

APPENDIX 6-EMPLOYMENT LAND SITE CHARACTERISTICS

Background

Under Division 24 (Urban Growth Boundaries) of the Oregon Administrative Rules, Metro is required to complete an employment land inventory that describes site characteristics of buildable lands inside the urban growth boundary (as described in Division 9, Economic Development). Cities and counties, in the course of their own planning efforts, are responsible for determining whether sites are suitable for particular uses that match their economic development objectives. This is an appropriate approach given the regional scale of this inventory and the desire to not replicate or supplant local efforts.

The approach used for this analysis is also informed by Division 9 (Economic Development) of the Oregon Administrative Rules, that states “The effort necessary to comply... will vary depending on the size of the jurisdiction...” and that “a jurisdiction’s planning effort is adequate if it uses the best available or readily collectible information...” This clause acknowledges that a detailed region-wide analysis of employment sites is not feasible either to complete or interpret in any meaningful fashion.

This analysis uses a general approach that was developed in consultation with Oregon Department of Land Conservation and Development staff for the 2014 Urban Growth Report. Table 1 summarizes the site characteristics mentioned in the Administrative Rules and the various data points that have been used to summarize these characteristics. For practical reasons, this report presents regional maps and summary tables. Map 1 depicts the subareas used to organize this analysis. Metro can provide its tax lot level buildable land inventory GIS database on request. Employment land is organized into three categories for this analysis:

- Commercial land
- General industrial land
- Large industrial sites (maps depict dots for each tax lot that comprises a large site; some sites may consist of multiple tax lots)

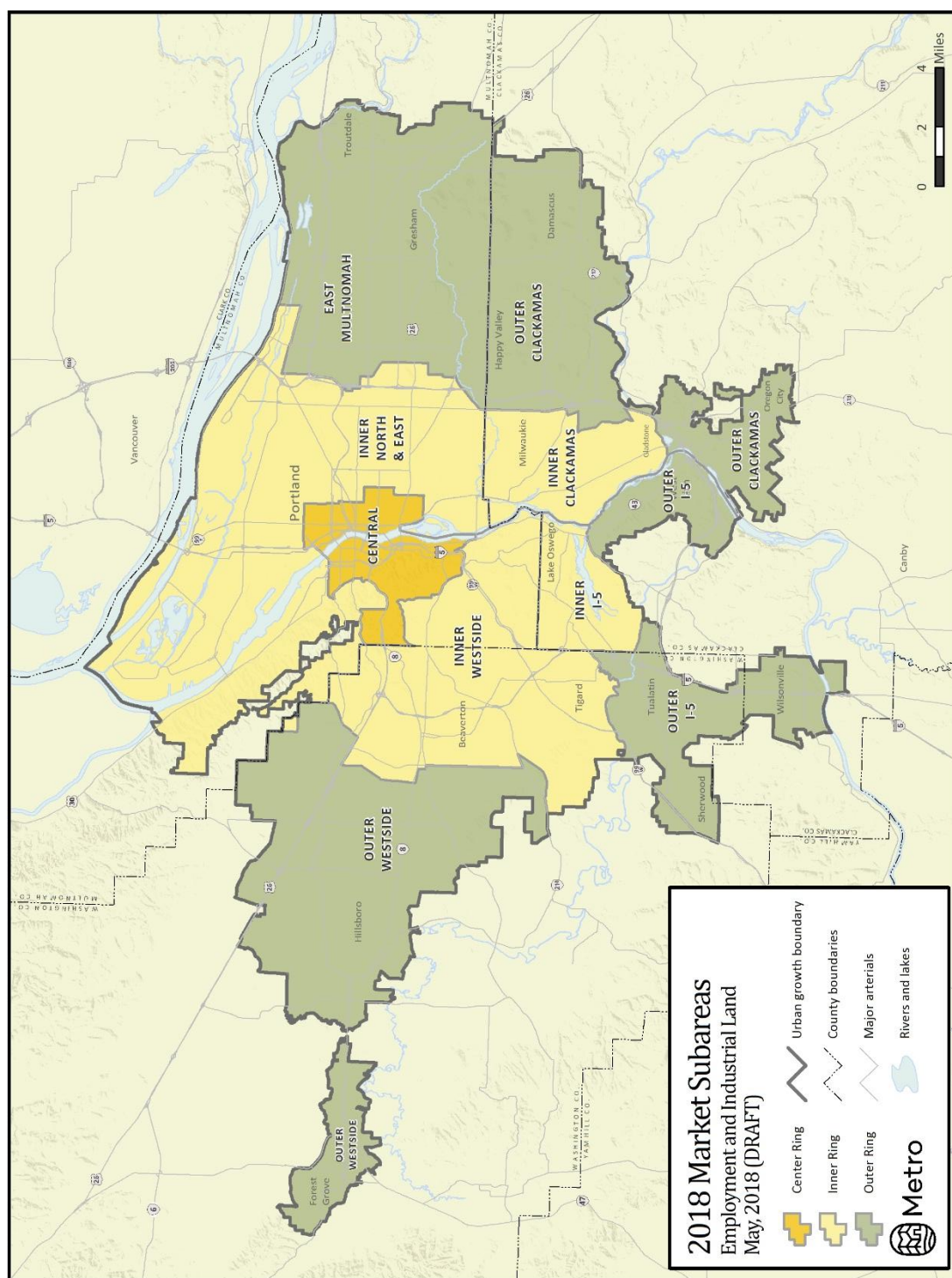
Additional information about large industrial sites (over 25-net buildable acres) can be found in Appendix 8.

