper Ridge limit the marketability of this parcel for years. Second, many potential industrial site users may not find the Juniper Ridge location ideal form a number of standpoints. Third, the private sector has no opportunity to compete with the city in terms of price, location, and supply if no additional land is made available."[1] However, there may also be advantages of public ownership as well, including the possibility of low holding costs, and a patient land owners, or for the city to focus on encourage targeted industries to locate at Juniper Ridge.[2]

Policy input from stakeholders and decision makers at the time the EOA was written encouraged industrial lands to be distributed around the 2009 UGB expansion area to provide a greater mix of locations, ownerships, regulatory models and controls, flexibility and choice in the market, and decreased development limitations due to infrastructure shortfalls in specific locations.[3] The contested "market choice" factor was introduced in part to provide additional supplies of new industrial land outside of Juniper Ridge since the 2008 EOA predicted sufficient supplies of industrial land were available for the 20-year planning period.

While the final land need analysis for industrial land is not complete at this time, recent Employment TAC direction and USC approval to not apply a market choice factor suggests that

[1] Page 97 EOA.

[2] Page 64 EOA.

[3] Page 113 EOA.

significant new supplies of industrial and mixed use land are not likely to added to the expanded UGB. Changing the mix of future land uses at Juniper Ridge may be one way to create new industrial areas inside, and outside the current UGB.

PUBLIC INPUT ON JUNIPER RIDGE THROUGH METROQUEST

The Bend Urban Growth Boundary Remand MetroQuest Survey (survey) collected input from the public about the proposed project goals, their relative importance, and the level of support for project strategies among members of the community from July 31, 2014 through August 24, 2014.[4] One part of the survey asked users "Where should we guide growth and change to accomplish our strategies?" and instructed users to drag markers on the map to indicate where changes or improvements should happen over the next 15 years. A comment could be included with each pin as well. A land use tab asked users to indicate where they would like to see more:

- Housing (Apartments, Townhomes, 2-3-4-Plex Homes, Single Family Homes, Mixed Use)
- Shopping (Small Neighborhood Centers, Larger Retail Centers, Other)
- Employment (Small Industrial, Offices, Large Industrial, Other)
- Other

The most common uses identified for Juniper Ridge include large and small industrial, offices, single family homes, residential mixed use, and small neighborhood centers. A number of participants also mentioned Oregon State University (OSU) for this area. Nearly half of the pins on Juniper Ridge were for Employment uses (roughly 65 pins). Another 25% of pins were for residential uses (roughly 35 pins), with the remainder split between shopping and other (largely indicating OSU in comments).

[4] More detailed information about the survey can be found in the Metroquest Survey: Project Goals & Strategies report: http://bendoregon.gov/Modules/ShowDocument.aspx?documentid=18710

Memorandum

November 10, 2014

To: Residential Lands Technical Advisory Committee
Cc: Bend Staff
From: APG Consulting Team
Re: Land Use Efficiency Measures through Development Code Changes

INTRODUCTION

Summary of Previous Work

The Residential Lands Technical Advisory Committee (Residential TAC) has been given an overview of a range of possible efficiency measures that Bend can or must consider and the legal requirements for consideration of efficiency measures in the "Introduction to Land Use Efficiency Measures" memorandum dated August 19, 2014. Measures focusing on increasing density on large blocks of vacant land were explored in the "Land Use Efficiency Measures Context and Opportunity Sites" memorandum dated October 7, 2014.

The October memorandum on efficiency measures also discussed the many objectives that efficiency measures can help achieve, in addition to meeting housing mix and density needs, including: realizing the project goals, advancing urban form principles, and reducing Vehicle Miles Traveled (VMT). In particular, goals like providing a mix of housing types within neighborhoods, offering a variety of high-quality housing options, and protecting the character of historic neighborhoods are all important to keep in mind in considering efficiency measures affecting residential land.

Focus for this Memorandum

This memorandum focuses on potential modifications to the development code that could be applied to residential zones throughout the city to encourage development of needed housing types and/or encourage more efficient use of residential land. It also includes one financial incentive that could be applied for certain types of development, regardless of location within the city.

The Director's Report from the Department of Land Conservation and Development (DLCD), which was referenced and endorsed in the Remand, requires the City to consider measures including the following:

- "measures to encourage needed housing types within additional areas of the city"[1]

[1] DLCD Director's Report (Bend UGB Order 001775), pages 39 and 46.

- "strengthening the minimum density provisions in the existing RS and RM zones to encourage development of needed housing types"[2]

Additional measures identified by the project team and/or included in a workbook titled "Planning for Residential Growth: A Workbook for Oregon's Urban Areas" produced by DLCD were included in the initial list of potential measures for consideration in the August memorandum. A subset of those measures that could be addressed broadly through a change to the development code (as opposed to a site-specific change of plan/zone designations or other location-specific policies or incentives) is included in this memorandum, with additional detail on the nature of the potential code amendments. The potential code amendments are proposed to be grouped into two packages for the purposes of testing their impacts on the capacity of the current UGB (and other performance measures): a "conservative" package and an "aggressive" package.

Future Work: Analysis of Impacts

The discussion of potential code changes that could encourage development of needed housing types and/or encourage more efficient use of residential land feeds into the creation and testing of scenarios for the existing UGB using the Envision Tomorrow model. The next step for the project team will be to roughly estimate the magnitude of the potential impacts of each package, intentionally erring on the side of being optimistic, in order to determine the order of magnitude of their collective impact. This will be done by translating each of the measures in each package into revisions to the assumptions about future development that are built into the Base Case based primarily on professional judgment. If the preliminary estimate of the potential impact shows that they could substantially affect current UGB capacity if successful, it will be worth the effort to further research, quantify, and refine the assumptions about impact in order to show that the measures "demonstrably increase the likelihood of higher density residential development", as required by ORS 197.296(9) and to rely on them to help meet the city's housing need.

The development code efficiency measures will be combined with location-specific measures, such as zone changes and targeted incentives, to create scenarios for future development inside the existing UGB. These scenarios will be refined and narrowed; the preferred option or options will determine the residual land need to be met through UGB expansion (this may be a range).

POTENTIAL DEVELOPMENT CODE EFFICIENCY MEASURES

Summary of Draft Recommendations for Further Evaluation

The set of potential changes in Table 1 builds on the information provided in the August memorandum, offering specific ideas for how existing regulations could be modified in order to implement certain efficiency measures. Measures are grouped into categories where they

[2] DLCD Director's Report, pages 39 and 46.

address a similar issue (column 1 reflects the category). The right-hand columns identify which measures and changes are preliminarily recommended to be included in each package.

Density Standards: Multiple Options

One of the measures identified in Table 1, increasing minimum gross density standards in RS and RM zones, merits additional discussion of alternative approaches to achieve the same objective. Currently, the RS, RM and RH zones span the range of densities from 2.2 to 43 units per gross acre with three zones and no gaps. As a result, minimum density standards are fairly low in the RS and RM zones, and both zones allow a wide range of gross densities.

- Standard Density Residential (RS): 2.0 – 7.3 units/gross acre
- Medium Density Residential (RM): 7.3 – 21.7 units/gross acre

Based on data from 1998-2008 included in the draft BLI, average density of development (for all housing types) in the RS and RM zones for that period was close to the mid-point of the allowed density range:

- RS: 4.9 units per acre
- RM: 13.4 units per acre

In order to get new development to consistently build in the upper end of the density range, there are three main options:

1. raising minimum densities in the RS and RM zones
2. splitting each of the RS and RM zones into two zones with different density ranges (e.g. RS-1 and RS-2, RM-1 and RM-2)
3. keeping the current RS and RM zones with their current density ranges, but adding a variant of each zone with a higher minimum density (e.g. RS-2 and RM-2)

Raising minimum densities could be done across the city and would apply only to new development and redevelopment (it would not make existing development non-conforming). However, it would leave “gaps” of densities that are not permitted to be built within the city any more (the range between the existing minimum and the new minimum in each zone). It could also increase the contrast between infill areas and existing development (existing neighborhood compatibility standards could limit this effect).

Splitting the RS and RM zones into a total of four zones, with each covering a different but smaller density range would allow all densities from 2.0 to 43 to continue to be possible somewhere in the city. The zones could be applied to respond to existing development patterns, topography, infrastructure capacity, and/or other factors. It would also better protect areas currently developed near the bottom of the density spectrum where infill is determined not to be appropriate by limiting the maximum potential density to closer to what exists today. However, this approach would require rezoning most of the city to select the appropriate sub-zone for each area, even if changes are not proposed for the area. Creating a version of RS-1 that covers just the low end of the density range might also allow this new zone to be applied to certain areas currently designated RL, to facilitate slightly higher density development patterns

without allowing as great a contrast from the existing density range in the RL zone as if the current RS zone were used.

Keeping the existing zones but also creating variants with higher minimum density would allow stable developed areas to retain their existing zoning, but would allow the higher minimum density versions to be applied to areas with more (re)development potential.

The project team's working recommendation is the third option – keeping the existing zones but also creating variants with a higher minimum density to be applied in areas with more vacant land or land with infill/redevelopment potential, and to support existing or emerging Urban Form considerations.

Density Needs Good Design

As the community considers options to increase infill potential and residential density of new development, additional design standards, particularly for single family development in infill situations and on small lots, may be needed in order to ensure that new development is attractive and does not result in too much of a single building style in one place. (There are existing architectural design standards for duplexes and triplexes, townhomes, accessory dwellings and multifamily housing, but not for single family detached homes.) The design standards could focus on building design elements such as roof pitch, windows, setback variations, massing and height variations, and architectural elements rather than using tools like setbacks and larger lots to provide compatibility. Such design standards are not included in Table 1 because they are not an efficiency measure in themselves; however, they may need to be included in any package of code amendments that does include efficiency measures. If the Residential TAC believes this is an important consideration, the project team suggests policy recommendations for design standards be included with policy recommendations supporting more infill or higher density development. The current scope of work does not include the timing or resources for design standard code development, but such work could take place on the heels of the UGB adoption process.

Discussion Questions for Residential TAC

The Residential TAC is asked to provide feedback on the draft packages of efficiency measures indicated in the right-hand columns of the table:

- Are the right measures included in each package?
    - Is the conservative package too conservative?
    - Are any of the measures included in the "aggressive" package too unpalatable to analyze further?

At this stage, the Residential TAC is not being asked to endorse either or both packages of code changes, but rather to help the project team refine which measures are appropriate to include in the packages for further testing as described previously.

In addition, the Residential TAC is asked for input on which approach to addressing density standards in the RS and RM zones should be pursued.

Table 1: Potential Efficiency Measure Code Changes and Packages

Category	Efficiency Measure Concept	Potential Code Amendments	Rec. for "Conservative" Package?	Rec. for "Aggressive" Package?
Density Standards	(1) Increase minimum density standards in RS and RM zones	a) Increase minimum gross density from 2.0 to 4-5 DU/acre for RS (or RS-2)	✓ (4 DU/ac min)	✓ (5 DU/ac min)
		b) Increase minimum gross density from 7.3 to 10-12 DU/acre for RM (or RM-2)	✓ (10 DU/ac min)	✓ (12 DU/ac min)
	(2) Limit and clarify exceptions to minimum density standards	a) Revise exemptions in 2.1.600.B.7 and 8 to be limited to exempting a single family home on an existing platted lot, rather than exempting any redevelopment or infill within an existing pattern of development (but consider allowing a lower minimum density for small infill sites, e.g. under an acre)	✓	✓
Permitted Housing Types	(3) Allow Accessory Dwelling Units (ADUs) in all single family zones	a) Permit ADUs outright rather than conditionally in SR 2 1/2, RL and RS zones on lots created prior to December 1998 subject to ADU and design standards		✓
	(4) Allow cluster / cottage housing development	a) In RS zone, allow cluster / cottage housing up to gross density of 8-10 units/acre (vs 12 in NW Crossing), otherwise same standards as for NW Crossing	✓ (8 DU/ac max)	✓ (10 DU/ac max)
		b) In RM zone, allow cluster / cottage housing at gross densities allowed in the RM zone, otherwise same standards as for NW Crossing	✓ (14-16 DU/ac max)	✓ (16-21 DU/ac max)

Category	Efficiency Measure Concept	Potential Code Amendments	Rec. for "Conservative" Package?	Rec. for "Aggressive" Package?
	(5) Allow duplexes & triplexes in single family zones	a) Allow duplexes & triplexes outright rather than conditionally **on corner lots** in RL & RS zones, subject to existing standards (could also include new ones, such as orientation of entrances, etc.)	✓	
		b) Allow duplexes and triplexes outright rather than conditionally **throughout** RL & RS zones, subject to existing standards		✓
	(6) Preserve the RH zone for attached housing types[3]	a) Prohibit new Single Family Detached housing in the RH zone		✓
Dimensional Standards	(7) Decrease minimum lot size/dimensions in order to allow building at higher densities with single family (attached or detached) homes	a) Decrease minimum lot size in RM zone for Single Family Detached from 3,000 to 2,500 square feet		✓
		b) Decrease minimum lot size in RH zone for Single Family Detached (if allowed, see (6)a)) from 2,500 to 2,000 square feet		✓
		c) Decrease minimum lot size in RH zone for Single Family Attached from 2,000 to 1,500 square feet		✓
		d) Reduce minimum lot dimensions in RH zone for Single Family Attached from 20' (width) and 80' (depth) to 18' (width) and 75' (depth)		✓

[3] Note: it is currently not possible to build Single Family Detached housing in the RH zone at the minimum density for the zone unless other housing types are also included in the development that increase the density. Decreasing the minimum lot size (see (7)b)) might make it possible to meet the minimum density with Single Family Detached housing.

Category	Efficiency Measure Concept	Potential Code Amendments	Rec. for "Conservative" Package?	Rec. for "Aggressive" Package?
	(8) Reduce setback requirements to allow greater utilization of small lots and make development on smaller lots more feasible	a) Reduce front setback from 10' to 5' in RH and RM zones for Single Family Detached and Single Family Attached. Retain garage setback of 20' to ensure any parking of vehicles does not extend into public rights of way (sidewalk).		✓
		b) Change building height threshold for increased side & rear setbacks in RH & RM zones from 20' to 25' and apply only to buildings abutting the RS zone, not existing single-family housing in other zones (setbacks increase by 0.5 ft for each foot by which the building height exceeds X ft. when abutting the RS Zone)		✓
	(9) Increase or eliminate maximum lot coverage standards to allow greater utilization of small lots	a) In the RS zone, increase maximum lot coverage for two-story Single Family Attached dwellings from 35% to 50%		✓
		b) In the RM zone, increase maximum lot coverage for Single Family Attached and Single Family Detached dwellings from 40% to 60%		✓
		c) In the RH zone, eliminate maximum lot coverage requirements; allow minimum parking and minimum landscaping requirements to set upper limit on lot coverage		✓
Parking Requirements	(10) Reduce parking requirements to reduce development	a) ADUs: waive off-street parking requirement for ADUs added to an existing developed lot in some circumstances		✓

Category	Efficiency Measure Concept	Potential Code Amendments	Rec. for "Conservative" Package?	Rec. for "Aggressive" Package?
	cost and allow more efficient use of land	b) Duplex and triplex: reduce parking requirements from 2 to 1.5 spaces per unit		✓
		c) Multifamily housing: reduce parking requirements for affordable housing by 0.5 spaces per unit for each unit size (i.e. from 1 to 0.5 spaces per unit for studio & 1-bedroom units, from 1.5 to 1 spaces per unit for 2-bedroom units, and from 2 to 1.5 spaces per unit for 3- or more bedroom units)		✓
Special Standards for Large and Small Sites	(11) Revise or eliminate design standards for neighborhood compatibility to increase development potential of infill sites	a) Remove restriction that no more than two new lots, parcels or portions thereof shall adjoin an existing abutting property boundary	✓	
		b) Reduce minimum lot size for lots abutting existing properties 20,000 square feet or greater from 15,000 square feet to 10,000 square feet	✓	
		c) Reduce minimum side and rear yard setbacks to be halfway between normal standard and existing setback on adjacent lot rather than matching adjacent lot	✓	
		d) Eliminate the residential compatibility standards under 2.1.300(G) entirely		✓
	(12) Adjust requirements for master planning to	a) Reduce threshold to require master planned neighborhood development per 4.5.400 from 40 acres to 20 acres[4]	✓	✓

[4] Section 4.5.300.A already states that properties totaling 20 acres or larger require a Master Neighborhood Development Plan in conformance with BDC 4.5.400; however, 4.5.400.A states that the applicability is to properties totaling 40 acres or larger.

Category	Efficiency Measure Concept	Potential Code Amendments	Rec. for "Conservative" Package?	Rec. for "Aggressive" Package?
	further promote desired housing types and densities	b) Increase minimum required density for master planned developments from 60% of maximum density to 80% of maximum density for the zone	✓	✓
		c) Strengthen requirements for providing a mix of housing types (require a certain level of mixing of unit types)	✓	✓
		d) Strengthen requirements for providing neighborhood commercial and parks/open space (require a small amount of land be used for neighborhood commercial and parks/open space when consistent with urban form opportunities maps, other factors)	✓	✓
Financial Incentives	(13) Reduce SDCs for desired housing development	a) Reduce SDCs for ADUs or small infill projects where infrastructure is already available and adequate to serve the new housing units		✓

PROJECT GOALS

The City of Bend has entered the next phase of its Urban Growth Boundary (UGB) expansion to chart a path for Bend's future growth. The UGB is a line drawn on the City's General Plan map that identifies Bend's urban land. This land represents an estimated 20-year supply of land for employment, housing, and other urban uses. As the city continues to grow, we have an opportunity to develop a plan for future growth that reflects the community's goals and meets state planning requirements.

The UGB Steering Committee approved the following Project Goals on September 4, 2014.

A Quality Natural Environment

As Bend grows, it preserves and enhances natural areas and wildlife habitat. Wildfire risk management is a key consideration. Bend takes a balanced approach to environmental protection and building a great city.

Balanced Transportation System

Bend's balanced transportation system incorporates an improved, well-connected system of facilities for walking, bicycling, and public transit, while also providing a reliable system for drivers. Bend's transportation system emphasizes safety and convenience for users of all types and ages.

Great Neighborhoods

Bend has a variety of great neighborhoods that promote a sense of community and are well-designed, safe, walkable, and include local schools and parks. Small neighborhood centers provide local shops, a mix of housing types, and community gathering places. The character of historic neighborhoods is protected and infill development is compatible.

Strong Active Downtown

Bend's downtown continues to be an active focal point for residents and visitors with strong businesses, urban housing, civic services, arts and cultural opportunities, and gathering places. Parking downtown is adequate and strategically located. Planning in other areas continues to support a healthy downtown.

Strong Diverse Economy

Bend has a good supply of serviced land planned for employment growth that supports the City's economic development goals, provides a range of diverse jobs and industries, and supports innovation. Employment areas, large and small, have excellent transportation access.

Connections to Recreation and Nature

Bend continues to enhance its network of parks, trails, greenbelts, recreational facilities, and scenic views inside and outside the city.

Housing Options and Affordability

Bend residents have access to a variety of high quality housing options, including housing affordable to people with a range of incomes and housing suitable to seniors, families, people with special needs, and others. Housing design is innovative and energy efficient.

Cost Effective Infrastructure

Bend plans and builds water, wastewater, storm water, transportation, and green infrastructure in a cost-effective way that supports other project goals. Efficient use of existing infrastructure is a top priority.

September 4, 2014
www.bendoregon.gov/bendugb

Memorandum

12/9/2012

SUMMARY OF METROQUEST INPUT FOR DECEMBER TAC/USC WORKSHOP

The discussion below summarizes input received from the Bend Urban Growth Boundary Remand MetroQuest Survey (survey) active from July 31, 2014 through August 24, 2014. More detailed information about the survey can be found in the Metroquest Survey: Project Goals & Strategies repot.

Goal Rankings

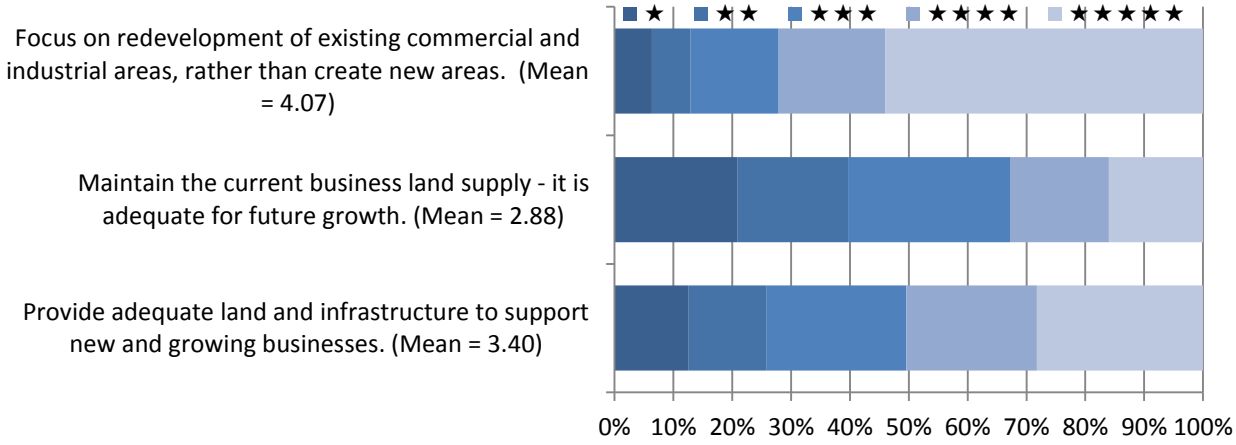
Respondents were asked to rank their top five project goals in order of importance. As shown in the figure below, “A Strong Diverse Economy” had the second-highest average ranking, somewhat below to “A Quality Natural Environment” and slightly above “Connections to Recreation and Nature.” The combination of these three values might suggest that respondents favor employment types that do not harm Bend’s natural and recreational assets.