Table 1: summary of approach for describing site characteristics

OR Administrative Rules Division 9 – Economic Development	Metro employment land inventory approach
Description of minimum acreage or site configuration characteristics including shape and topography	<p>Acreage – summary tables of net buildable acreages are provided. Metro can provide its tax-lot-level buildable land inventory GIS database on request.</p> <p>Shape - site shapes cannot be summarized in any meaningful fashion at the regional scale, but the GIS database includes a visual depiction of the shape of each tax lot in the inventory. Metro can provide its tax-lot-level buildable land inventory GIS database on request.</p> <p>Topography - portions of tax lots with slopes over 25% have been removed from the inventory since they are deemed unbuildable. This report describes, as a site characteristic, the portion of each inventoried tax lot that has a slope between 7-25%. This range was chosen because slopes over 7% are often regarded as an impediment to industrial uses with larger development footprints.</p>
Visibility	This characteristic is taken to mean visibility from a public right of way. For each tax lot in the inventory, distance to the nearest major arterial is computed.
Specific types of public facilities, services or energy infrastructure	<p>Region-wide data to address this site characteristic are not readily available. For public security reasons, Metro does not have access to data on where power and gas transmission lines are. Metro also do not have access to data on where water and sewer facilities are located. The inventory depicts the following:</p> <ul style="list-style-type: none"> -Sewer district name -Water district name -Fire district name -Distance to closest major arterial
Proximity to a particular transportation or freight facility such as rail, marine ports and airports, multimodal freight or transshipment facilities, and major transportation routes.	<ul style="list-style-type: none"> -Distance to nearest rail terminal -Distance to transshipment facilities -Distance to major arterial -Distance to designated freight route -Distance to airport -Distance to marine terminals
Description of any development constraints or infrastructure needs that affect the buildable area of sites in the inventory	<ul style="list-style-type: none"> -Number of environmentally constrained acres (note – these acres are removed from buildable land inventory). -Inside or outside marine use restriction area -Inside or outside an aviation overlay zone -Portion of each tax lot that has a slope between 7-25% -Owner flagged for tax exempt status (removed from inventory if

OR Administrative Rules Division 9 – Economic Development	Metro employment land inventory approach
	<p>not available for employment use)</p> <ul style="list-style-type: none">-Land value per square foot (county assessor data)-Vacant or redevelopment land category (Metro)-Inside city (yes/no)-Estimate of future streets and sidewalks acreage needs for vacant tax lots. However, we should note that our method uses a regional approach and may not reflect the actual needs of specific sites.

Map 1: Subareas used for employment site characteristics summarization



2018 Vacant Buildable Land
Employment Land
May, 2018 (DRAFT)

Employment Acres (per taxlot)

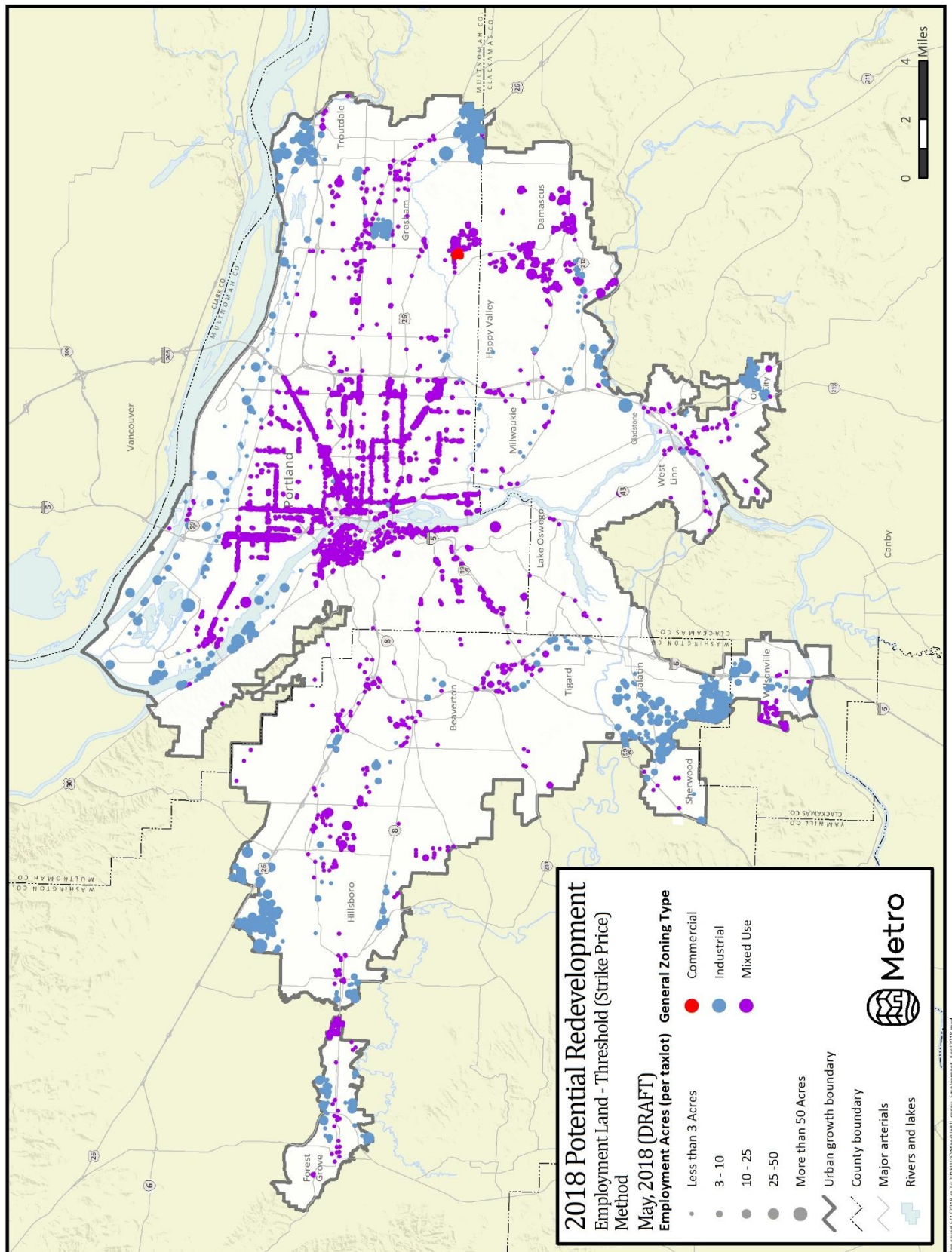
- Less than 3 Acres
- 3 - 10
- 10 - 25
- 25 - 50
- More than 50 Acres