Figure 1.Project Goals and Mean Times Ranked

Strategy Ratings

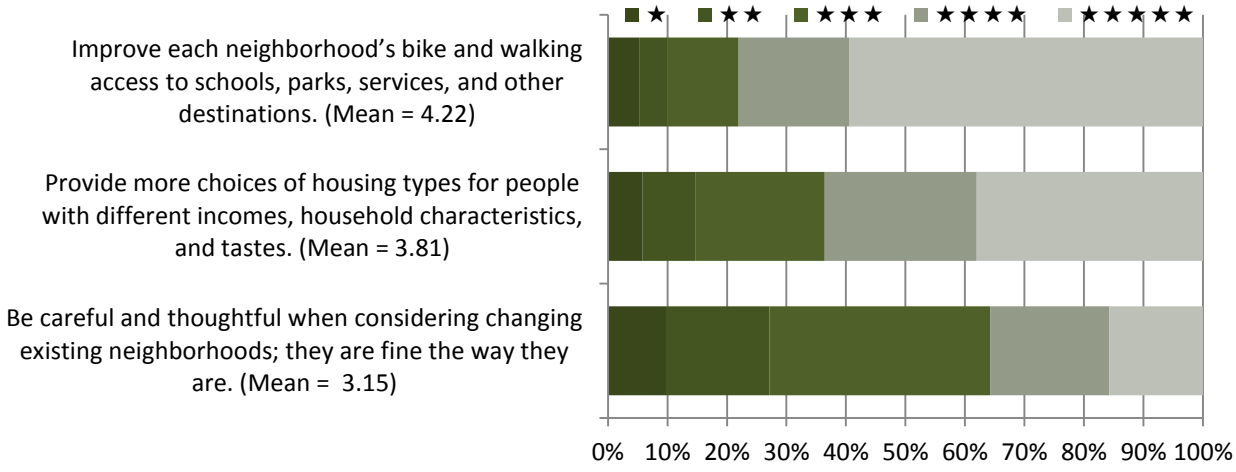
Respondents were asked to rate their level of support for strategies to meet these project goals. The strategies identified to attain the goal of a **Strong Diverse Economy** are shown in the figure below, along with their level of support among respondents. “Focus on redevelopment of existing commercial and industrial areas, rather than create new areas” received the highest average rating by a large margin. This strategy fits with the direction of the Bend UGB Remand project, which is focusing on redevelopment of existing commercial and industrial areas.

Figure 2. Strategies: Strong Diverse Economy



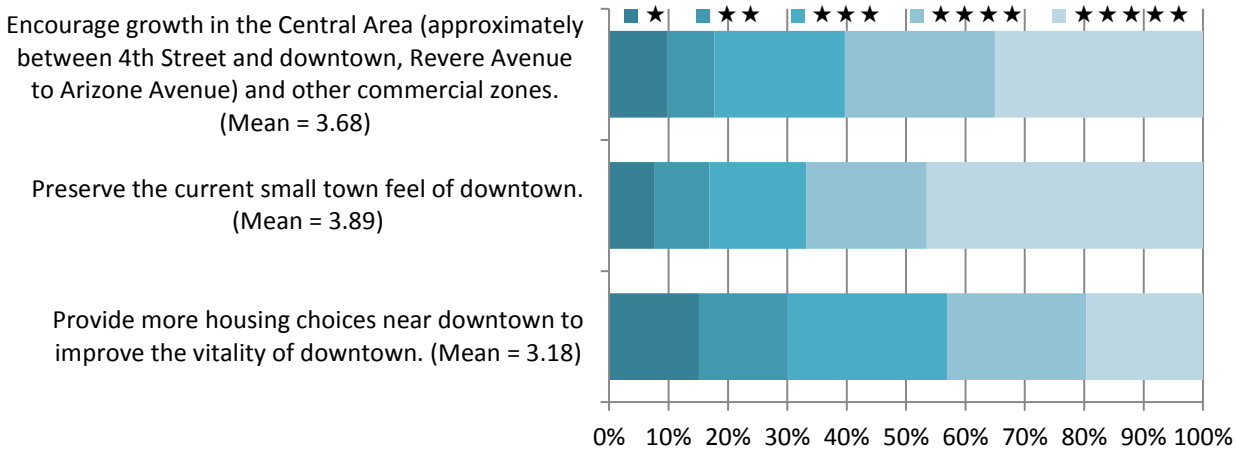
Rankings for **Great Neighborhoods** strategies are shown below. Very strong support was expressed for increasing walking and biking access and providing housing choices; less so for the statement that neighborhoods “are fine the way they are.”

Figure 3. Strategies: Great Neighborhoods



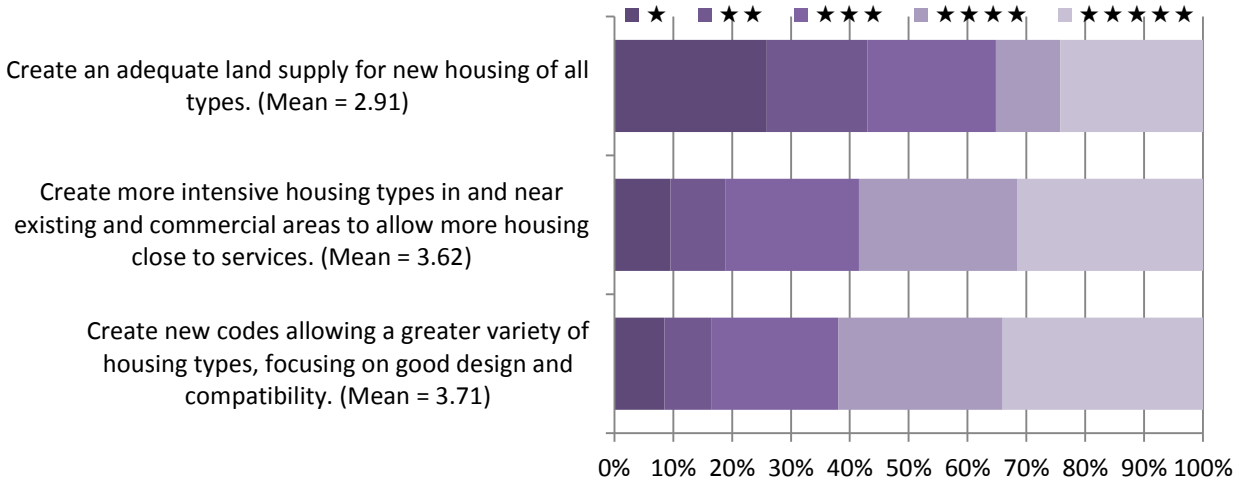
Strategies for a **Strong Active Downtown** received fairly mixed responses, though there was strong support for preserving the "small town feel" of downtown.

Figure 4. Strategies: Strong Active Downtown



Responses to **Housing Options** were also fairly mixed. The ratings of "Create an adequate land supply for housing of all types" were especially varied, with roughly 25% of respondents rating it with one star and 25% rating it with 5 stars.

Figure 5. Strategies: Housing Options



Places and Opportunities

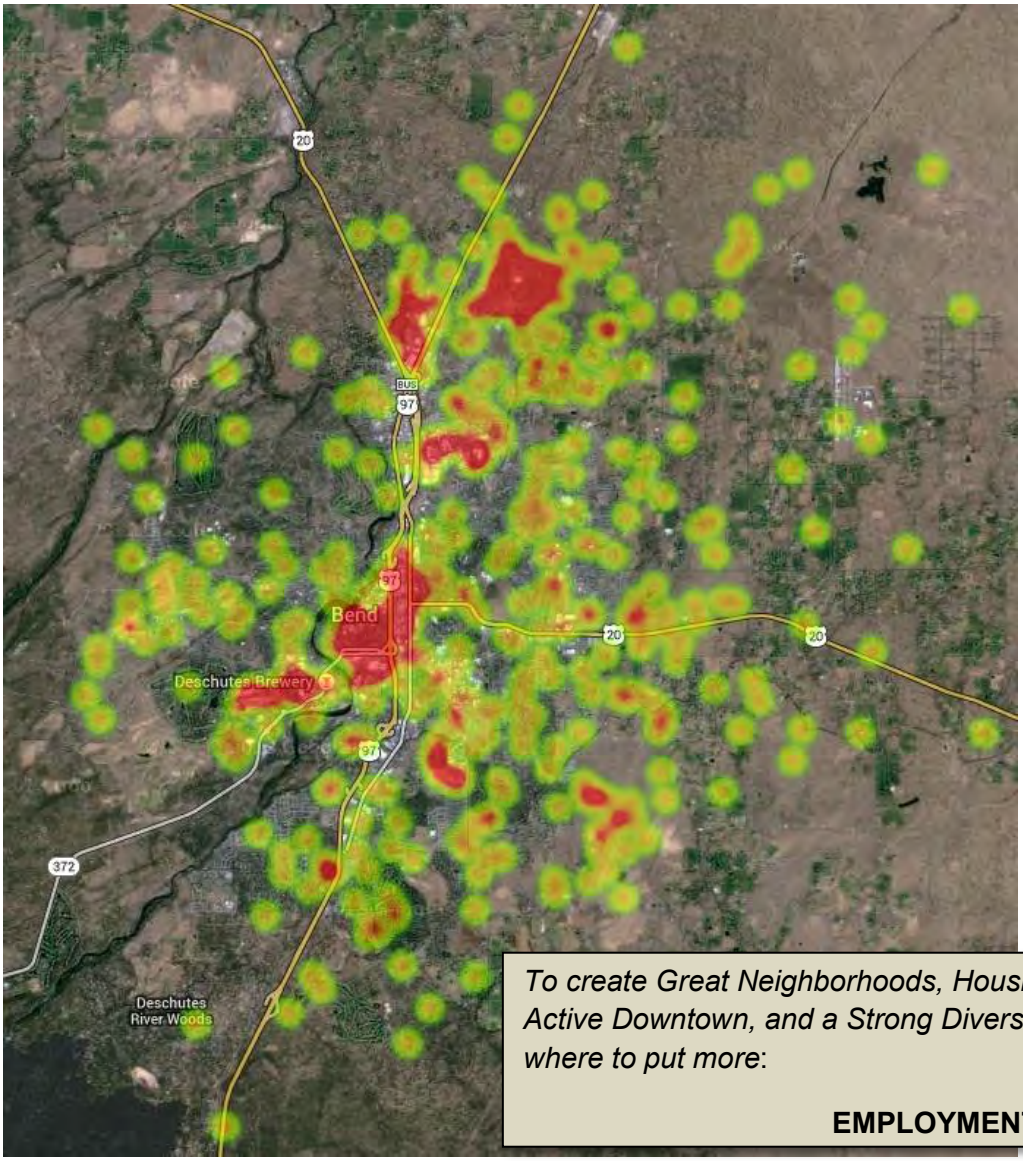
Respondents were asked "Where should we guide growth and change to accomplish our strategies?" via a mapping exercise to place pins for Employment Land on a map, which are shown on the heatmap below. Pins could also be associated with comments.

There was a clear interest among respondents for redevelopment of the 3rd street corridor (Area 3 on the Redevelopment Analysis Study Areas map) for small industrial and office uses,

supporting and supported by significant multimodal transportation improvements along the corridor.

There was some interest in redevelopment in areas with access to the Bend Parkway, near the South 3rd Street Commercial area (Area 12 on the Redevelopment Analysis Map), and SW Century Drive (Area 8). The “Core Pine” area (Area 9) was called out for mixed use, office, and high-tech employment. Vertical mixed use in Galevston and Newport areas (Area 1) was mentioned, with multi-story residential above shopping.

Juniper Ridge was frequently called out for large-scale industrial uses. Areas near Cascade Village were mentioned for new employment opportunities due to their proximity to existing shopping and parkway access. There were many mentions of support for smaller-scale and locally-owned retail, as opposed to “box stores,” particularly in the east side



To create Great Neighborhoods, Housing Options, a Strong Active Downtown, and a Strong Diverse Economy, tell us where to put more:

EMPLOYMENT

Natural Resources and Employment Conflicts. Potential conflicts arise when contrasting at some respondents desire to increase employment lands the western portions of the city (largely for traffic reasons) with other respondents' clear desire to protect natural areas to the west and prohibit urban expansion in that direction.

Shopping and Retail. Shopping and Retail suggestions were focused downtown and 3rd street, with frequent mention of the need for retail close to East Side residents. There were many respondents showing support for a grocer and local-serving shopping in nearly every Bend neighborhood. Shopping was often mentioned in the Old Mill district, along with multifamily housing for OSU students and bicycle/pedestrian/transit connections to campus.

Figure 6. Large Retail Centers Map

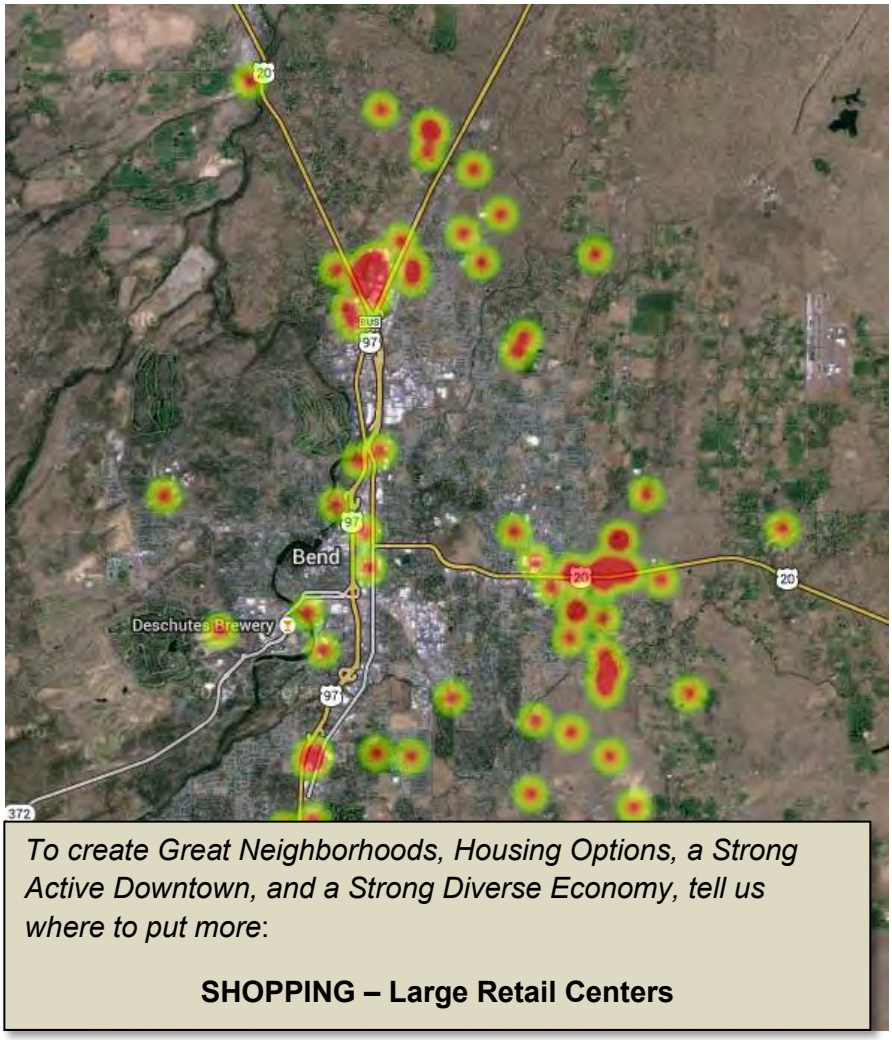
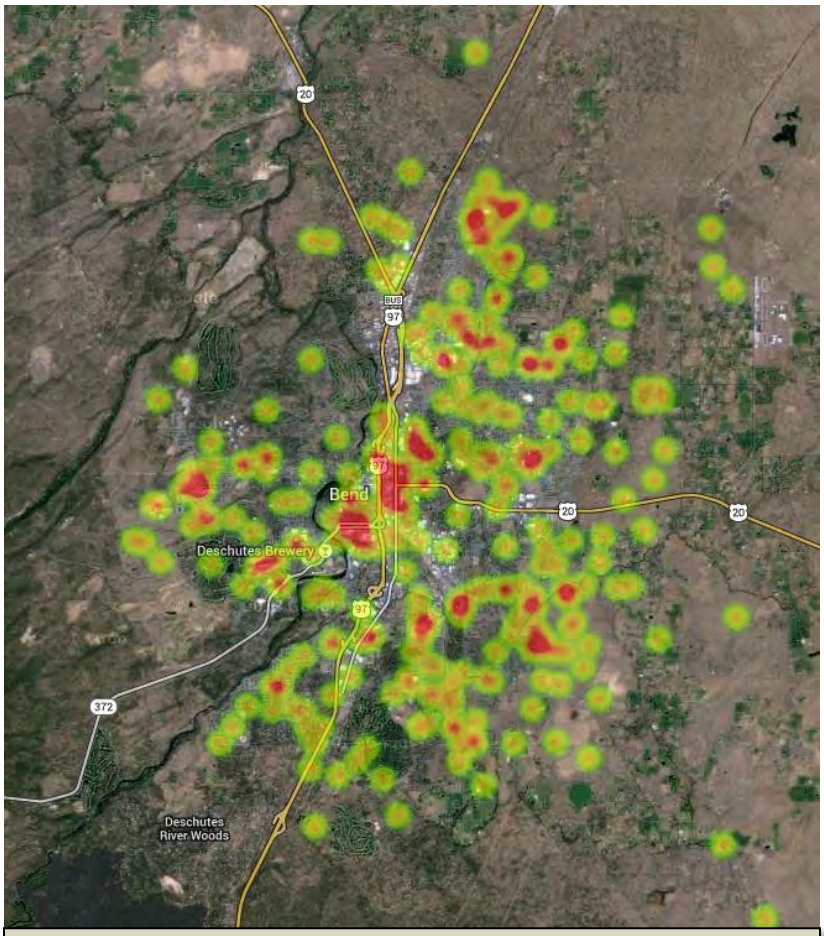


Figure 7. Neighborhood Retail Centers Map

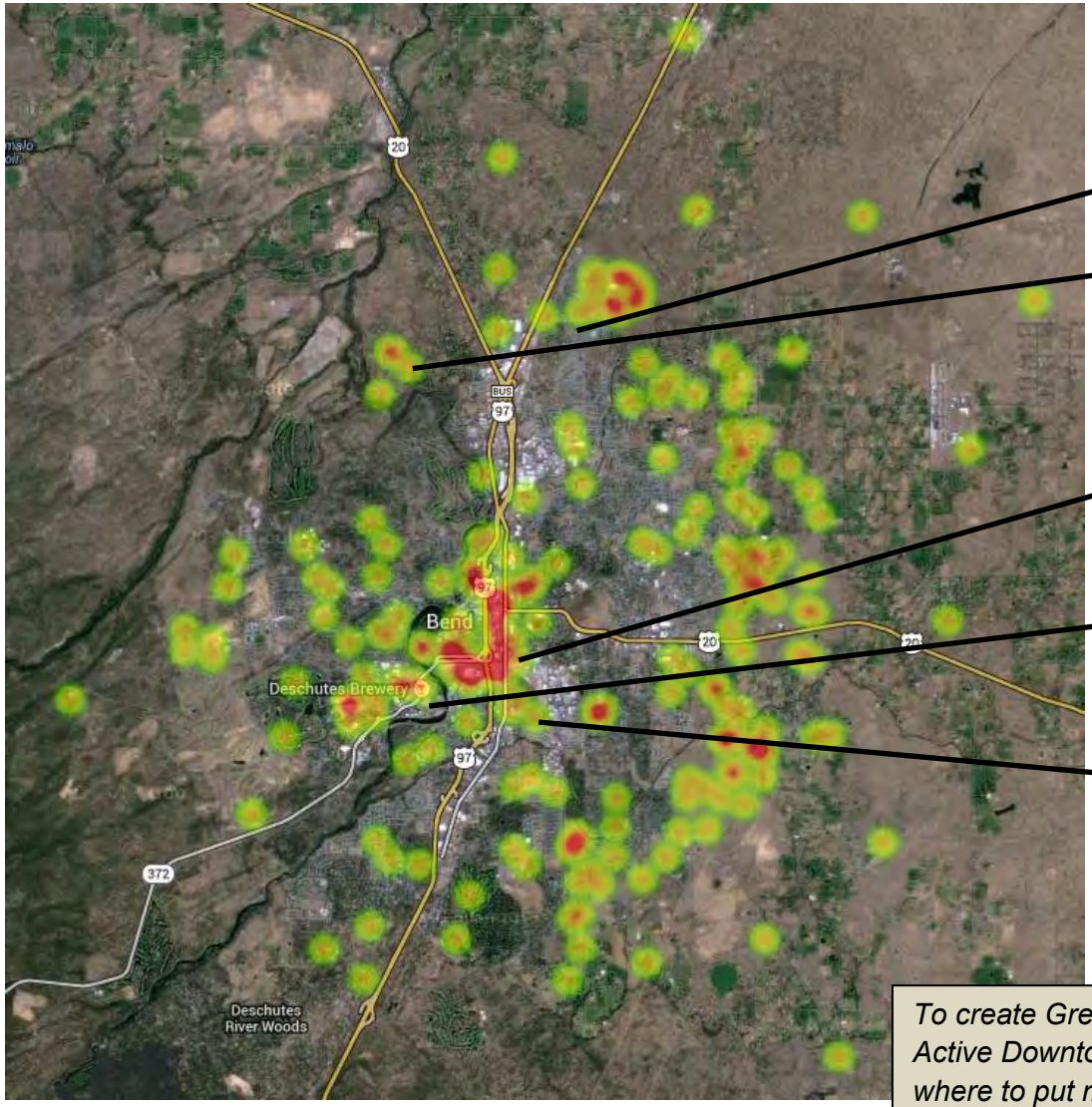


To create Great Neighborhoods, Housing Options, a Strong Active Downtown, and a Strong Diverse Economy, tell us where to put more:

SHOPPING – Small Neighborhood Centers

Housing. The following pages contain heatmaps and more detailed maps related to housing.

Figure 8.Residential Mixed Use Heat Map



Live/Work Units

Ensure housing diversity

Improve urban form of 3rd Street corridor

Infill and Mixed Use on Transit Corridors

More development in eastside neighborhoods

Figure 9.Residential – Single Family

To create Great Neighborhoods, Housing Options, a Strong Active Downtown, and a Strong Diverse Economy, tell us where to put more:

HOUSING – Mixed Use

Develop Juniper Ridge

Maintain Integrity of Existing Neighborhood

Large Lot Housing

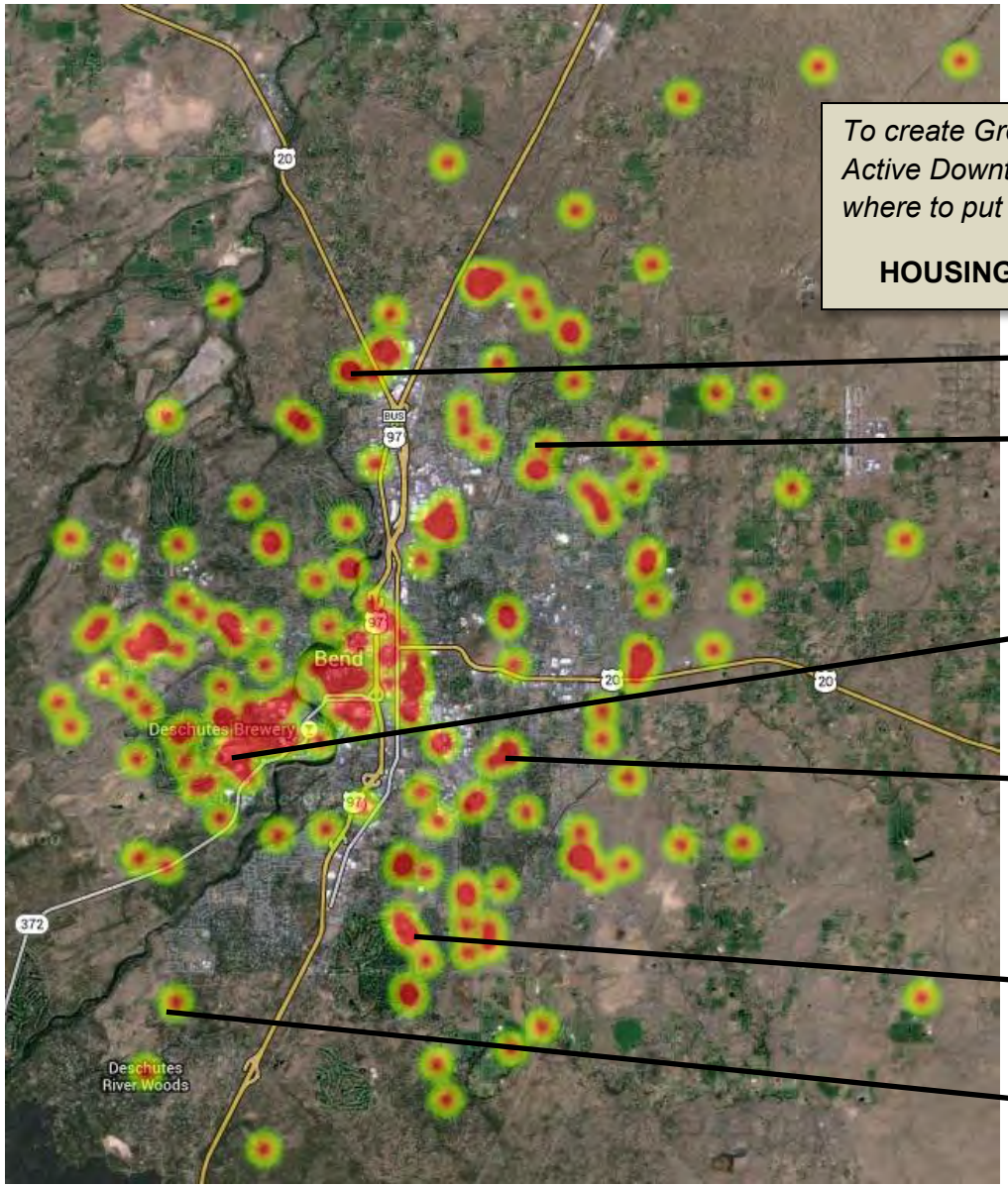
Large Lot (1/2 Acre Plus)

Large Lot

To create Great Neighborhoods, Housing Options, a Strong Active Downtown, and a Strong Diverse Economy, tell us where to put more:

HOUSING – Single Family

Figure 10. Townhomes, 2- 3- and 4-plex, Apartments

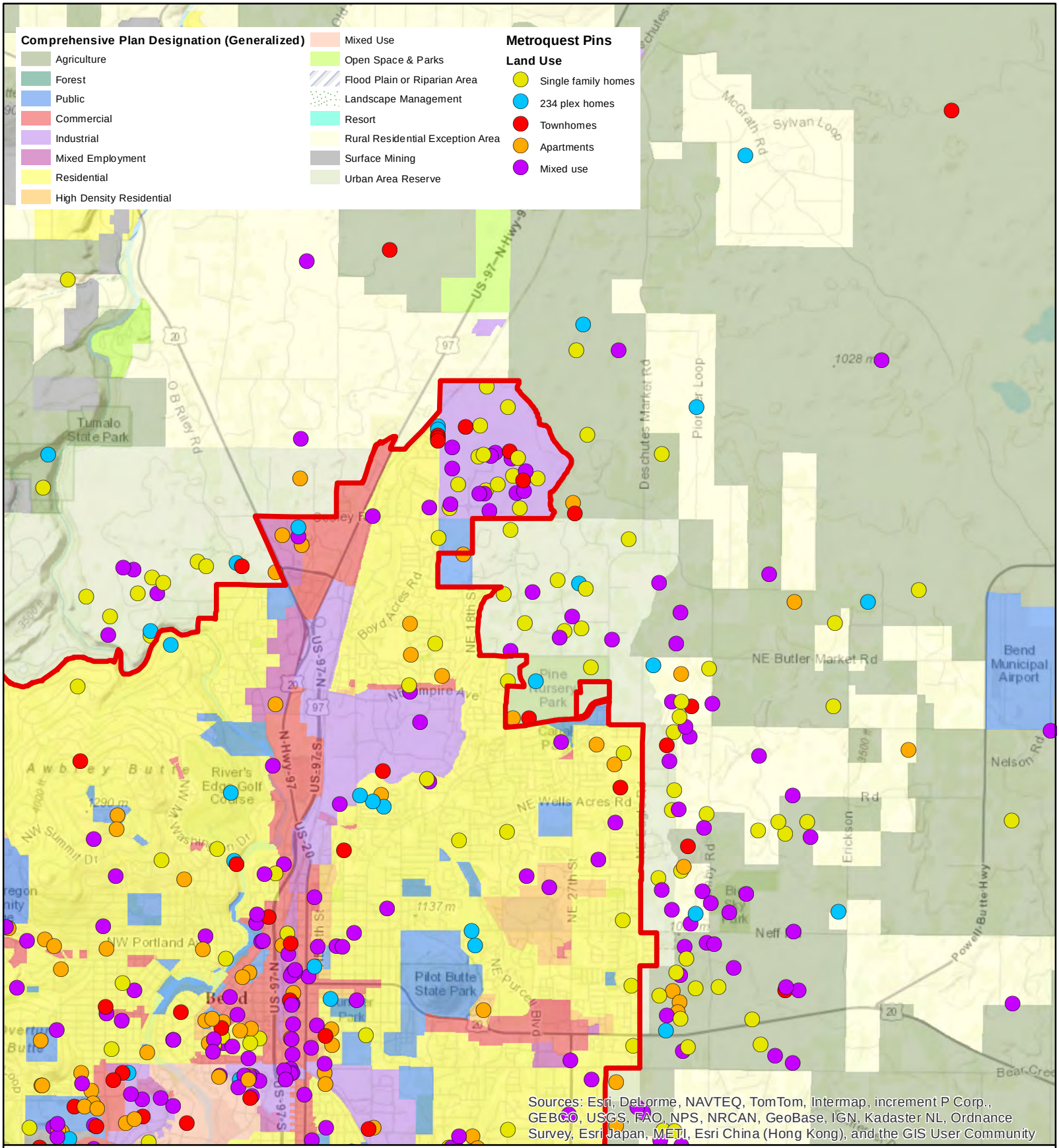


To create Great Neighborhoods, Housing Options, a Strong Active Downtown, and a Strong Diverse Economy, tell us where to put more:

HOUSING – Townhomes, 2- 3- and 4-plex, Apartments

- Density near retail
- Affordable Housing
- Affordable Housing for students and others
- Senior Housing
- Affordable Housing
- Mix of housing south of RiverRim

MetroQuest Map Pins: Land Use



Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community

URBAN GROWTH BOUNDARY REMAND

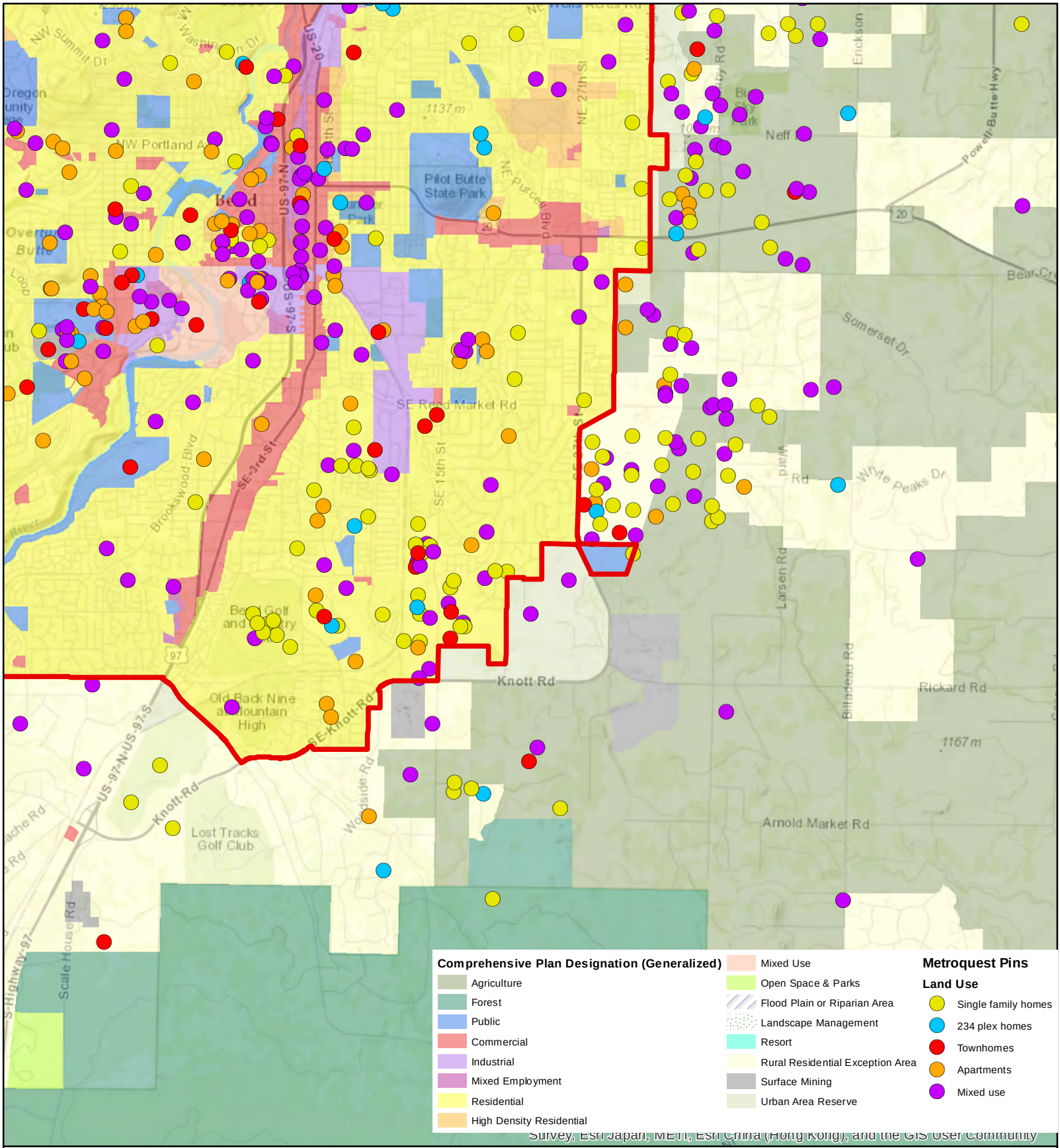
BEND

NORTH

Prepared 10/30/2014

0 0.5 1 2 Miles

MetroQuest Map Pins: Land Use



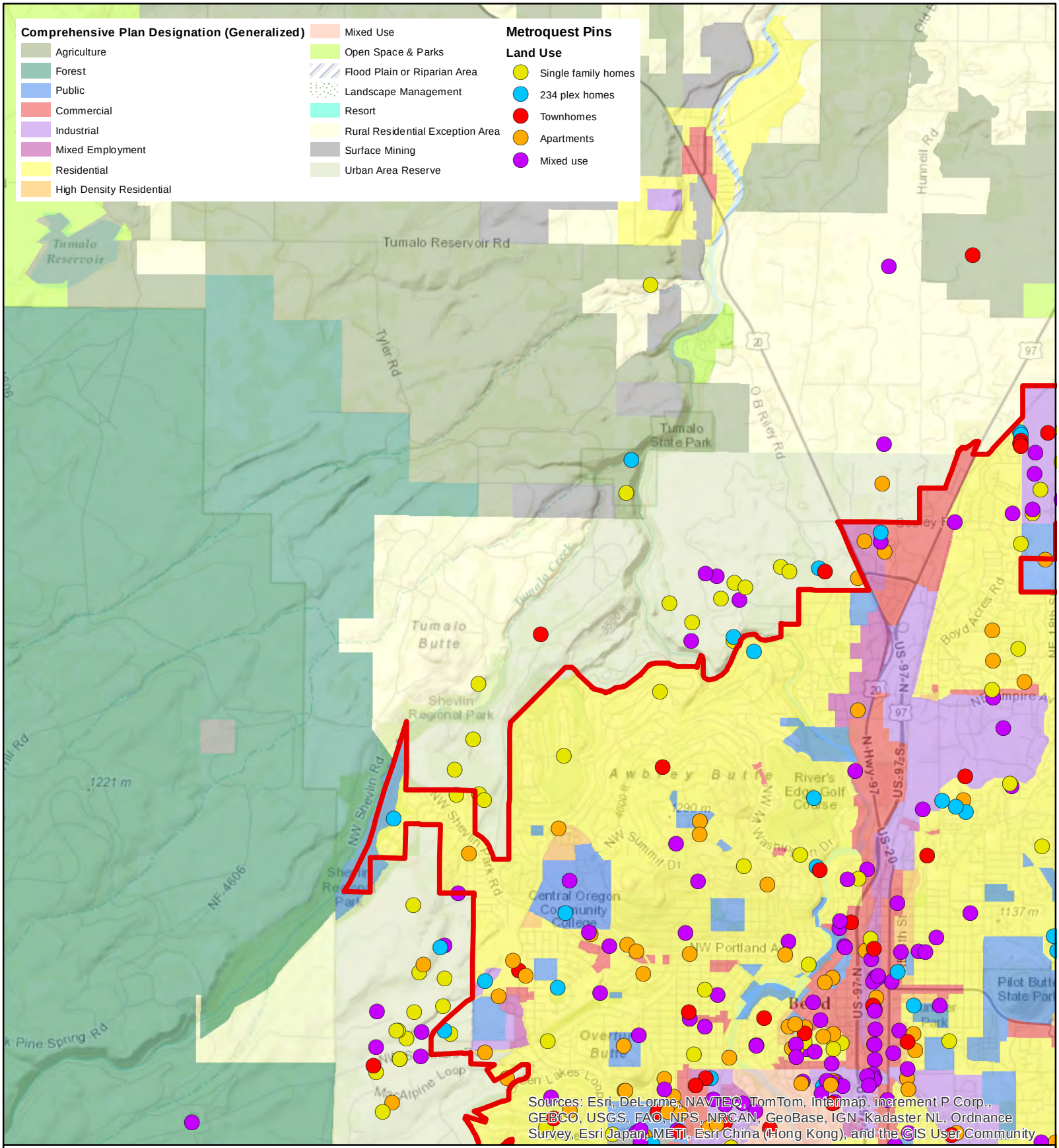
URBAN GROWTH BOUNDARY REMAND

NORTH

Prepared 10/30/2014

0 0.5 1 2 Miles

MetroQuest Map Pins: Land Use



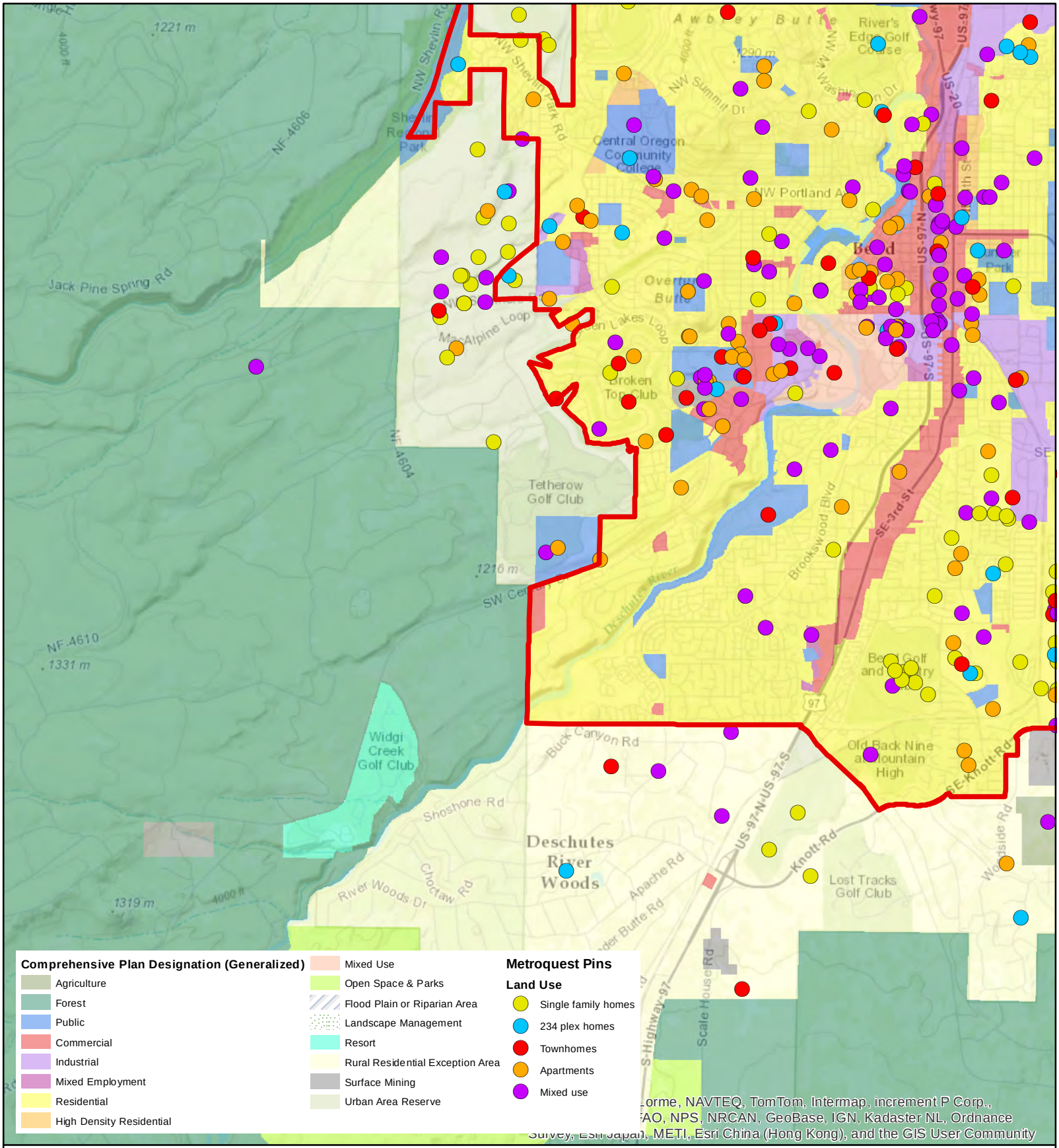
URBAN GROWTH BOUNDARY REMAND

NORTH

Prepared 10/30/2014

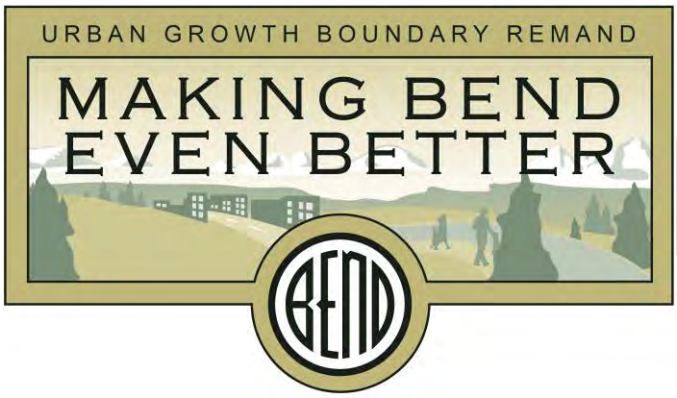
0 0.5 1 2 Miles

MetroQuest Map Pins: Land Use



URBAN GROWTH BOUNDARY REMAND

Prepared 10/30/2014



Bend Buildable Lands Inventory

Bend's Land Base and Growth to 2028

Draft Document: August 14, 2015

ACKNOWLEDGEMENTS

City of Bend

Growth Management Department

Brian Rankin
Karen Swirsky
Wendy Robinson
Damian Syrnyk

Information Technology

Colleen Miller

Consultant Team

Joe Dills, Angelo Planning Group
Mary Dorman, Angelo Planning Group
Becky Hewitt, Angelo Planning Group
Andrew Parish, Angelo Planning Group

Advisory Committees

Residential Lands Technical Advisory Committee

Kristina Barragan
David Ford
Stuart Hicks
Andy High
Allen Johnson
Thomas Kemper
Katrina Langenderfer
Lynne McConnell
Michael O'Neil
Kurt Petrich
Gary Everett
Don Senecal
Sidney Snyder
Kirk Schueler
Stacey Stemach
Mike Tiller, Bend-La Pine Schools
Laura Fritz, Bend Planning Commission (PC)
Steve Jorgensen, Bend Park & Recreation District (BPRD)*
Gordon Howard, Oregon Department of Land Conservation and Development (DLCD)*