General Zoning Type

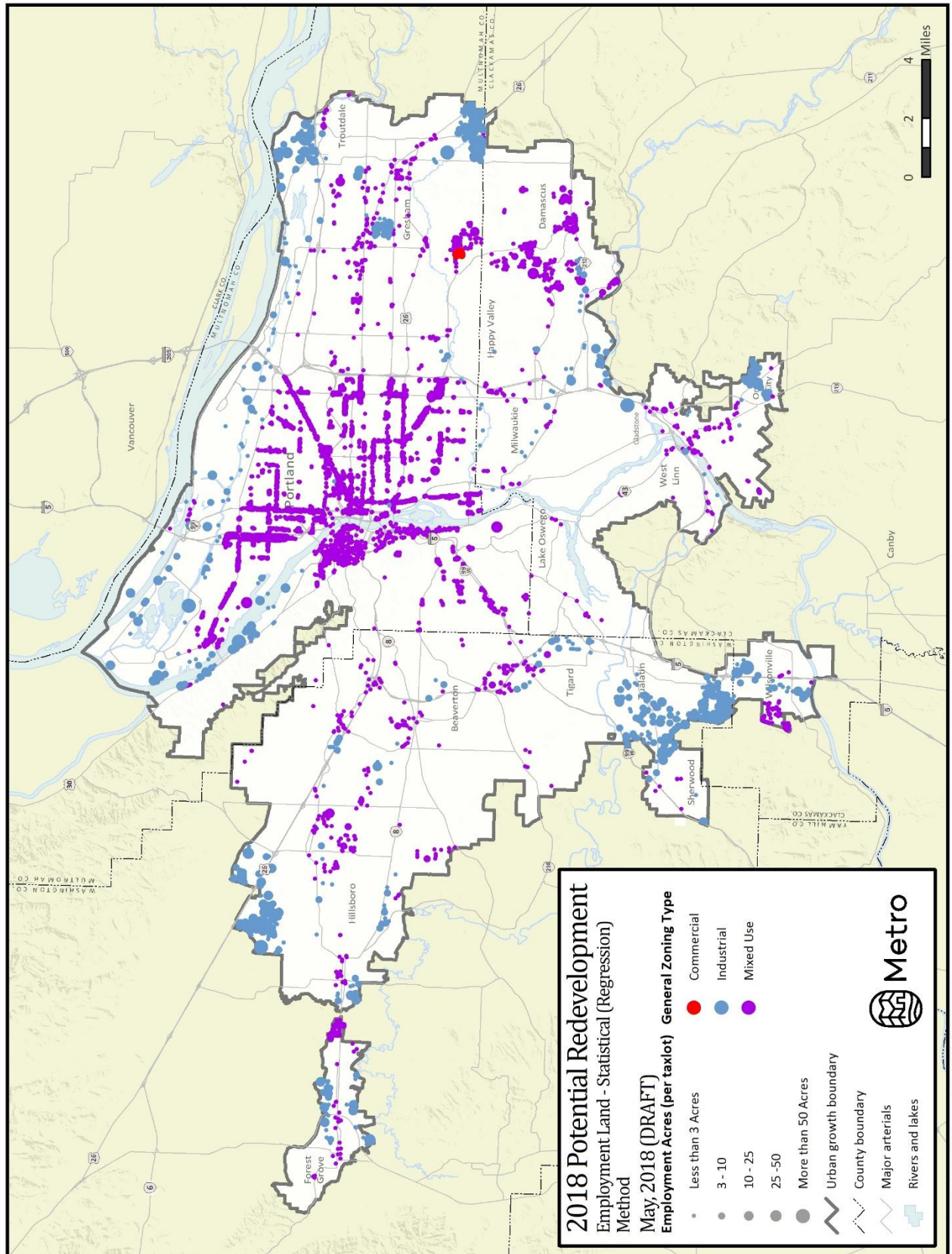
- Commercial
- Industrial
- Mixed Use

Urban growth boundary
 County boundary
 Major arterials
 Rivers and lakes

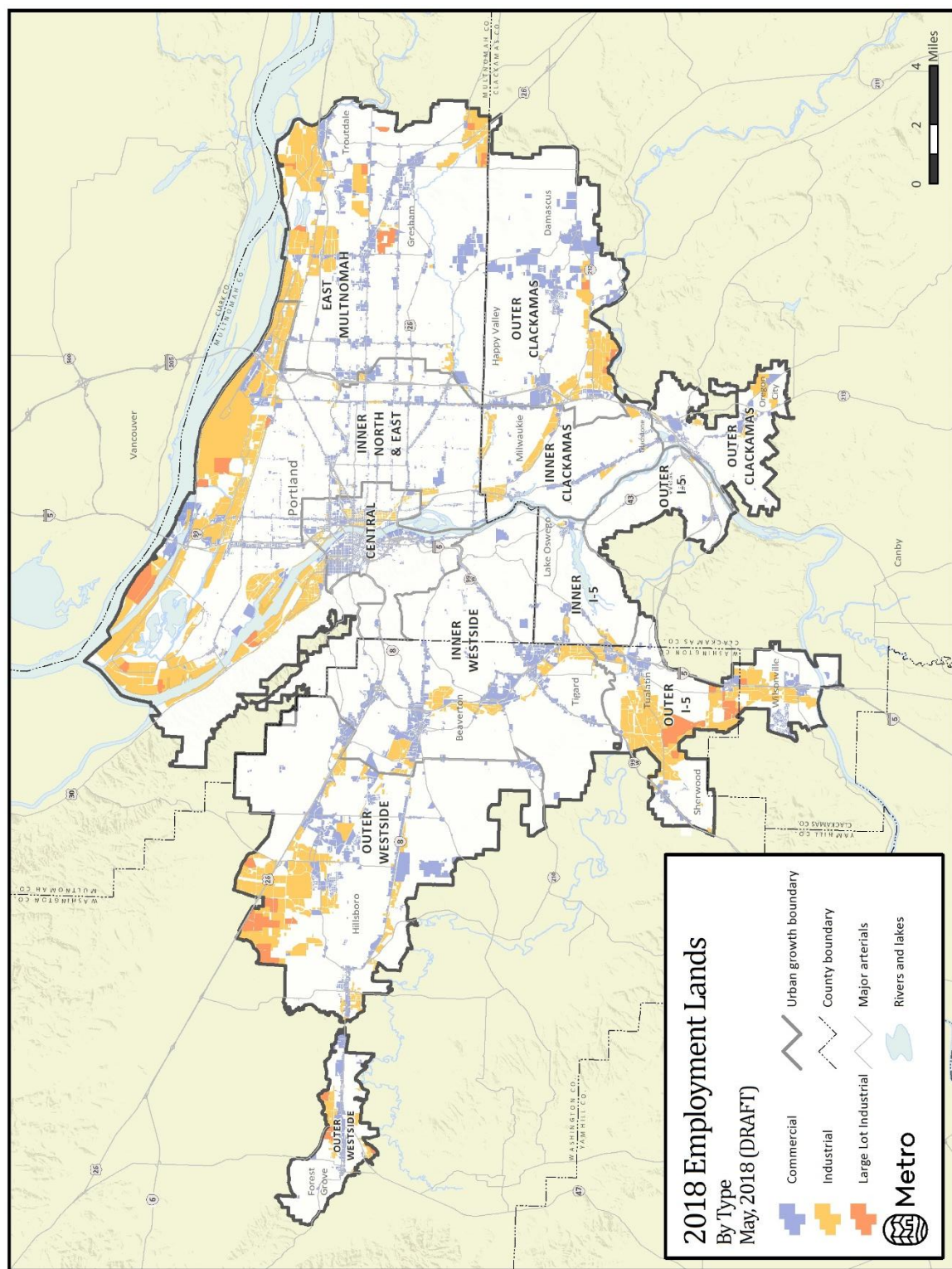
Metro



Map 4: Redevelopment candidate employment land – statistical (regression) method



Map 5: Employment lands by type



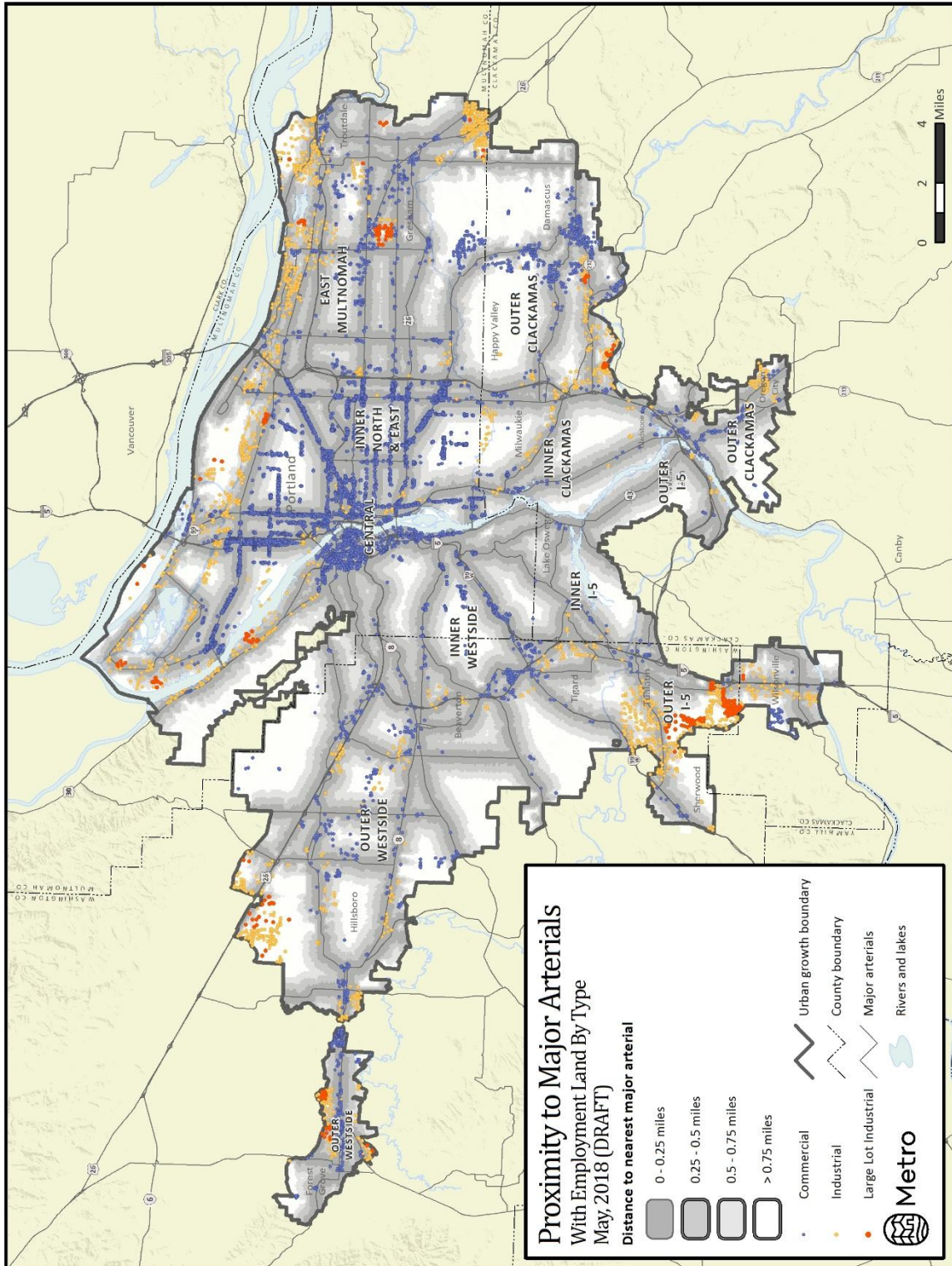
Description of minimum acreage or site configuration characteristics including shape and topography

Table 2: Summary data on acres of buildable employment land inside the Metro urban growth boundary