Employment Lands Technical Advisory Committee

Ken Brinich
Peter Christoff
Ann Marie Colucci
Todd Dunkelberg
Brian Fratzke
Christopher Heaps
Patrick Kesgard
William Kuhn
Robert Lebre
Dustin Locke
Wesley Price
Damon Runberg
Cindy Tisher
Jennifer Von Rohr
Ron White
Joan Vinci, PC
Wallace Corwin, Bend Economic Development Advisory Board
Jade Mayer, Bend Budget Committee
Tom Hogue, DLCD*

Boundary Technical Advisory Committee

Toby Bayard
Susan Brody
Peter Carlson
Paul Dewey
John Dotson
Ellen Grover
Steve Hultberg
Brian Meece
Charlie Miller
Mike Riley
John Russell
Ron Ross
Sharon Smith
Gary Timm
Rod Tomcho
Robin Vora
Dale Van Valkenburg
Ruth Williamson
Kemper Tom
Price Wes
Rockland Dunn, PC
Scott Edelman, DLCD*
Jim Bryant, Oregon Dept. of Transportation*
Nick Lelack, Deschutes County*

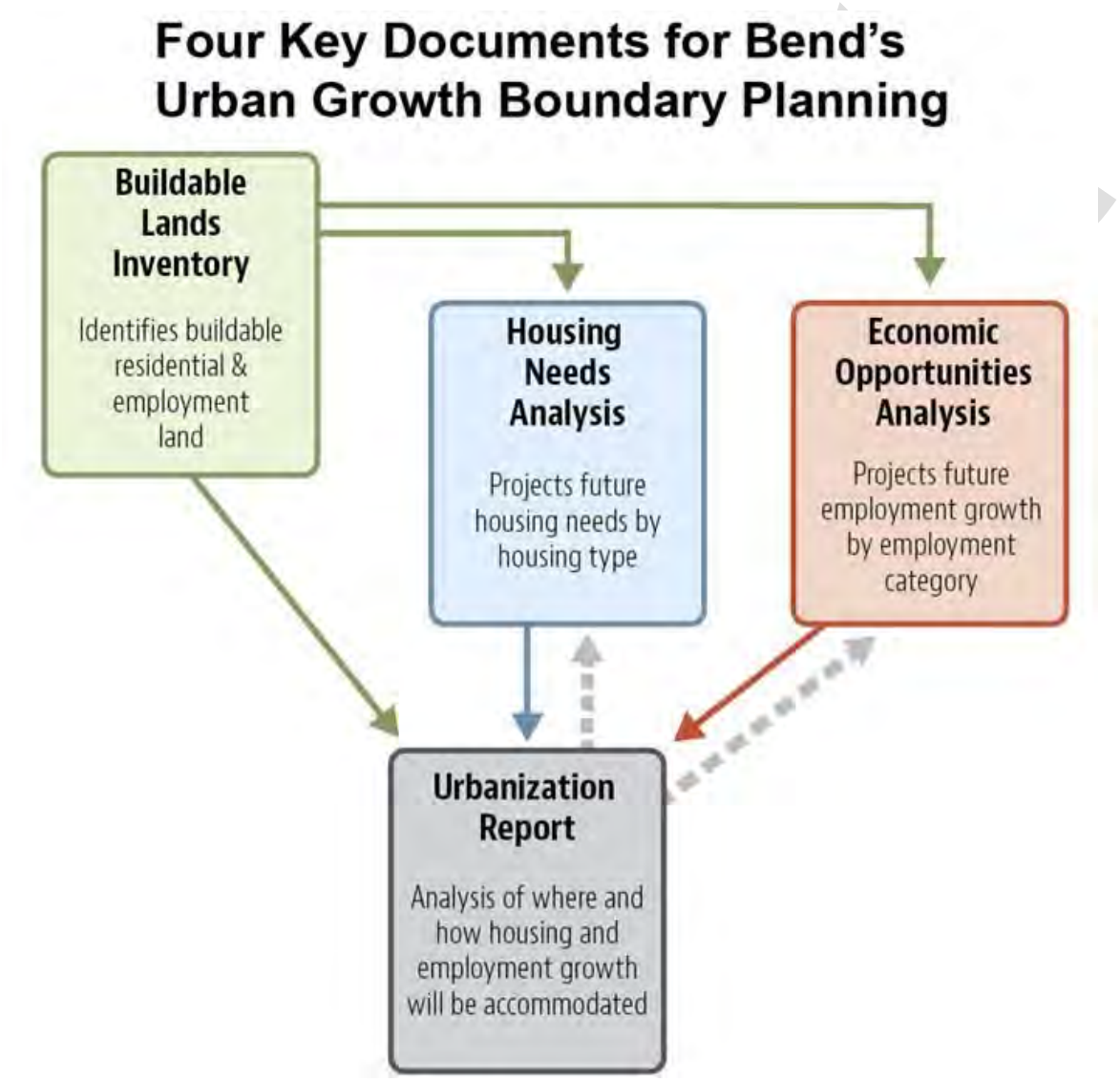
*Denotes Ex-Officio, non-voting members

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Bend Buildable Lands Inventory (BLI) describes the land within the Bend Urban Growth Boundary (UGB) that can be developed to accommodate future residential and employment growth. The determination of developable land in the BLI is a key input for the Housing Needs Analysis, the Economic Opportunities Analysis, and the Urbanization Report, as shown in Figure EX-1.

Figure EX-1. Role of the BLI



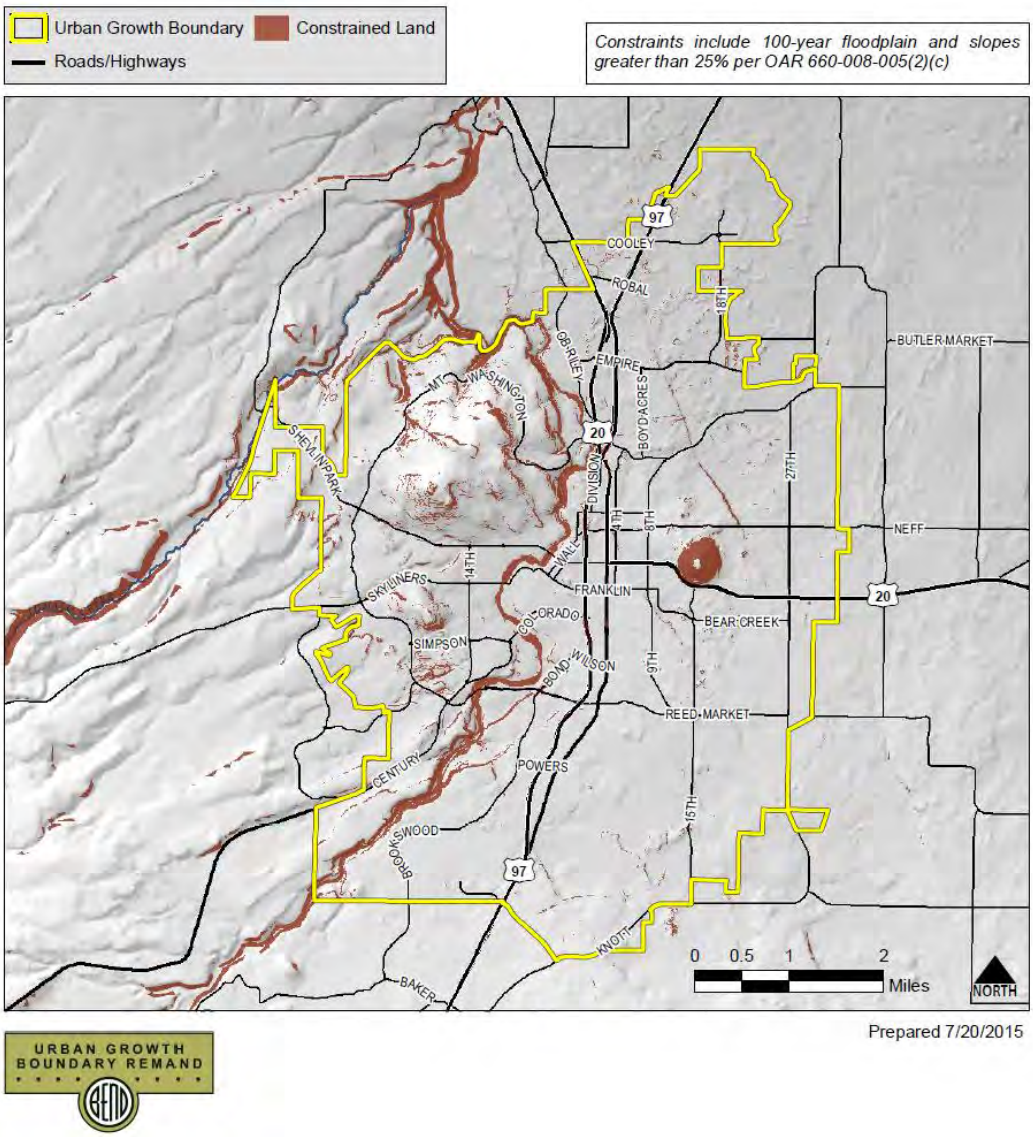
There are four steps to the BLI. Each will be discussed in detail in this report:

Step 1 – Calculate Physical Constraints
Step 2 – Define Residential Land
Step 3 – Define Employment Land
Step 4 – Assign Developable Acreage to Each Parcel

Step 1: Calculate Physical Constraints

Land that is physically constrained is not assumed to be "buildable".[1] "Constrained Acres," or areas with 25% or greater slopes and areas within the Federal Emergency Management Agency (FEMA) 100-year floodplain, were calculated for each tax lot in Bend. Bend's Areas of Special Interest (ASIs) are not allowed to be excluded as unbuildable as they are not acknowledged Goal 5 resources And the development code allows density transfer for residential lands. There are roughly 1,216 acres of constrained land within the UGB, 975 of which lies within tax lots.

Figure EX-1. Physical Constraints (Deschutes County GIS)



[1] OAR 660-008-0005 (2) describes land generally not considered "suitable and available" for development, including areas with slopes of 25% or greater and areas within the 100-year floodplain.

Steps 2 & 3: Define Residential and Employment Land

The categorization of Residential Land and Employment Land and is described in table EX-2. Descriptions of comprehensive plan designations and zones are included in Appendix A.

Table EX-2. Residential and Employment BLI Categories

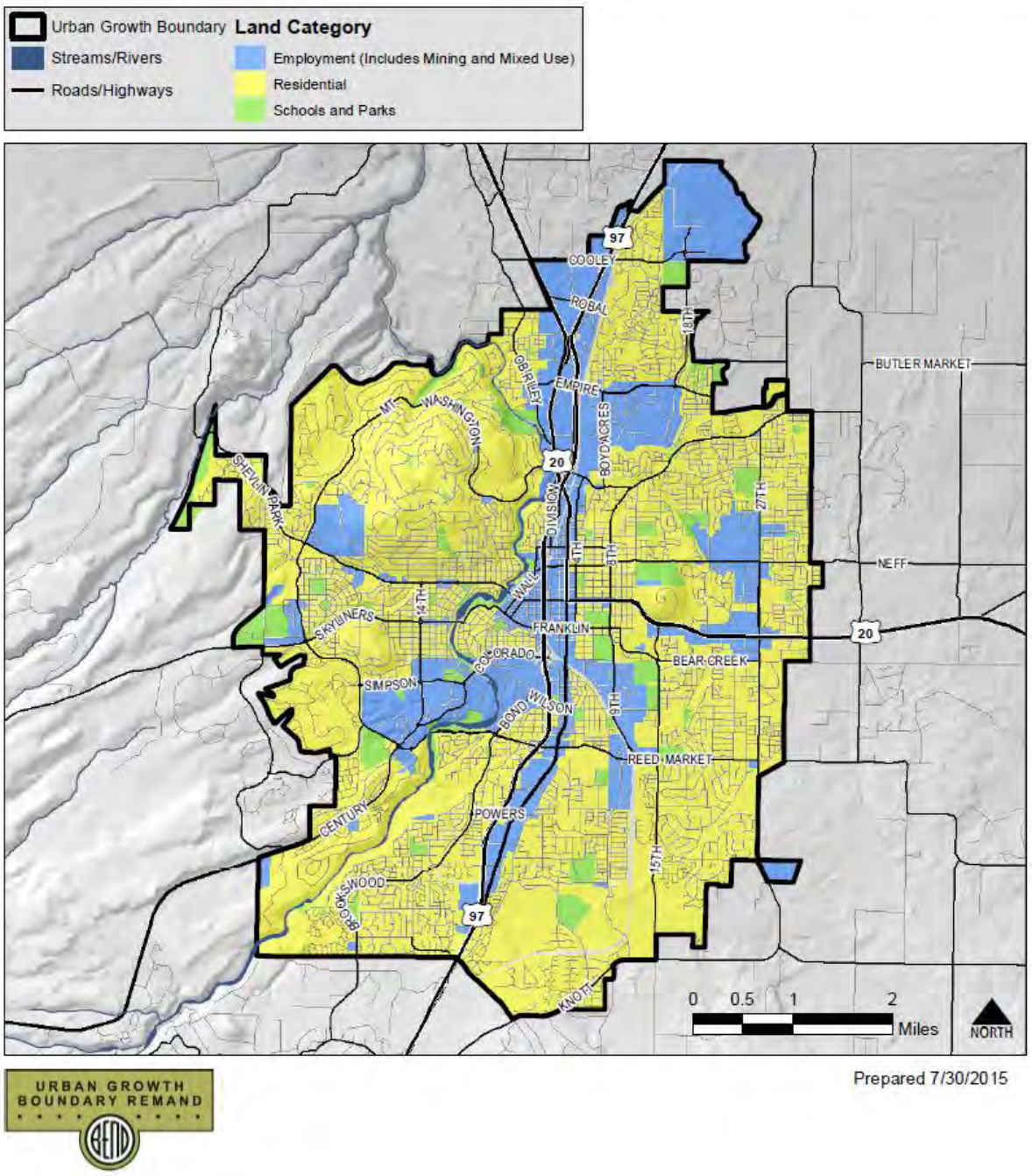
Residential BLI Categories	Employment BLI Categories
Residential Land has a Residential plan designation (RL, RS, RM, RH) or a residential zone category (RL, RS, RM, RH, SR2.5)*, with a few exceptions for special cases *(See Chapter 3 for details).*	**Employment Land** has a plan designation of CC, CG, CB, CL, MR, ME, PO, SM, IL, IG, or PF*, with a few exceptions for special cases *(See Chapter 3 for details)*.
Vacant – Land planned (per Comprehensive Plan map) or zoned (per zoning map) for residential use with no improvements. **Developed** – Land planned or zoned for residential use that is currently developed with the maximum number of dwelling units allowed in the zone, and the size of the lot does not allow for further division. Residential land that contains an employment use is also considered "Developed." **Lots Large Enough for an Additional Unit under Current Zoning *("Partially Vacant")*** – Land planned or zoned for residential use that contains fewer dwelling units than permitted in the zone, but the lot is not large enough to divide under current zoning. **Lots Large Enough to Divide Under Current Zoning *("Developed with Infill Potential")*** – Land planned or zoned for residential use that is currently developed, but where the lot is large enough to further divide consistent with its current zoning.	**Vacant** - a lot or parcel equal to or larger than one half-acre not currently containing permanent buildings or improvements; or equal to or larger than five acres where less than one half-acre is occupied by permanent buildings or improvements. **Developed** - All other employment land is identified as developed.[2]

* See Appendix A – Glossary.

[2] Developed employment land identified in this BLI includes all employment land that is not vacant, rather than land with a likelihood of redevelopment (as it is defined under Goal 9).

Figure EX-2 depicts the locations of residential and employment lands within the City.[3] Table EX-2 and Table EX-3 show the BLI designation of residential and employment land within the City of Bend.

Figure EX-2. Bend Residential and Employment Land



[3] Some properties have a zoning designation that is different from their comprehensive plan designation. For example – many properties with a "PF" plan designation have "RS" zoning. In these cases, residential zoning designations and residential uses put the property into the "Residential Land" category.

Table EX-2. BLI Designation of Residential Tax Lots

BLI Designation of Residential Tax Lots	Number of Tax Lots	Total Acres
Developed	25,845	7,733
Lots Large Enough to Divide Under Current Zoning *("Developed with Infill Potential")*	4,572	2,555
Lots Large Enough for Additional Units under Current Zoning *("Partially Vacant")*	828	93
Publicly Owned (excludes schools and parks)	177	413
Vacant	2,859	1,846
TOTAL	**34,281**	**12,640.6**

Table EX-3. BLI designation of Employment Tax Lots

BLI Designation of Employment Tax Lots	Number of Tax Lots	Total Acres
Developed	3,452	2775
Vacant	247	1,048
Total	**3,699**	**3,823**

Step 4: Assign Developable Acreage to Each Parcel

Each parcel within the City of Bend was assigned vacant acreage and developed acreage, based on its BLI designation. The methodology for assigning vacant acreage to infill categories is described in detail in Chapter 3 of this document. Table EX-4 lists the amount of vacant and developed acreage by plan designation for employment and residential land. These acreages are the basis for the jobs and housing capacity estimates used in the Housing Needs Analysis, the Economic Opportunities Analysis, and the Urbanization Report.

Table EX-4. Vacant and Developed Acres by Plan Designation

Plan Designation	Vacant Acres	Developed Acres
CB	0	39
CC	12	66
CG	117	614
CL	87	304
IG	8	185
IL	643	606
MDOZ*	73	177
ME	96	200
MR	36	162
PF	344	513
PO	6	0
PO/RM/RS	0	6
RH	24	114
RL	178	1,404
RM	287	899
RS	1,971	6,951
SM	19	0
URA	0	115
Grand Total	**3,899**	**12,355**

**Land within the Medical District Overlay Zone (MDOZ) is primarily within residential plan designations, but the overlay encourages development of medical and office uses. It is treated separately within the BLI where possible.*

Conclusion

The primary outcome of the Buildable Lands Inventory is a GIS dataset with values for vacant and developed acres for each parcel within the City of Bend UGB. These values provide a basis for estimating future development and redevelopment. The assumptions that have been applied to this inventory to estimate capacity are documented in the Urbanization Report, which estimates the potential for growth of housing and jobs within the current UGB based on existing conditions, as well as alternate growth scenarios involving changes to the Comprehensive Plan map and development code.

CHAPTER 1. INTRODUCTION

This report is the City of Bend's Buildable Land Inventory (BLI), as defined and required by Oregon Administrative Rule (OAR) 660-024-0050, the Bend Urban Growth Boundary (UGB) Remand[4], and other relevant law. This report provides information pertaining to the background, process, and results of the Bend Buildable Lands Inventory; detailed maps and methodology are provided as appendices.

Role of the BLI

The BLI is a supporting document of the City of Bend Comprehensive Plan[5]. In simplest terms, the BLI documents the urban land supply of Bend, and estimates the growth capacity for housing and jobs within the existing UGB. It is a key part of the factual base for growth management policy in Bend. The BLI also serves a very specific role, required by law, in analyzing and documenting specific categories of buildable land and providing the basis for estimating capacity for growth within Urban Growth Boundary (UGB). The BLI is one of four inter-related documents that are central in the City's planning related to the UGB. The purpose and major components of each of these documents are summarized in **Error! Reference source not found.**.

[4] Remand and Partial Acknowledgement Order 10-Remand-Partial Acknow-001795, November 2, 2010.

[5] The City of Bend is in the process of updating its General Plan, which includes changing the name of the document to the "Comprehensive Plan." These terms are synonymous and used interchangeably.

Table 1: Four Key Documents for Bend's Urban Growth Boundary Planning

Document	Buildable Land Inventory (BLI)	Housing Needs Analysis (HNA)	Economic Opportunities Analysis (EOA)	Urbanization Report (UR)
Purpose	Identify buildable residential & employment land by category	Address the requirements for planning for needed housing, including analysis of national, state, and local demographic and economic trends, and recommendations for a mix and density of needed housing types	Document historical employment and demographic trends, the projection of employment growth, identification of target industries, and evaluation of site characteristics needed to accommodate target industries	Analysis of where and how Bend's future growth will be accommodated, both inside the existing Urban Growth Boundary (UGB) and in expansion areas
Primary Legal Standards[6]	ORS 197.296 OAR 660, Divisions 8 and 9	Statewide Planning Goal 10: Housing ORS 197.296 and 197.303 OAR 660, Division 8	Statewide Planning Goal 9: Economic Development OAR 660, Division 9	Statewide Planning Goal 14: Urbanization ORS 197.298 OAR 660, Division 24
Key Subject Matter	Development status categories and definitions Methodology for assigning categories and conducting inventory Inventory results: acres by plan designation and development status	Projection of population and total housing growth Housing market and development trends Demographic characteristics and trends Analysis of affordability Estimate of needed housing (mix and density) Comparison of housing capacity to need	Existing policy and vision National, state, local trends Employment projections Target industries Site needs and characteristics Special site needs Redevelopment analysis Comparison of employment capacity to need and characteristics	Methodology for capacity estimates Pre-policy ("base case") capacity estimate for current UGB Efficiency measures (EMs) proposed Current UGB capacity with EMs UGB alternatives evaluation methodology and results Proposed UGB expansion and summary of Goal 14 evaluation results

[6] OAR = Oregon Administrative Rules; ORS = Oregon Revised Statutes

Framework for a Buildable Lands Inventory

The following section describes Oregon's requirements for a BLI and some key concepts necessary for understanding the BLI.

State Statues and Administrative Rules: Residential Land

Oregon state statute and administrative rules require local governments to produce a local buildable lands inventory as part of preparation of a Housing Needs Analysis. That BLI "must document the amount of buildable land in each residential plan designation."[7]

State statute identifies the following categories of buildable lands:[8]

> *(A) Vacant lands planned or zoned for residential use;*
>
> *(B) Partially vacant lands planned or zoned for residential use;*
>
> *(C) Lands that may be used for a mix of residential and employment uses under the existing planning or zoning; and*
>
> *(D) Lands that may be used for residential infill or redevelopment.*

It further requires that the local government "demonstrate consideration of:"[9]

> *(A) The extent that residential development is prohibited or restricted by local regulation and ordinance, state law and rule or federal statute and regulation;*
>
> *(B) A written long term contract or easement for radio, telecommunications or electrical facilities, if the written contract or easement is provided to the local government; and*
>
> *(C) The presence of a single family dwelling or other structure on a lot or parcel.*

The State administrative rules further define buildable land in the context of a Residential BLI as follows:[10]

> *(2) "Buildable Land" means residentially designated land within the urban growth boundary, including both vacant and developed land likely to be redeveloped, that is suitable, available and necessary for residential uses. Publicly owned land is generally not considered available for residential uses. Land is generally considered "suitable and available" unless it:*
>
> > *(a) Is severely constrained by natural hazards as determined under Statewide Planning Goal 7;*

[7] OAR 660-008-0010, effective February 14 2012

[8] ORS 197.296(4)(a), effective 2003

[9] ORS 197.296(4)(b), effective 2003

[10] OAR 660-008-0005(2), effective February 14 2012

(b) Is subject to natural resource protection measures determined under Statewide Planning Goals 5, 6, 15, 16, 17 or 18;

(c) Has slopes of 25 percent or greater;

(d) Is within the 100-year flood plain; or

(e) Cannot be provided with public facilities.

(6) "Redevelopable Land" means land zoned for residential use on which development has already occurred but on which, due to present or expected market forces, there exists the strong likelihood that existing development will be converted to more intensive residential uses during the planning period.

State Statues and Administrative Rules: Employment Land

A similar inventory is required for employment land as part of the preparation of an Economic Opportunities Analysis (EOA). The categories used in the EOA inventory differ from those used for residential lands, and are as follows:[11]

(1) "Developed Land" means non-vacant land that is likely to be redeveloped during the planning period.

(14) "Vacant Land" means a lot or parcel:

(a) Equal to or larger than one half-acre not currently containing permanent buildings or improvements; or

(b) Equal to or larger than five acres where less than one half-acre is occupied by permanent buildings or improvements.

(3) Inventory of Industrial and Other Employment Lands. Comprehensive plans for all areas within urban growth boundaries must include an inventory of vacant and developed lands within the planning area designated for industrial or other employment use.

Prior BLI and Remand Issues

The Bend Urban Growth Boundary Remand (Remand) required the City to make a number of changes to the way residential land was classified for the purposes of the BLI and the way the capacity of that land was estimated (Sub-issue 2.2). The City has done a significant amount of work to address the issues raised in the remand related to the BLI, summarized below.

Definitions and Categories

DLCD provided the following definitions to use while conducting a GIS parcel-based analysis of residentially planned or zoned land in the Bend UGB.[12] Where definitions were not provided in

[11] OAR 660-009-0005, effective [date].

[12] E-mail from Gloria Gardiner, DLCD, to Damian Syrnyk, October 21, 2010 and e-mail response from Gloria Gardiner, DLCD, to Karen Swirsky, dated June 9, 2011.

rule or statute, the Department provided one consistent with the terms outlined in ORS 197.296(4)(a).

- **Vacant** – Land planned or zoned for residential use that shows no improvement value in the assessor's data.
- **Developed** – Land planned or zoned for residential use that is currently developed with the maximum number of dwelling units allowed in the zone, and the size of the lot does not allow for further division.
- **Lots Large Enough for an Additional Unit under Current Zoning** ("Partially Vacant") – Land planned or zoned for residential use that contains fewer dwelling units than permitted in the zone, but the lot is not large enough to divide under current zoning.
- **Lots Large Enough to Divide Under Current Zoning** ("Developed with Infill Potential") – Land planned or zoned for residential use that is currently developed, but where the lot is large enough to further divide consistent with its current zoning.
- **Redevelopable Land -** In addition to the four categories above, the city must consider whether developed land may be redevelopable within the planning horizon. Land may be considered redevelopable only if there exists "the strong likelihood that existing development will be converted to more intensive residential uses during the planning period." Note that the planning period in this UGB Remand process is between 2008 and 2028.

These definitions and their operationalization within the BLI are further detailed in "Step 2 – Defining Residential Land" later in this document.

Exclusions

In 2008, the city identified certain categories of tax lots as unbuildable in the BLI, including:

- lots and parcels smaller than 0.5 acres with no improvements;
- lots and parcels subject to private, Covenants, Conditions and Restrictions (CC&Rs); and
- lots and parcels with physical constraints over 50 percent or more of the lot.

The Remand required the city to include vacant lots and parcels under 0.5 acres, to include land subject to CC&Rs "unless it adopts specific findings, supported by an adequate factual base, that show why the lands are not available for development or redevelopment during the planning period," and to reexamine the land identified as "constrained" to determine whether the remainder of the lot is buildable.[13]

This update of the BLI complies with these requirements. The City has included vacant lots and parcels under 0.5 acres and to exclude only the portion of a lot that has physical constraints on

[13] LCDC Remand Order, page 26.

it, leaving the remainder. The City has also conducted research on CC&Rs in effect on subdivisions within the UGB to determine whether and to what extent they restrict further development and infill. Restrictive CC&Rs have been addressed specifically in the BLI and Envision Tomorrow model.[14] A description of how CC&Rs have been addressed can be found in Step 2 – Defining Residential Land.

Time Periods and Data used in the Buildable Lands Inventory

Timing of Data

The City of Bend originally prepared a BLI in 2008 to support the 2008 UGB expansion proposal. It was refined in 2011 to use new definitions without updating the underlying data. This BLI is a new inventory, applying new definitions to a new parcel dataset from July 2014.

Source Data

This BLI is based on July 2014 assessors data from Deschutes County augmented with information from city GIS and building permit data. The underlying data and its sources are summarized below.

Tax lots and Assessor's Data. Deschutes County GIS tax lot data dated July 27, 2014 was used to create a base layer of all properties inside and within 3 miles of the existing Bend UGB. General property information from the Deschutes County Assessor's Office was included, containing attributes such as:

- ownership information (including public agency ownership, e.g. City, County, State, Federal, College District, Irrigation District, Parks District, School District, and Other Special District);
- property classification (for tax assessment purposes),
- structure information (including building square footage and number of structures); and
- improvement value (real market improvement value according to the tax assessors office).

Physical Constraints. County data for areas with 25% or greater slopes and within the FEMA 100-year floodplain were used to determine the constrained acreage of Bend tax lots.[15]

Zoning and Comprehensive Plan Designation. These designations were applied to each tax lot. If the tax lot contained two or more zones, they were split into multiple polygons so they could be accounted for individually.

[14] Envision Tomorrow is a scenario planning tool used to model growth and redevelopment. It has been used extensively in the Bend UGB Remand work to evaluate growth scenarios and identify land capacity. See Appendix D for additional description.

[15] Bend's Areas of Special Interest (ASIs) are not allowed to be excluded as unbuildable as they are not acknowledged Goal 5 resources.

Property Use and Type. These attributes indicate the general property use (e.g. Single Family Residential, Employment, Open Space) and specific type (e.g. Duplex, Office, Golf Course) on the tax lot. These were identified through a combination of Assessor's Office data, City building permit data, aerial photography, and existing City tax lot inventory data.

Number and Type of Existing Housing Units. The number of dwelling units on each property by type of dwelling unit was established, as with the property use and type, through a combination of Assessor's Office data, City building permit data, aerial photography, and existing City tax lot inventory data.

Zoned Development Potential (Residential Land Only). The maximum number of units allowed by current zoning based on lot size and maximum density for the applicable zone/plan designation, and whether the lot size is more than double the minimum lot size (for single family detached housing) for the zone.

2008 BLI data. Data from previous BLI work was used as a reference and to provide context for specific tax lots.

CHAPTER 2: BUILDABLE LANDS INVENTORY

Overview

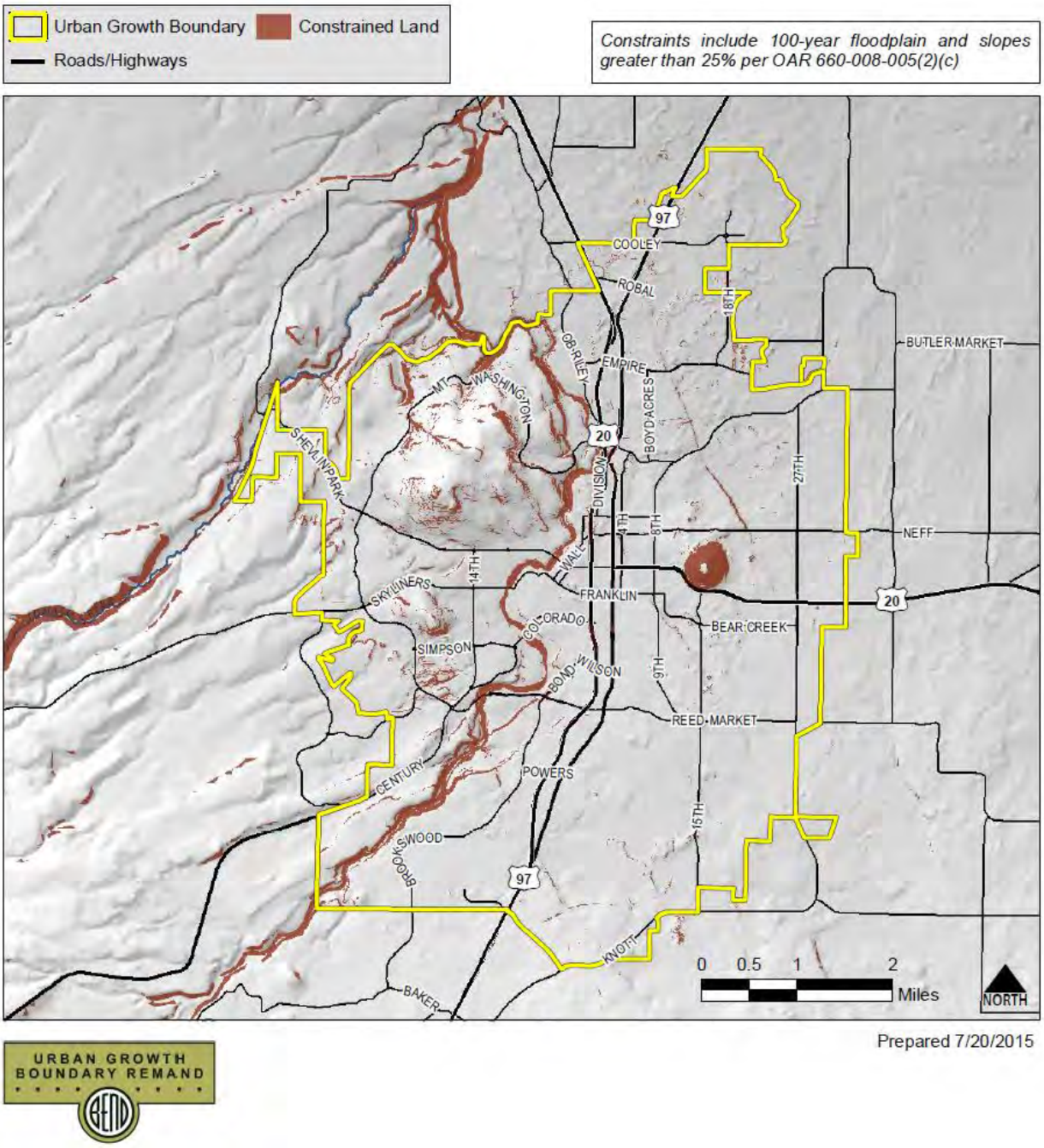
The methods used, and inventory results, are described in this chapter and organized into the four steps used to prepare the BLI. The four steps are:

- **Step 1 –** Calculate Physical Constraints
- **Step 2** – Define and Categorize Residential Land
- **Step 3** – Define and Categorize Employment Land
- **Step 4** – Assign Developable Acreage to Each Parcel

Step 1 – Calculate Physical Constraints

Land that is physically constrained per state requirements and definitions is assumed to be not "buildable" for the purposes of this inventory. "Constrained Acres," or areas with 25% or greater slopes and areas within the FEMA 100-year floodplain, were calculated for each tax lot in Bend. Bend's Areas of Special Interest (ASIs) are not allowed to be excluded as unbuildable as they are not acknowledged Goal 5 resources. There are roughly 1,216 acres of constrained land within the UGB, 975 of which lies within tax lots.

Figure 1. **Physical Constraints (Deschutes County GIS)**



Step 2 - Define and Categorize Residential Land

Following is a detailed description of how different categories of residential land were defined for purposes of the inventory, as well as tables summarizing the total acres of land in each category.

Definition

Lands with a Residential plan designation (RL, RS, RM, RH), and lands with a residential zone category (RL, RS, RM, RH, SR2.5), are categorized as Residential Land, except for the "Special Cases" listed below.[16]

- **Land within School District or Park District Ownership** was considered unavailable for residential development.
- **Land in the Medical District Overlay Zone (MDOZ)** with a residential plan category was identified as "Mixed Use" and treated as part of the Employment land supply, but with the ability to accommodate some housing.[17]
- **Land with an employment plan designation but zoned Urban Area Reserve** (UAR), which is primarily a holding zone and does not indicate availability for urban residential development, was identified as Employment land.[18]
- **Land planned or zoned for surface mining** (SM) was identified as Employment land.[19]

Other land in mixed-use and commercial designations (not zoned for residential use) that allow residential development were treated as part of the Employment land supply, but with the ability to accommodate some housing, based on past trends.[20]

---

[16] There are over 200 parcels with residential zones and non-residential plan designations; however, the vast majority are developed. Those that are vacant are mostly identified as "special cases".

[17] The MDOZ is a special planned district applied to land around the St. Charles Medical Center intended to "allow for the continuation and flexible expansion of the hospital, medical clinics and associated uses in a planned and coordinated manner." (Bend Development Code, Section 2.7.510.A.) The residential, public, and institutional uses permitted or conditionally allowed in the base residential zones are subject to the same regulations , but hospitals are allowed in the RH zone within the overlay, and other limited commercial uses, including offices, are allowed or conditionally allowed in all zones within the MDOZ.

[18] There are roughly 51 acres on two tax lots designated ME but zoned UAR.

[19] There is one taxlot with a RS plan designation and a SM zone, and one with a SM plan designation and an RS zone. In total, these two taxlots cover roughly 35 acres inside the UGB, with both currently mined (one extends outside the UGB, with the mining operations located outside the current boundary).

[20] Bend has three mixed-use districts: the Mixed Employment District (ME), the Mixed Use Riverfront District (MR) and the Professional Office District (PO). Each of these allows some housing, as well as various combinations of retail, commercial, public/institutional, and light industrial uses. In addition, all four of the city's commercial zones (CB, CC, CL, and CG) allow new residential use outright as part of a mixed-use development.

BLI Status

Pursuant to the statues and administrative rules and guidance from DLCD summarized in Chapter 1 (see pages 3 and 4), each tax lot was assigned a BLI status corresponding to one of the following categories:

- Vacant
- Developed
- Lots Large Enough for an Additional Unit under Current Zoning ("Partially Vacant")
- Lots Large Enough to Divide Under Current Zoning ("Developed with Infill Potential")

Details of the way the definitions provided by statute, rule, and DLCD were operationalized for the purposes of this analysis are provided below.

Vacant: Land planned or zoned for residential use that has $0 in improvement value. Tax lots that are planned or zoned for residential use, but are dedicated for other uses such as parks, common areas, rights of way or utilities are excluded.[21] Publicly owned land is also excluded.[22]

Developed: Land planned or zoned for residential use that is currently developed with the maximum number of dwelling units allowed in the zone. Residentially zoned land that is currently developed with an employment or institutional use is also categorized as Developed. Properties with restrictive Covenants, Conditions, and Restrictions (CC&Rs) and containing a dwelling were categorized as fully developed, even where minimum lot sizes are large enough to allow land division under the current zoning.[23]

Lots Large Enough for an Additional Unit under Current Zoning ("Partially Vacant"): Land planned or zoned for residential use that has an improvements value greater than $0, but contains fewer dwelling units than permitted in the zone. Based solely on lot size (not considering limiting factors such as setback and frontage requirements, lot coverage, or location

[21] Private Open Space, including common areas that are part of an approved subdivision and/or owned by a Homeowners Association, unbuildable fragments, canal right of way, cemeteries, private roads, RV parks, and developed golf courses were identified as developed. The only exception is the undeveloped portion of the Back Nine golf course at Mountain High, which was considered vacant.

[22] As stated in ORS 660-008-005(2), publicly owned land is generally not considered available for residential uses. Publicly owned land was identified and designated "Public Land" and not considered vacant for residential purposes, unless information was available indicating otherwise.

[23] CC&Rs were reviewed to determine whether they limit or preclude infill and redevelopment. Only those parcels subject to CC&Rs that restrict addition of units to the lot and/or restrict land division were identified as having restrictive CC&Rs and categorized as fully developed. Note that vacant, platted lots subject to CC&Rs were categorized as vacant, but were also assumed not to have the potential for more than one dwelling unit. See the Urbanization Report for additional detail.

of existing structures), additional units could be built on the site, but the lot is not large enough to further divide.[24]

Lots Large Enough to Divide under Current Zoning ("Developed with Infill Potential"): Land planned or zoned for residential use that is currently developed, but where the lot is large enough to further divide consistent with its current zoning, based on the minimum lot size of the applicable zone. As with Partially Vacant land, this category does not consider limiting factors such as setback and frontage requirements, lot coverage, or location of the existing unit on the lot.[24]

Note that redevelopable land is not identified as a BLI category. Theoretically, the developed portions of parcels that have additional zoned development potential (those that are identified as partially vacant or developed with infill potential) could allow for redevelopment; however, land may be considered redevelopable only if there exists "the strong likelihood that existing development will be converted to more intensive residential uses during the planning period."[25] Redevelopment potential is addressed in the Urbanization Report.

[24] To identify partially vacant lands and land developed with infill potential, the maximum number of units that could be built on each residential tax lot was calculated, based on the maximum density allowed per the development code (which is expressed as a gross density) and the tax lot size. The number of existing units was then subtracted from the maximum number of units allowed. If one or more new units would be allowed based on the maximum density allowed by the zoning, the lot size was compared to the minimum lot size for single family detached housing in the zone. If the lot was more than double the minimum lot size, it was categorized as developed with infill potential. If it was not (but the maximum density of the zone would allow one or more additional units), the tax lot was categorized as partially vacant. (Considerations such as setback and frontage requirements, lot coverage, or location of the existing unit on the lot were not considered, although those will be limiting factors in many cases.)

[25] OAR 660-008-0005(7), effective February 14 2014.

Figure 2. **BLI Status of Residential Lands Map (2015)**

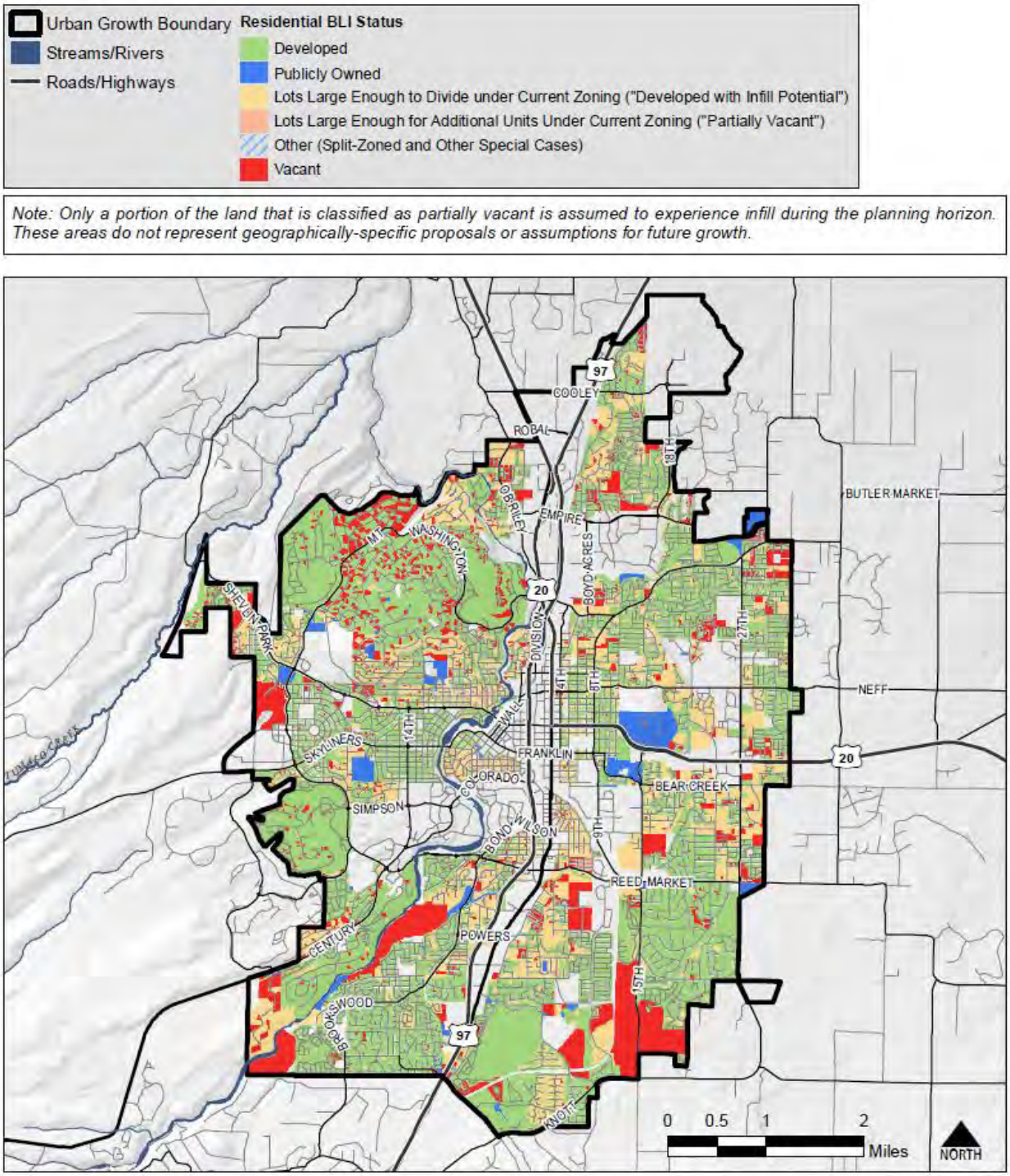


Table 1. BLI Designation of Residential Tax Lots

BLI Designation of Residential Tax Lots	Number of Tax Lots	Total Acres
Developed	25,845	7,733
Lots Large Enough to Divide Under Current Zoning *("Developed with Infill Potential")*	4,572	2,555
Lots Large Enough for Additional Units under Current Zoning *("Partially Vacant")*	828	93
Publicly Owned (excludes Schools and Parks)	177	413
Vacant	2,859	1,846
TOTAL	**34,281**	**12,640.6**