Market Subarea	Strike Price		Regression	
	Parcels	Acres	Parcels	Acres
Central	1,398	145.4	1,398	43.4
Commercial	1,369	139.6	1,369	37.5
Industrial	29	5.9	29	5.9
East Multnomah	981	2,647.9	981	2,509.5
Commercial	534	487.0	534	348.6
Industrial	406	1,709.3	406	1,709.3
Large Lot Industrial	41	451.6	41	451.6
Inner Clackamas	116	115.0	116	112.2
Commercial	66	17.9	66	15.1
Industrial	50	97.1	50	97.1
Inner I-5	27	8.2	27	7.3
Commercial	21	2.9	21	1.9
Industrial	6	5.3	6	5.3
Inner North & East	4,890	2,193.5	4,890	1,951.0
Commercial	4,360	412.6	4,360	170.1
Industrial	488	1,013.9	488	1,013.9
Large Lot Industrial	42	767.0	42	767.0
Inner Westside	476	221.9	476	188.5
Commercial	408	113.3	408	79.8
Industrial	68	108.7	68	108.7
Outer Clackamas	687	1,451.9	687	1,320.2
Commercial	481	709.7	481	578.0
Industrial	189	646.3	189	646.3
Large Lot Industrial	17	95.9	17	95.9
Outer I-5	495	1,818.6	495	1,812.8
Commercial	76	49.5	76	43.8
Industrial	323	1,320.3	323	1,320.3
Large Lot Industrial	96	448.8	96	448.8
Outer Westside	675	2,249.7	675	2,195.3
Commercial	340	287.3	340	232.9
Industrial	292	1,016.9	292	1,016.9
Large Lot Industrial	43	945.5	43	945.5
Grand Total	9,745	10,852.1	9,745	10,140.1