Figure 3. **Size Distribution of Tax Lots by Residential BLI Status**

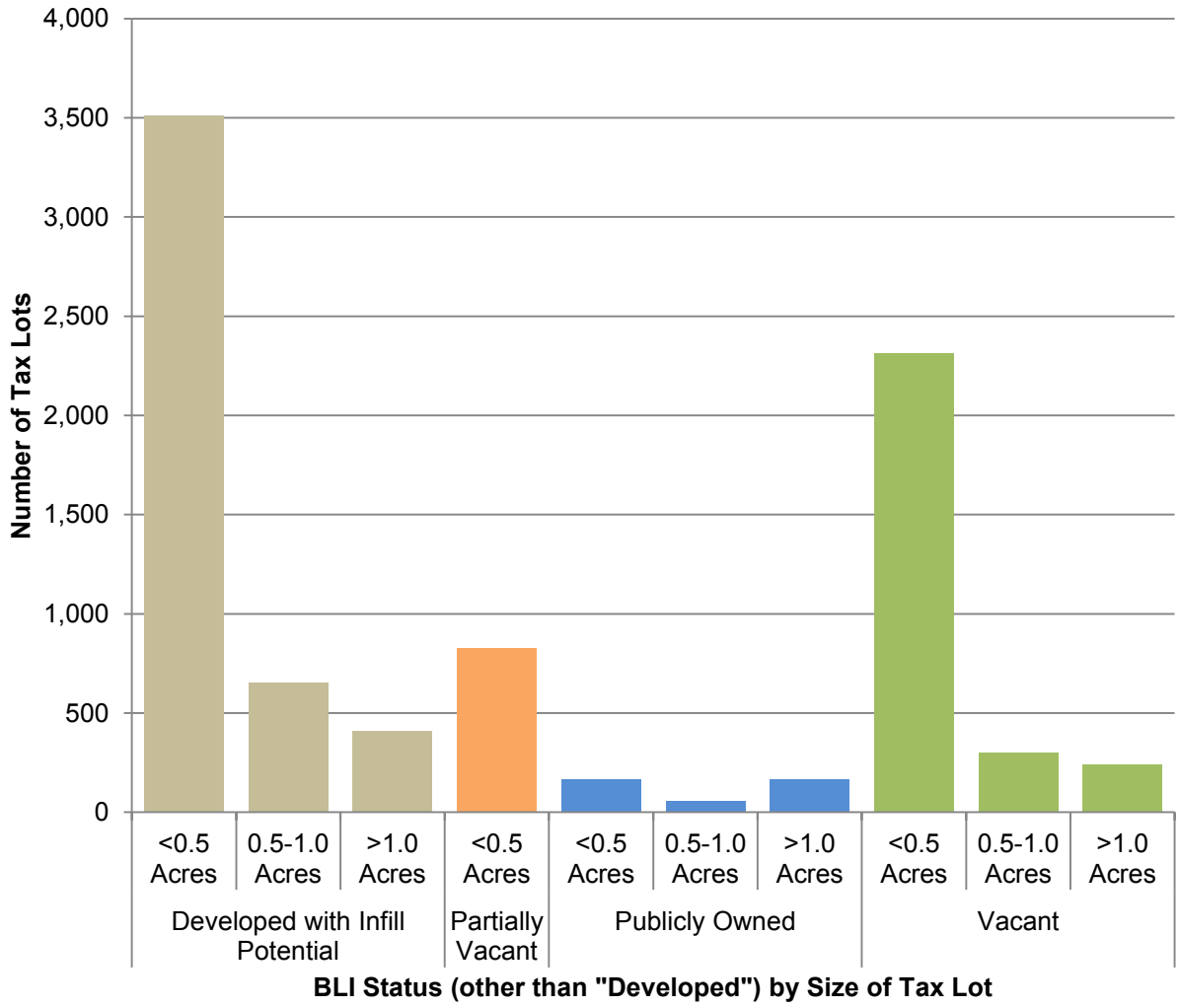


Table 2. BLI Status for Residential Land by Comprehensive Plan Category

Comprehensive Plan Designation	Number of Taxlots	Total Acres
Commercial / Industrial Designation*	**54**	**8.0**
Developed	53	6.8
Developed with infill potential	0	0.0
Partially Vacant	0	0.0
Vacant	0	0.0
Publicly Owned	1	1.2
PF	**164**	**427.5**
Developed	68	47.2
Developed with infill potential	2	0.6
Partially Vacant	0	0.0
Vacant**	69	153.3
Publicly Owned	25	226.3
RH	**526**	**136.9**
Developed	200	45.6
Developed with infill potential	164	46.2
Partially Vacant	64	6.3
Vacant	88	19.5
Publicly Owned	10	19.3
RL	**3,019**	**1,613.0**
Developed	2,835	1,366.7
Developed with infill potential	98	184.9
Partially Vacant	1	0.5
Vacant	70	54.0
Publicly Owned	15	6.9
RM	**4,891**	**1,225.7**
Developed	1,977	336.8
Developed with infill potential	1,614	597.0
Partially Vacant	750	85.1
Vacant	518	184.2
Publicly Owned	32	22.5
RS	**25,614**	**9,176.1**
Developed	20,702	5,909.1
Developed with infill potential	2,694	1,726.1
Partially Vacant	13	1.6
Vacant	2,112	1,434.9
Publicly Owned	93	104.5

Comprehensive Plan Designation	Number of Taxlots	Total Acres
UAR	**13**	**53.4**
Developed	10	20.7
Developed with infill potential	0	0.0
Partially Vacant	0	0.0
Vacant	2	0.1
Publicly Owned	1	32.5
Grand Total	**34,281**	**12,640.6**

** These lands have a comprehensive plan designation of CC, CG, CL, or IL, but have a zoning designation of RS or RM and are considered part of the Residential inventory.*

*** The vacant land that has a PF designation and is included in the residential BLI is zoned RS and includes land platted as part of residential subdivisions, one large parcel (roughly 14 acres in southeast Bend) under common ownership with adjacent vacant RS-designated land, and the Central Oregon Irrigation District (COID) site that the COID has indicated should be considered available for residential uses.*

Step 3 – Define and Categorize Employment Land

Following is a detailed description of how different types of employment land were defined for purposes of the BLI and tables summarizing the total acres of land in different categories.

Definitions

The BLI status for all land planned or zoned for employment use (including mixed use designations & zones) was assigned using the statutory definitions for employment land, with the exception of school and park land.[26]

- Vacant - a lot or parcel equal to or larger than one half-acre not currently containing permanent buildings or improvements; or equal to or larger than five acres where less than one half-acre is occupied by permanent buildings or improvements.
- Developed - All other employment land is identified in the BLI map as developed, although only a subset of this will meet the state definition of “developed” land that may be part of the inventory of available employment land ("Developed Land" means non-vacant land that is likely to be redeveloped during the planning period).

A map of BLI status of employment lands is shown in Figure 6. Detailed maps are provided in Appendix A.

[26] OAR 660-009-0005(1) and (14)

Table 3. Tax Lots and Acres by Employment BLI Status

Employment BLI Status	Number of Tax Lots	Total Acres
Developed	3,451	2,761.8
Vacant	245	1012.7
Other*	3	48.3
Grand Total	**3,699**	**3,871.2**

** "Other" designations are addressed in Special Cases the Urbanization Report. These taxlots are related to OSU and one parcel partially within the UGB.*

Figure 4. **Developed and Vacant Employment Land by Number of Tax Lots**

Table 4. Employment Land by Comprehensive Plan Designation

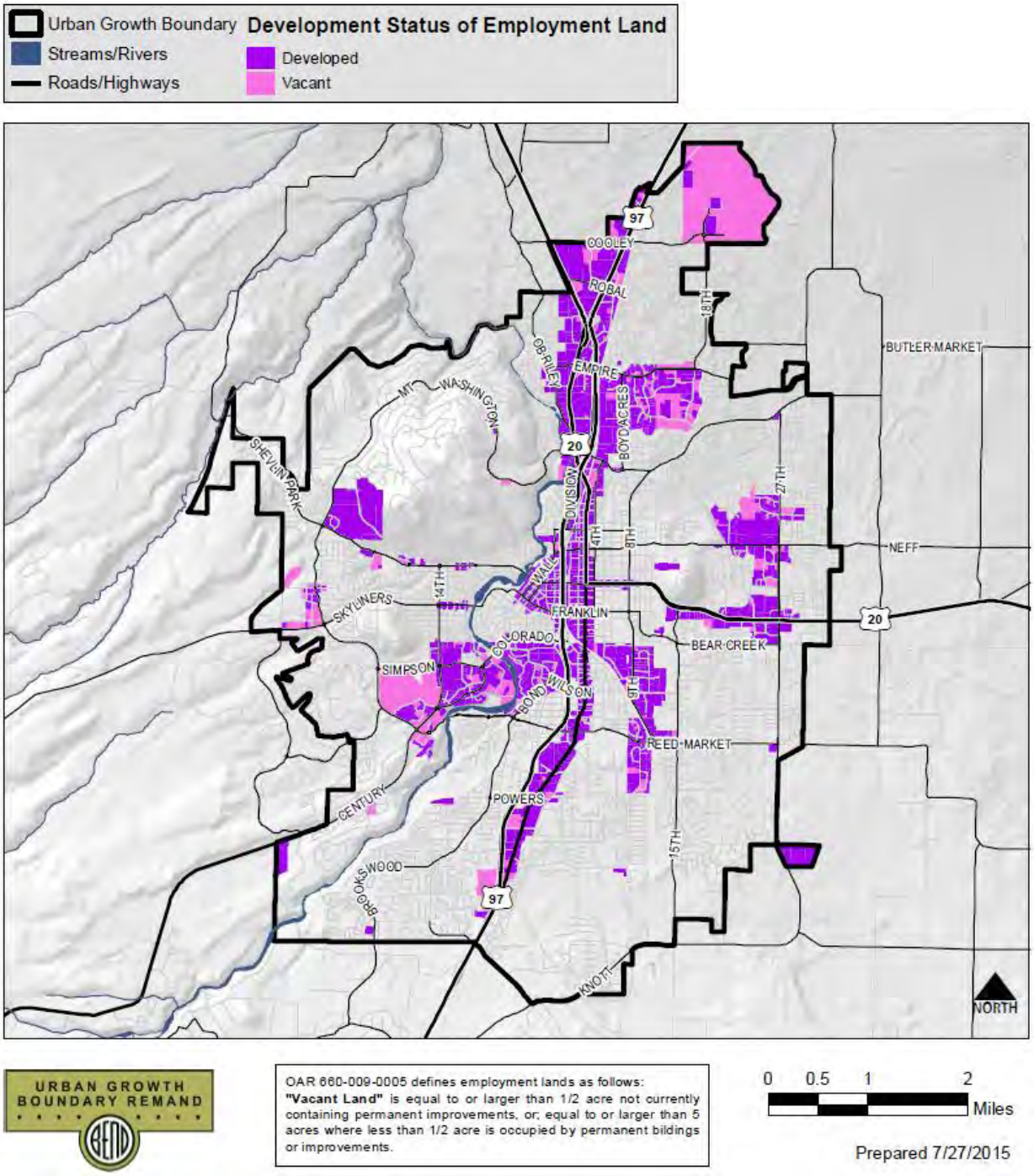
Comprehensive Plan Designation	Number of Taxlots	Total Acres
CB	**322**	**38.5**
Developed	322	38.5
Vacant	0	0.0
CC	**180**	**77.8**
Developed	173	65.8
Vacant	7	12.0

Comprehensive Plan Designation	Number of Taxlots	Total Acres
CG	**564**	**724.8**
Developed	515	627.8
Vacant	49	97.0
CL	**763**	**374.1**
Developed	734	305.1
Vacant	29	69.0
IG	**152**	**194.1**
Developed	146	185.7
Vacant	6	8.4
IL	**669**	**1247.5**
Developed	579	647.0
Vacant	90	600.5
MDOZ*	**186**	**250.7**
Developed	126	75.9
Vacant	20	55.2
ME	**335**	**297.1**
Developed	318	259.0
Vacant	17	38.1
MR	**453**	**202.6**
Developed	435	162.2
Vacant	18	40.3
PF	**45**	**355.2**
Developed	38	269.3
Vacant	7	86.0
PO	**2**	**6.1**
Developed	0	0.0
Vacant	2	6.1
PO/RM/RS	**25**	**5.8**
Developed	25	5.8
Vacant	0	0.0
RS	**1**	**5.3**
Other**	1	5.3
SM	**2**	**43.1**
Other**	2	43.1
Grand Total	**3,699**	**3822.7**

** Land within the Medical District Overlay Zone (MDOZ) is primarily within residential plan designations, but the overlay encourages development of medical and office uses. It is treated separately within the BLI where possible.*

*** "Other" designations are addressed in Special Cases the Urbanization Report. These taxlots are related to OSU and one parcel partially within the UGB.*

Figure 5. **Employment BLI Status Map (2015)**



Step 4 – Assign Developable Acreage

After assigning a BLI category to residential and employment land, the next step is to identify how much of the land that has some remaining development potential is available. To this end, this BLI uses three attributes related to development capacity for each parcel: "Vacant Acres," "Developed Acres," and "Constrained Acres". "Vacant Acres" are available for development; "Developed Acres" are developed but may potentially undergo redevelopment[27]; and "Constrained Acres," such as steep slopes or floodplains, are undevelopable. The assignment of acreages to these three categories was done based on the BLI categories described in the previous sections. The Urbanization Report describes how this capacity, measured in acres, is translated into projected housing units and jobs.

Constrained acres are identified first, based on the physical constraints listed in Step 1 (see page 7). The remaining acreage of each parcel is classified as vacant or developed as described below.

Developable Acreage: Residential Land

The methodology for assigning vacant and developed acres for residential land is summarized below by BLI category.

- **Vacant –** All unconstrained acreage was coded as vacant. Developed acreage was set to zero.
- **Developed** – All unconstrained acreage was coded as developed. Vacant acreage was set to zero.
- **Lots Large Enough for an Additional Unit under Current Zoning** ("Partially Vacant") and **Lots Large Enough to Divide Under Current Zoning** ("Developed with Infill Potential") – The overall assumption is that a lot in this category is made up of a mix of developed and vacant land. The amount of land that is committed to existing structures was estimated based on building footprint information (where available) and/or zoning requirements. Where there was less than ½ acre available after accounting for land committed to existing structures, the unconstrained portion of the tax lot was coded as Developed. Where there was greater than ½ acre available, the land committed to existing structures was coded as developed, and the estimated remaining available amount was coded as Vacant. [28]

[27] See Chapter 2 of the Urbanization Report for methodology used in forecasting redevelopment.

[28] Methodology for "Partially Vacant" and "Developed with Infill Potential" is as follows:

1. Calculate Zoning Required Acres - Methodology was based on Table 2.1.500 from Bend's Zoning Code. The area that is "committed" based on the existing zoning equals the number of units times the minimum lot size or the area required for each unit. The remaining acreage that is "available" under the existing zoning is then subtracted from the constrained land.
2. Calculate Building Footprint Area - Using a 2004 building footprint layer plus a 10-foot buffer from all mapped buildings, summed the total square feet of building footprint and buffer by tax lot. For tax lots with development but no building footprint information, used average building footprint +

Table 5. Developed and Vacant Acres on Residential Land

Plan Designation and Development Status	Vacant Acres	Developed Acres
Commercial / Industrial Designations*	**0.0**	**8.0**
Developed	0.0	8.0
PF	**153.2**	**53.0**
Developed	0.0	14.4
Developed with infill potential	0.0	0.6
Publicly Owned	0.0	38.1
Vacant	153.2	0.0
RH	**24.3**	**112.4**
Developed	0.0	45.5
Developed with infill potential	4.5	41.6
Partially Vacant	0.3	6.0
Publicly Owned	0.0	19.2
Vacant	19.5	0.0
RL	**177.8**	**1,404.4**
Developed	0.0	1,359.3
Developed with infill potential	126.6	41.0
Partially Vacant	0.0	0.5
Publicly Owned	0.0	3.8
Vacant	51.2	0.0
RM	**287.0**	**869.4**
Developed	0.0	310.9
Developed with infill potential	119.0	467.2
Partially Vacant	0.0	84.4
Publicly Owned	0.0	8.6
Vacant	168.0	0.0
RS	**1,965.5**	**6,857.7**
Developed	0.0	5,777.8
Developed with infill potential	639.7	994.3
Partially Vacant	0.0	1.6

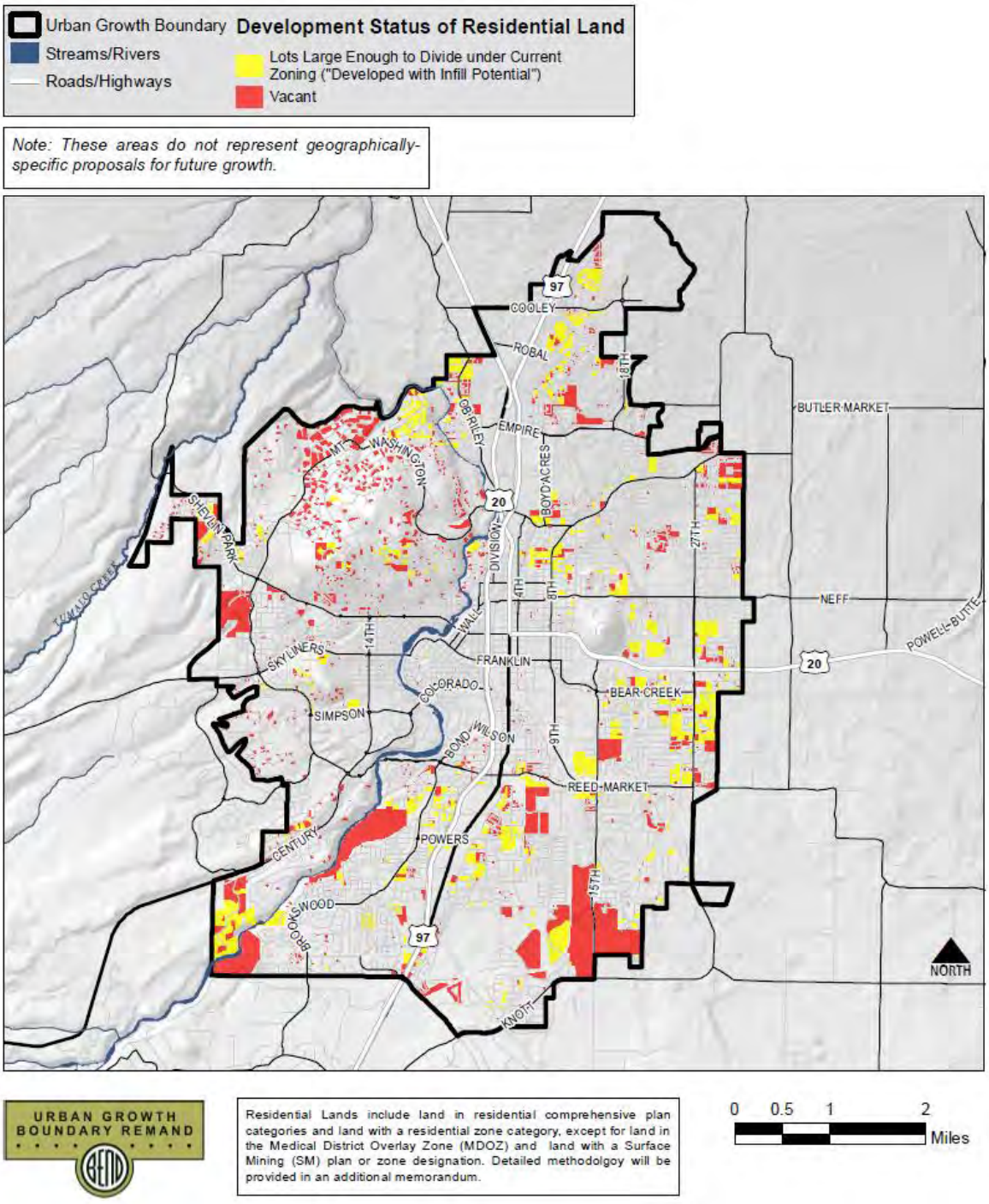
buffer area square footages for the same number of units (1 unit: 5000sf, 2 units: 5500 sf, 3-4 units: 6650 sf). For the two lots with >4 units and no building footprint info, used aerial photo and/or comparable adjacent lot to approximately measure area around existing buildings.

3. Calculate Vacant and Developed Area
    a. Where either acres available under zoning or acres remaining after subtracting building footprints & buffers are less than a half-acre, code the unconstrained portion of the lot as developed.
    b. Where both acres available under zoning and acres remaining after subtracting building footprints & buffers are more than a half-acre, code the greater of the two as the developed acres, with the remainder coded as vacant.

Plan Designation and Development Status	Vacant Acres	Developed Acres
Publicly Owned	0.0	84.8
Vacant	1325.9	0.0
URA	**0.1**	**51.9**
Developed	0.0	19.3
Publicly Owned	0.0	32.5
Vacant	0.1	0.0
Total	**2607.9**	**9356.7**

As Table 6 shows, there were no tax lots identified as “Lots Large Enough for Additional Units under Current Zoning (Partially Vacant)” that received any vacant acreage. This is because there were no tax lots with this designation that passed the screen detailed in footnote 15. Furthermore, there were no tax lots with this designation greater than ½ acre in total, as shown in the chart in Figure 2.

Figure 6. **Residential BLI Status – Taxlots with Vacant Acreage**



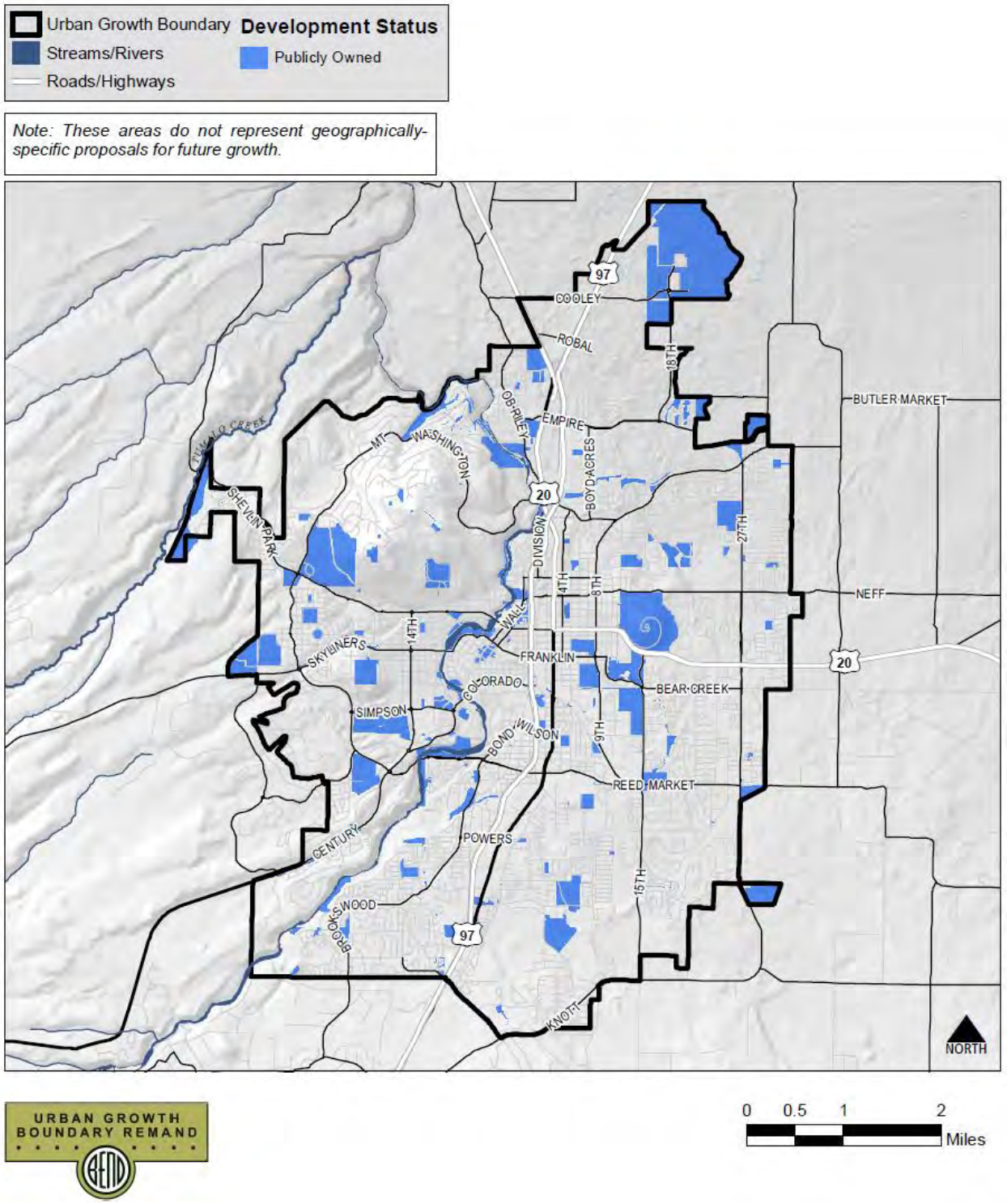
Developable Acreage: Publicly Owned Land

Publically owned lands were classified as developed because they are generally unavailable for residential development or redevelopment. If the public owner has indicated to the City that the land is available for development, it has been classified that way, such as the property owned by the Central Oregon Irrigation District in SW Bend. Juniper Ridge, which is also owned by the City of Bend, is considered available for employment uses as well.

Table 6. Developed and Vacant Acres on Publicly Owned Land

Plan Category	Vacant Acres	Developed Acres
CB	0.0	3.1
CG	10.9	13.0
CL	2.2	11.4
IG	0.0	2.8
IL	455.7	26.5
ME	7.5	26.9
MR	0.0	6.9
PF	189.3	489.8
RH	1.1	23.7
RL	0.0	3.8
RM	0.0	43.4
RS	0.0	178.4
URA	0.0	95.9
Grand Total	**666.9**	**925.6**

Figure 7. **Publicly Owned Land**



Developable Acreage: Employment Land

Based on the State's definitions, the extent of physical development was estimated based on aerial photography for parcels over five acres with some improvements. This information was used to classify land into a BLI category, but it was also used to identify vacant and developed portions of those parcels, so that a large parcel with some development but significant vacant acreage is identified as having both vacant and developed acres, to more accurately reflect its (re)development potential. This is consistent with OAR 660-009-0005, because this area represents land that is "likely to be redeveloped during the planning period".

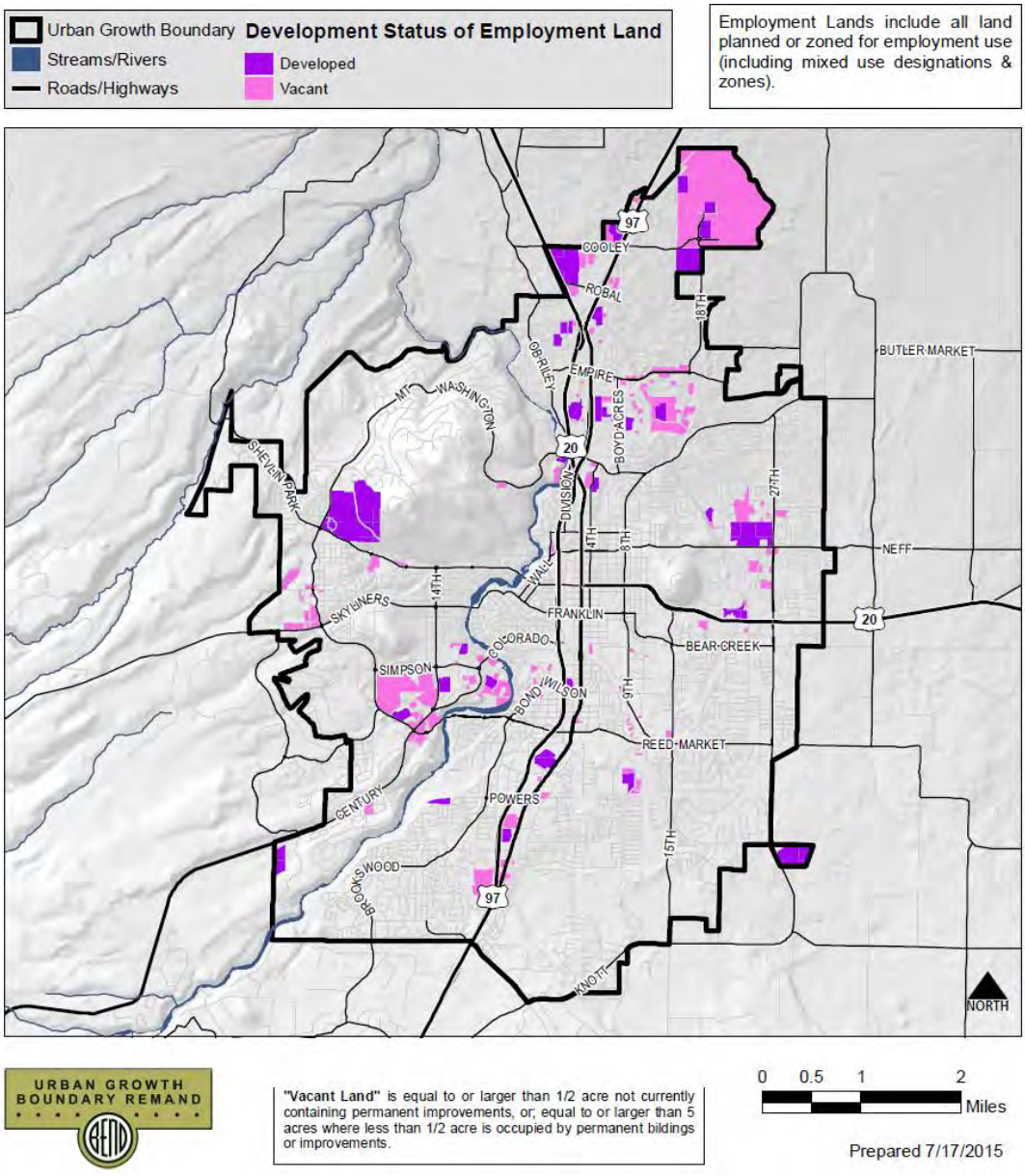
Table 7. Developed and Vacant Acres on Employment Land

Plan Category and Employment BLI Status	Vacant Acres	Developed Acres
CB	**0.0**	**38.5**
Developed	0.0	38.5
Vacant	**0.0**	**0.0**
CC	**11.6**	**65.8**
Developed	0.0	68.0
Vacant	11.6	0.0
CG	**117.1**	**611.2**
Developed	22.0	600.3
Vacant	95.1	10.9
CL	**86.6**	**300.0**
Developed	21.4	300.0
Vacant	65.2	0.0
IG	**7.8**	**182.4**
Developed	0.0	182.4
Vacant	7.8	0.0
IL	**642.6**	**599.0**
Developed	45.9	599.0
Vacant	596.7	0.0
MDOZ*	**72.6**	**177.3**
Developed	17.5	177.3
Vacant	55.1	0.0
ME	**95.8**	**200.3**
Developed	57.9	200.3
Vacant	37.9	0.0
MR	**35.8**	**161.6**
Developed	0.6	161.6
Vacant	35.2	0.0
PF	**190.0**	**155.9**
Developed	113.4	155.9
Vacant	76.7	0.0
PO	**6.0**	**0.0**

Plan Category and Employment BLI Status	Vacant Acres	Developed Acres
Developed	0.0	0.0
Vacant	6.0	0.0
PO/RM/RS	**0.0**	**5.8**
Developed	0.0	5.8
Vacant	00	0.0
RS**	**5.1**	**0.0**
Developed	0.0	0.0
Vacant	5.1	0.0
SM	**18.8**	**0.0**
Developed	0.0	0.0
Vacant	18.8	0.0
Grand Total	**1289.8**	**2497.8**

** Land within the Medical District Overlay Zone (MDOZ) is primarily within residential plan designations, but the overlay encourages development of medical and office uses. It is treated separately within the BLI where possible.*

*** Site has zoning of Surface Mining (SM) and is included in employment inventory.*



CONCLUSION

The primary outcome of the Buildable Lands Inventory is a GIS dataset with values for vacant and developed acres for each parcel within the City of Bend UGB. These values provide a basis for estimating future development and redevelopment. The assumptions that have been applied to this inventory to estimate capacity are documented in the Urbanization Report, which estimates the potential for growth of housing and jobs within the current UGB based on existing conditions, as well as alternate growth scenarios involving changes to the Comprehensive Plan map and development code.

APPENDIX A – GLOSSARY

Plan Designations

Plan designations are spelled out below. For additional information, see the Bend Comprehensive Plan.

Residential Designations:

RL: Residential Low Density

RS: Residential Standard Density

RM: Residential Medium Density

RH: Residential High Density

SR2.5: Suburban Low Density Zone

Employment/Mixed Use Designations:

CB: Central Business District

CC: Community Commercial

CG: General Commercial

CL: Commercial Limited

MR: Mixed Riverfront.

ME: Mixed Employment

PO: Professional Office

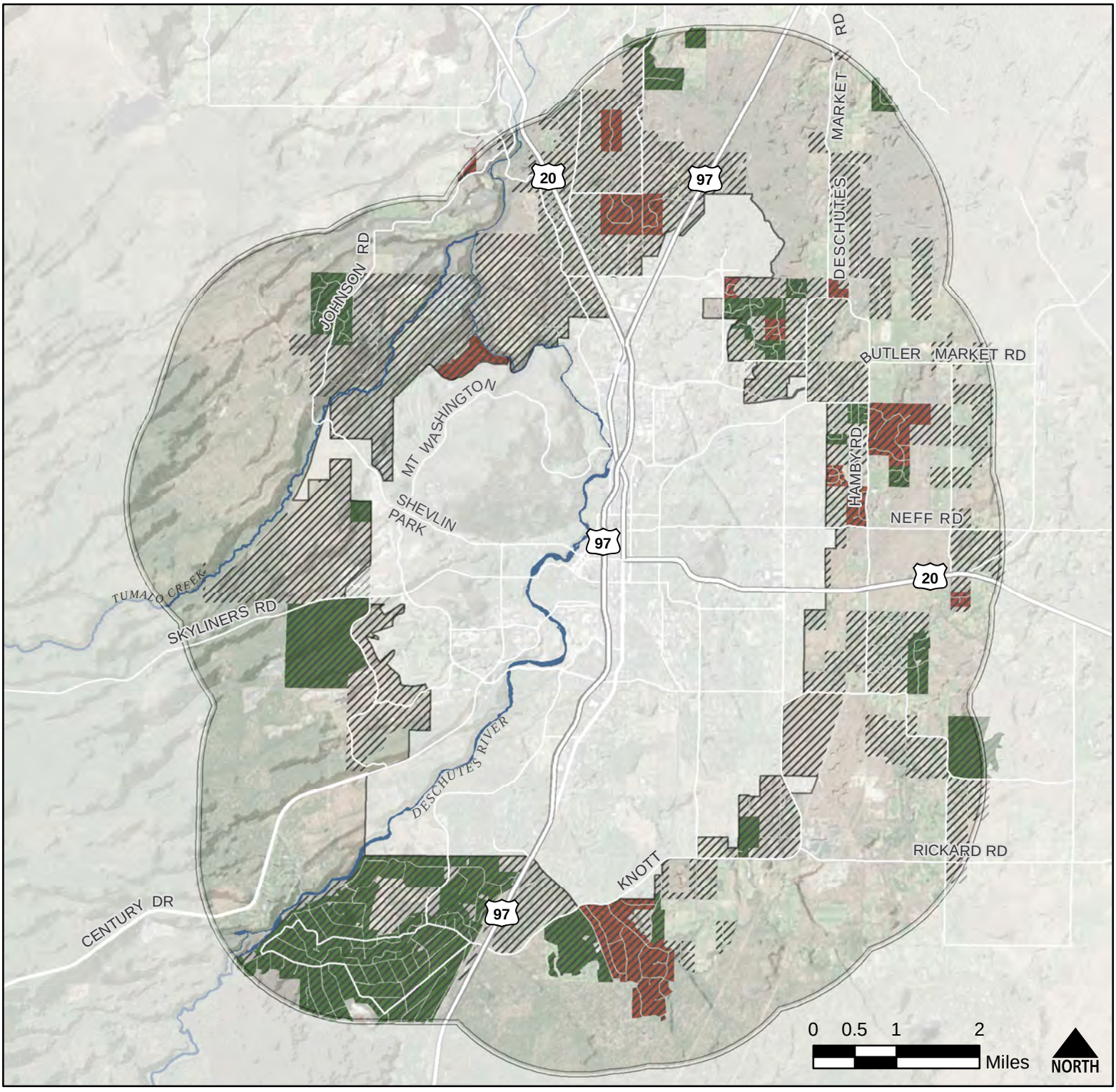
SM: Surface Mining

IL: Industrial Limited

IG: Industrial General

PF: Public Facilities

Subdivisions with Known CC&Rs



URBAN GROWTH BOUNDARY REMAND

Note: analysis of known CC&Rs is a work in progress and subject to change.

Service Layer Credits: Remand Record (entered 12/01/2008); Deschutes County GIS (2014)

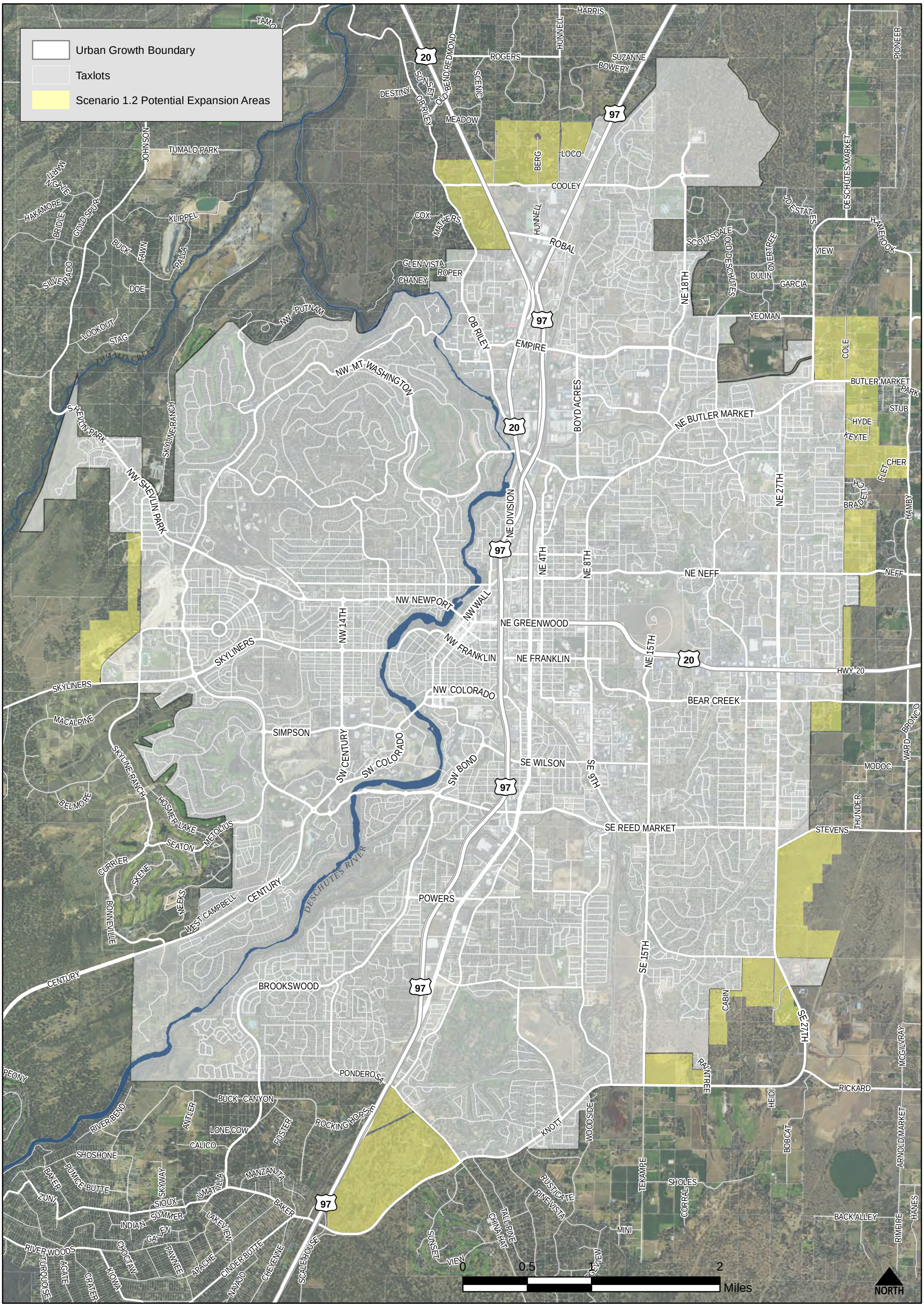
Prepared 2/19/2015

06610

Bend UGB

Potential UGB Expansion Areas - Scenario 1.2

Prepared 9/25/2015



URBAN GROWTH BOUNDARY REMAND

Disclaimer: This map represents land use assumptions for modeling purposes only. The scenarios were created on a grid of rectangular cells, so the edges of the boundary will need further refinement to line up with topographic features and parcel lines.