Site visibility

Map 6: Proximity to major arterials

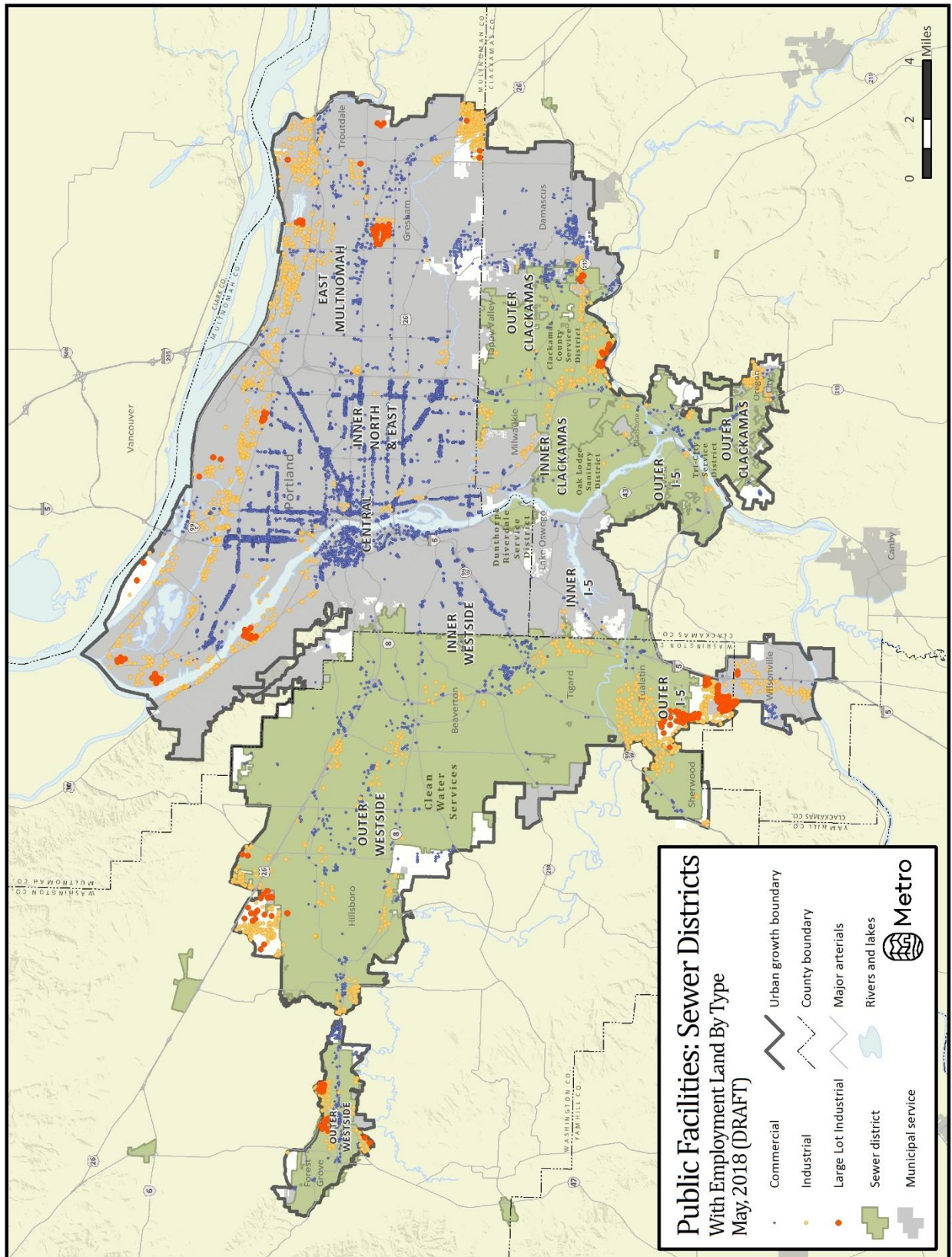


Specific types of public facilities, services or energy infrastructure

Public Facilities: Fire Districts With Employment Land By Type
May, 2018 (DRAFT)