Service Layer Credits: Deschutes County GIS (2014)

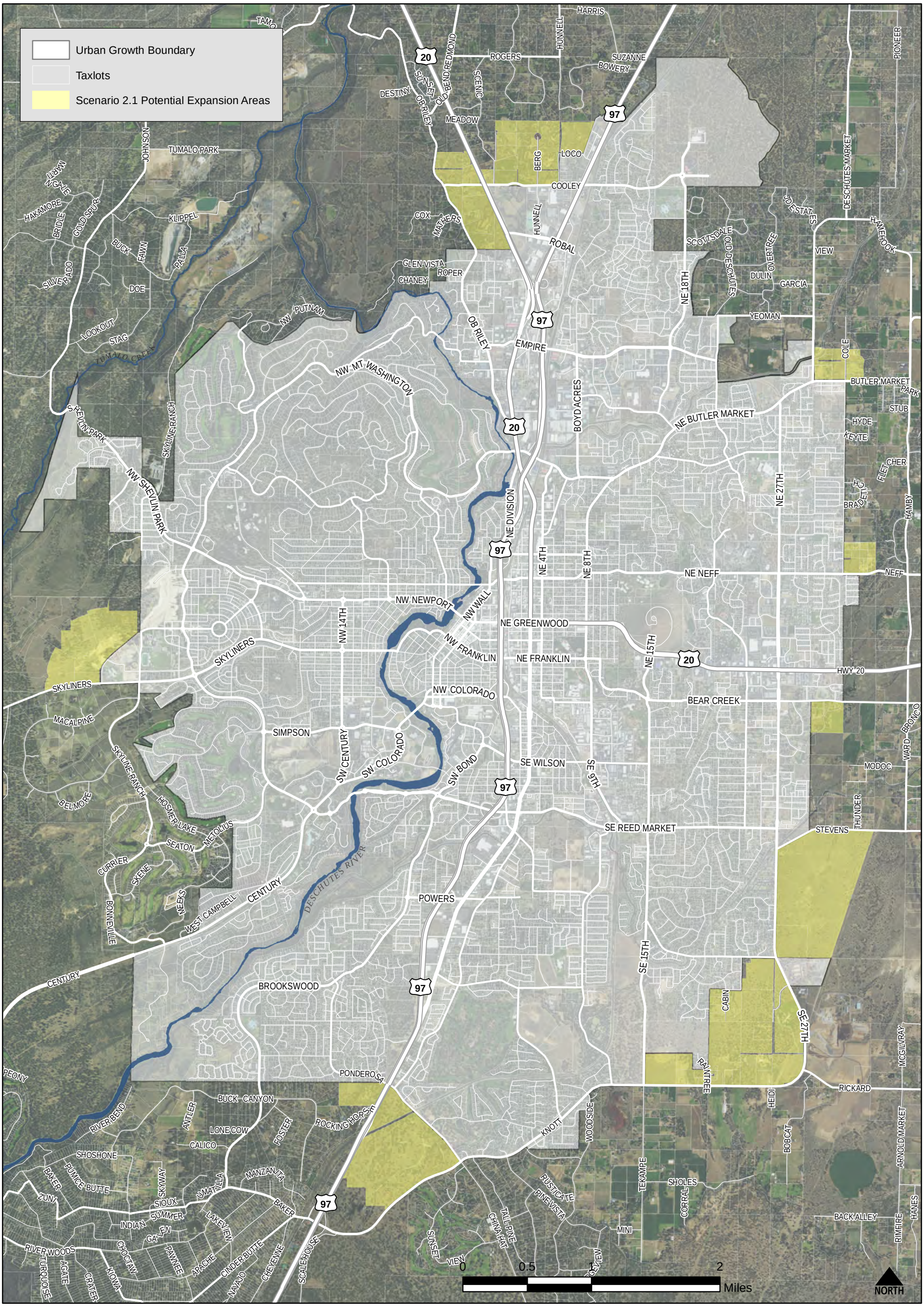
Streams/Rivers
Roads/Highways
Urban Growth Boundary

06611

Bend UGB

Potential UGB Expansion Areas - Scenario 2.1

Prepared 9/25/2015



URBAN GROWTH BOUNDARY REMAND

Disclaimer: This map represents land use assumptions for modeling purposes only. The scenarios were created on a grid of rectangular cells, so the edges of the boundary will need further refinement to line up with topographic features and parcel lines.

Service Layer Credits: Deschutes County GIS (2014)

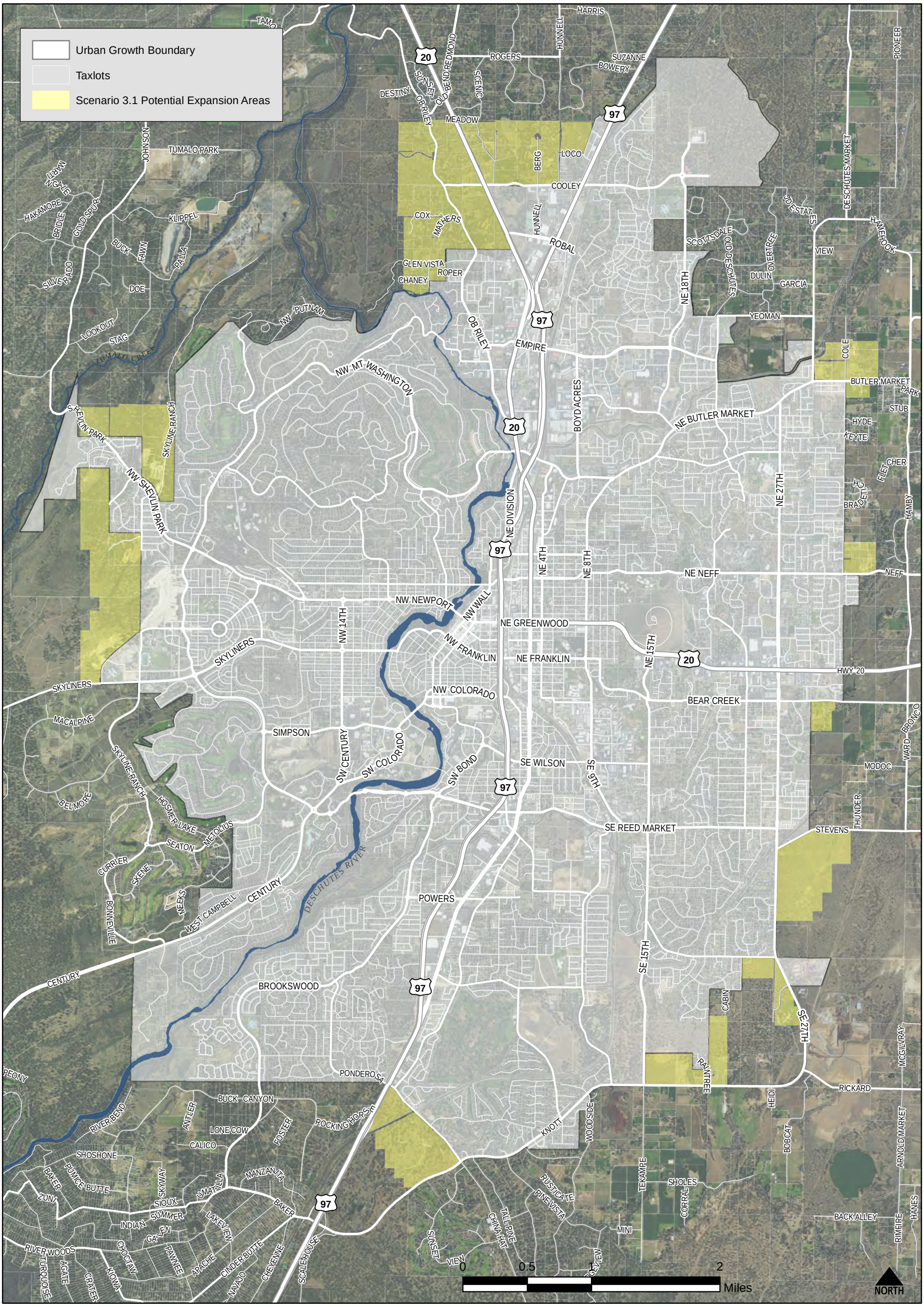
Streams/Rivers
Roads/Highways
Urban Growth Boundary

06612

Bend UGB

Potential UGB Expansion Areas - Scenario 3.1

Prepared 9/25/2015



URBAN GROWTH BOUNDARY REMAND

Disclaimer: This map represents land use assumptions for modeling purposes only. The scenarios were created on a grid of rectangular cells, so the edges of the boundary will need further refinement to line up with topographic features and parcel lines.

Service Layer Credits: Deschutes County GIS (2014)

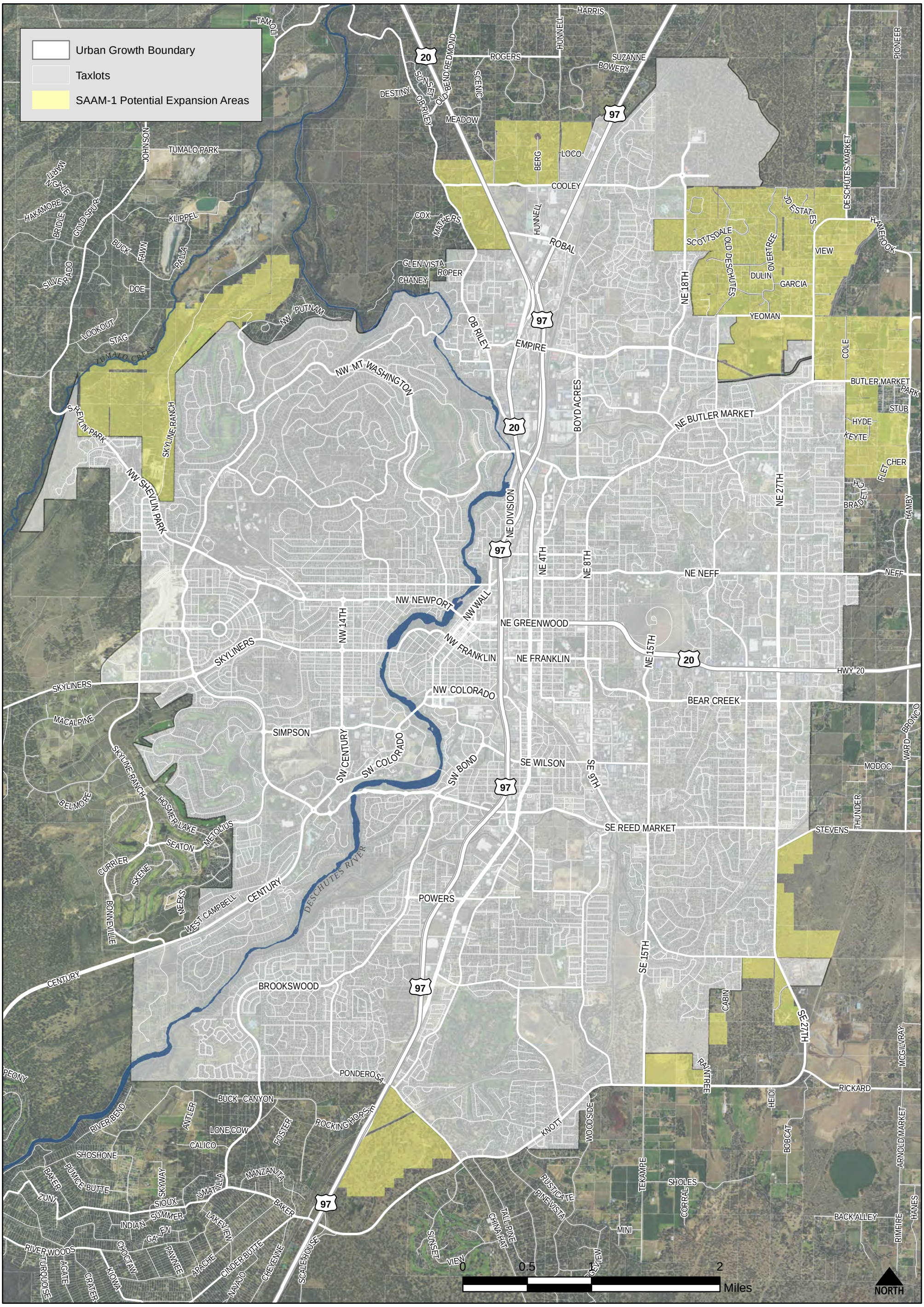
Streams/Rivers
Roads/Highways
Urban Growth Boundary

06613

Bend UGB

Potential UGB Expansion Areas - SAAM-1

Prepared 9/25/2015



URBAN GROWTH BOUNDARY REMAND

Disclaimer: This map represents land use assumptions for modeling purposes only. The scenarios were created on a grid of rectangular cells, so the edges of the boundary will need further refinement to line up with topographic features and parcel lines.

Service Layer Credits: Deschutes County GIS (2014)

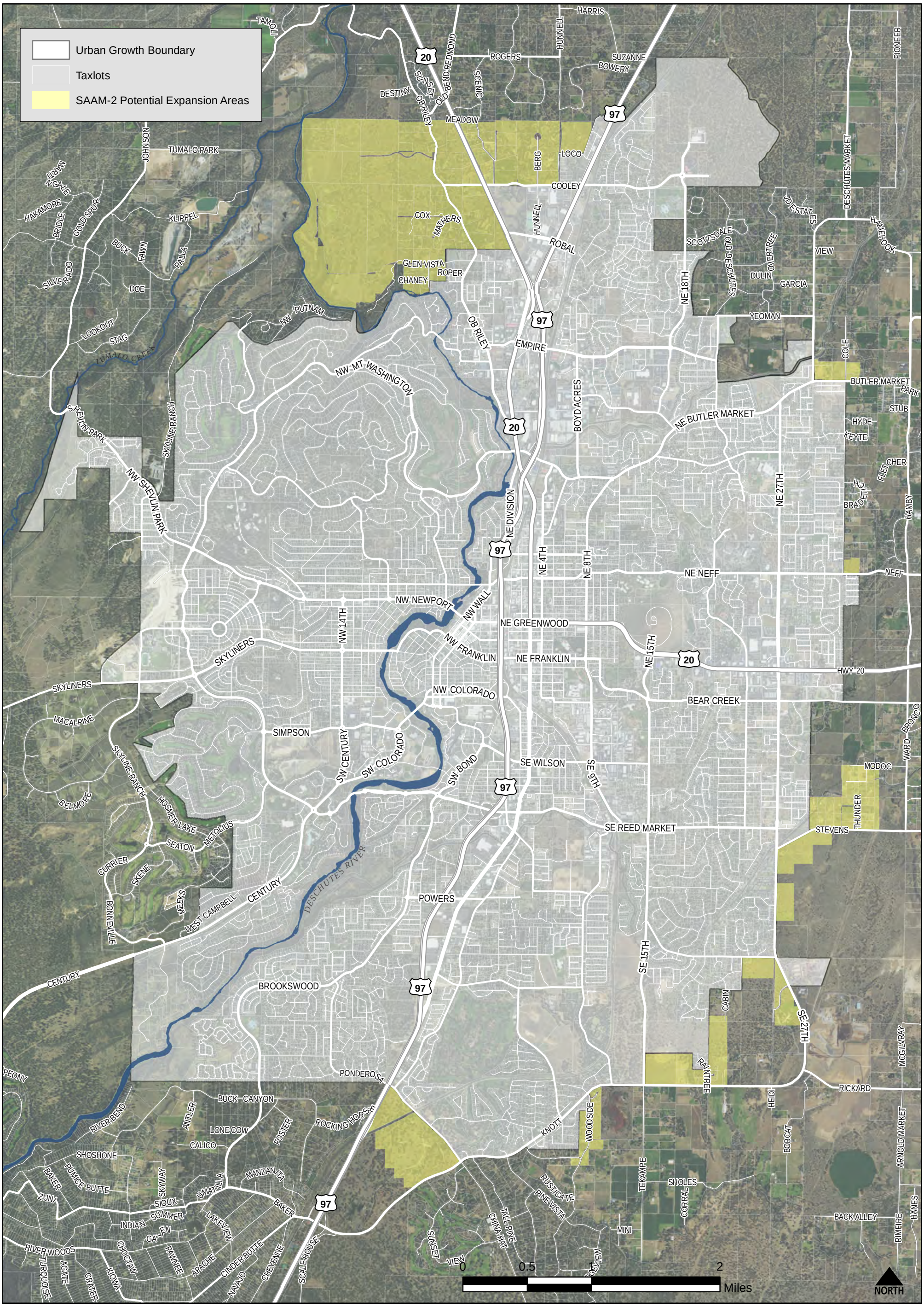
Streams/Rivers
Roads/Highways
Urban Growth Boundary

06614

Bend UGB

Potential UGB Expansion Areas - SAAM-2

Prepared 9/25/2015



URBAN GROWTH BOUNDARY REMAND

Disclaimer: This map represents land use assumptions for modeling purposes only. The scenarios were created on a grid of rectangular cells, so the edges of the boundary will need further refinement to line up with topographic features and parcel lines.

Service Layer Credits: Deschutes County GIS (2014)

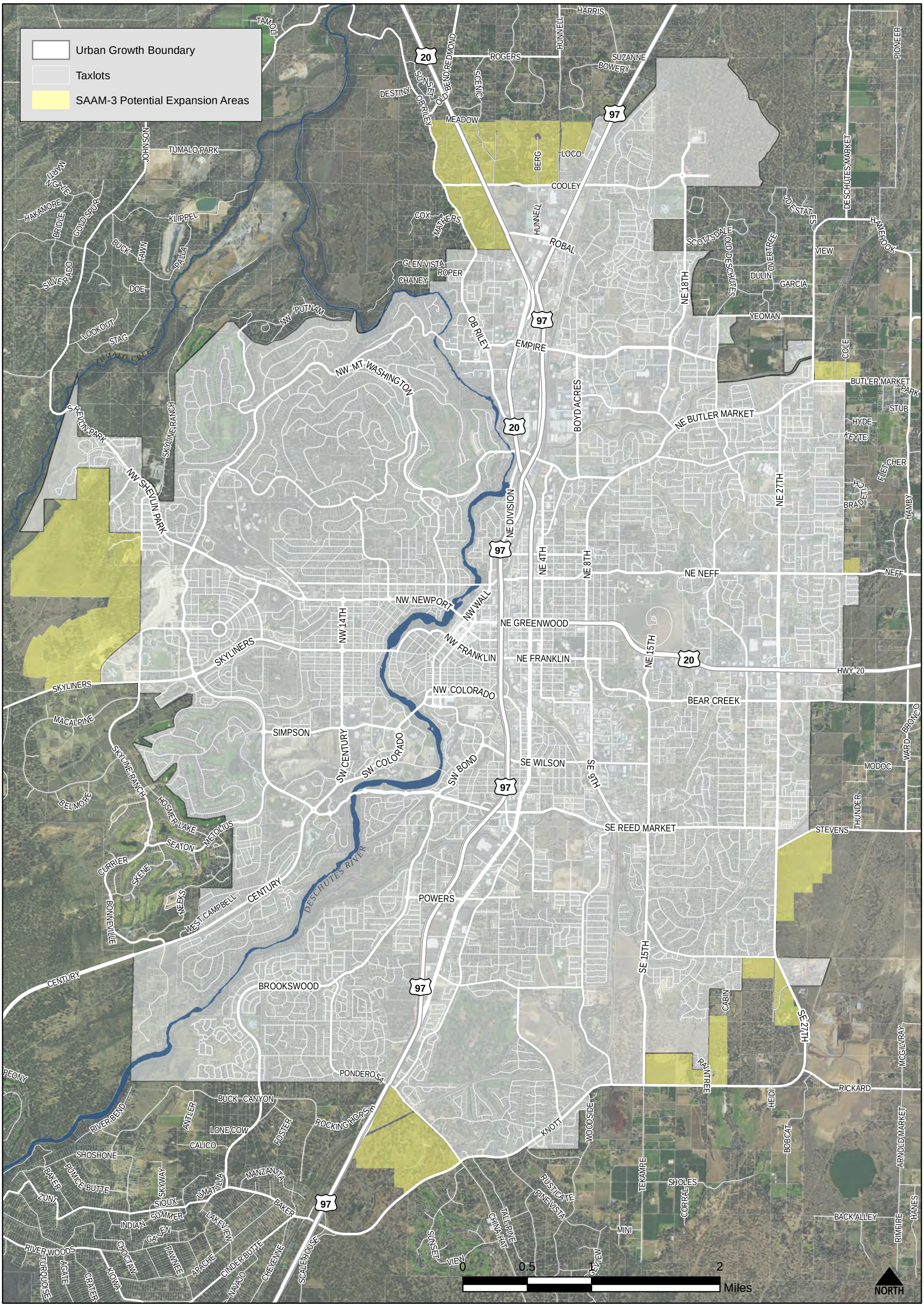
Streams/Rivers
Roads/Highways
Urban Growth Boundary

06615

Bend UGB

Potential UGB Expansion Areas - SAAM-3

Prepared 9/25/2015



URBAN GROWTH BOUNDARY REMAND

Disclaimer: This map represents land use assumptions for modeling purposes only. The scenarios were created on a grid of rectangular cells, so the edges of the boundary will need further refinement to line up with topographic features and parcel lines.

Service Layer Credits: Deschutes County GIS (2014)

Streams/Rivers
Roads/Highways
Urban Growth Boundary

06616

Development Types		Residential Land Area			Employment Land Area					
		Multifamily	Townhome	Single Family	Retail	Office	Industrial	Public/Civic	Education	Hotel
RL	Low Density Residential	0%	2%	98%	0%	0%	0%	0%	0%	0%
RS	Standard Density Residential	1%	6%	93%	0%	100%	0%	0%	0%	0%
RM	Medium Density Residential	65%	15%	21%	50%	50%	0%	0%	0%	0%
RH	High Density Resigential	84%	16%	0%	1%	76%	18%	5%	0%	0%
MDOZ	Medical District Overlay Zone	100%	0%	0%	0%	76%	18%	5%	0%	0%
CC	Community Commercial	0%	0%	0%	80%	5%	6%	1%	0%	8%
CL	Limited Commercial	98%	0%	2%	72%	7%	15%	1%	0%	5%
CG	General Commercial	100%	0%	0%	93%	1%	2%	0%	0%	4%
CB	Central Business District	0%	0%	0%	13%	54%	0%	17%	0%	17%
IL	Light Industrial	0%	0%	0%	7%	7%	84%	3%	0%	0%
IG	General Industrial	0%	0%	0%	2%	7%	90%	1%	0%	0%
MR	Mixed Riverfront	76%	0%	24%	77%	14%	5%	1%	0%	4%
ME	Mixed Employment	0%	0%	0%	44%	4%	49%	1%	0%	1%

Development Types		Residential Land Area			Employment Land Area					
		Multifamily	Townhome	Single Family	Retail	Office	Industrial	Public/Civic	Education	Hotel
PF	Public Facilities	0%	0%	0%	4%	1%	0%	95%	0%	0%
RS-CCR	CCR-Restricted Residential	0%	0%	100%	0%	0%	0%	0%	0%	0%
MU 1	Neighborhood mixed Use	95%	5%	0%	49%	31%	0%	4%	0%	17%
MU 2a	Urban Mixed Use	97%	3%	0%	30%	42%	0%	3%	0%	25%
RS Hillside	Clustered RS	0%	4%	96%	0%	100%	0%	0%	0%	0%
Park	Park	0%	0%	0%	0%	0%	0%	0%	0%	0%
Institutional	Campus	0%	0%	0%	0%	0%	0%	0%	100%	0%
CC2	"Walkable" Community Commercial	0%	0%	0%	55%	14%	0%	1%	0%	30%
RS Master-plan	RS with Master Plan Requirements	0%	7%	93%	0%	100%	0%	0%	0%	0%
RM-BC	RM with Standard Parking	55%	18%	27%	50%	50%	0%	0%	0%	0%
RH-BC	RH with Standard Parking	85%	14%	1%	1%	76%	19%	4%	0%	0%