- Commercial
- Industrial
- Large Lot Industrial
- Fire district
- Municipal service
- Urban growth boundary
- County boundary
- Major arterials
- Rivers and lakes
- Metro

Map 8: Sewer districts

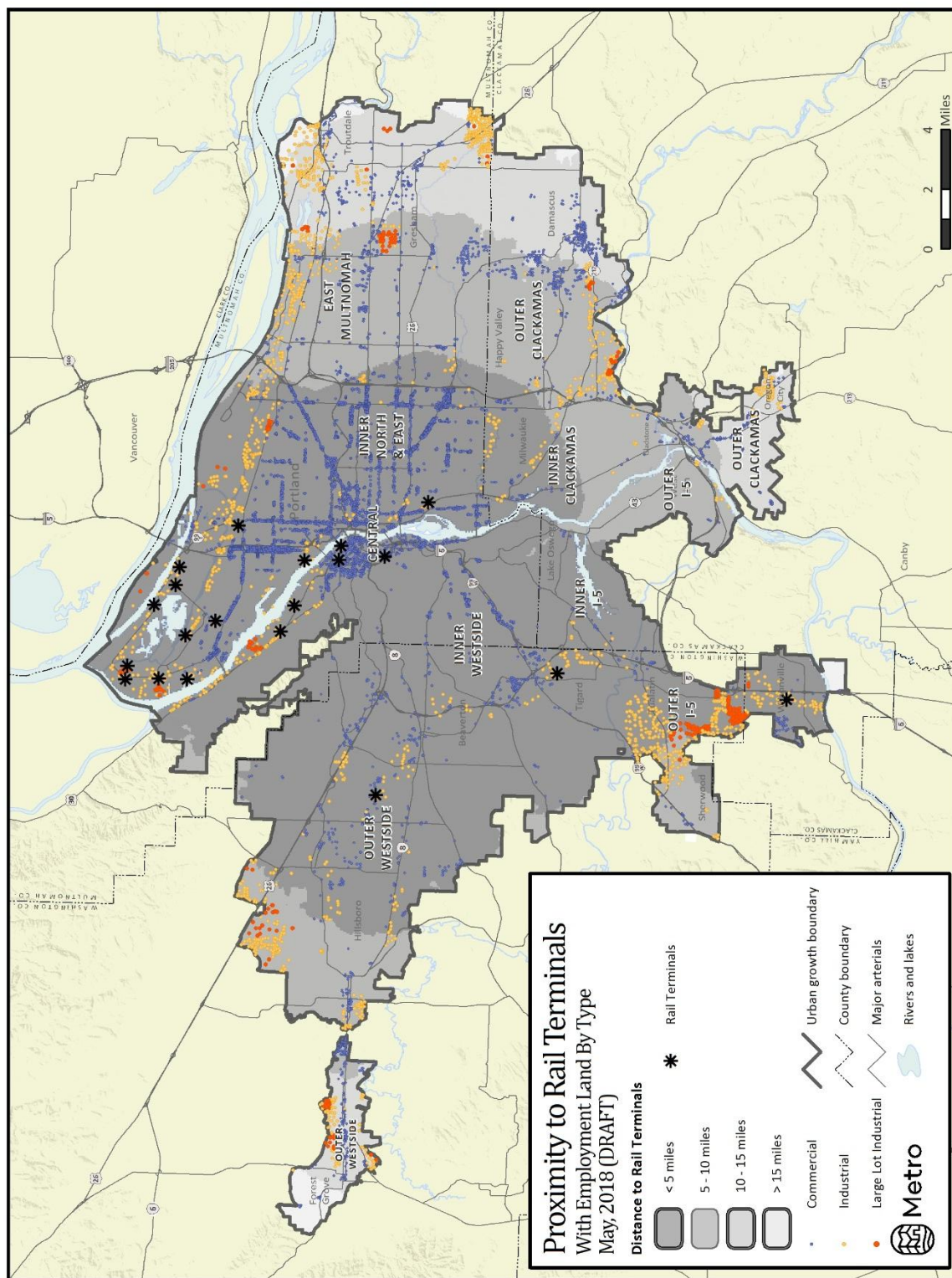


Public Facilities: Water Districts
With Employment Land By Type
May, 2018 (DRAFT)

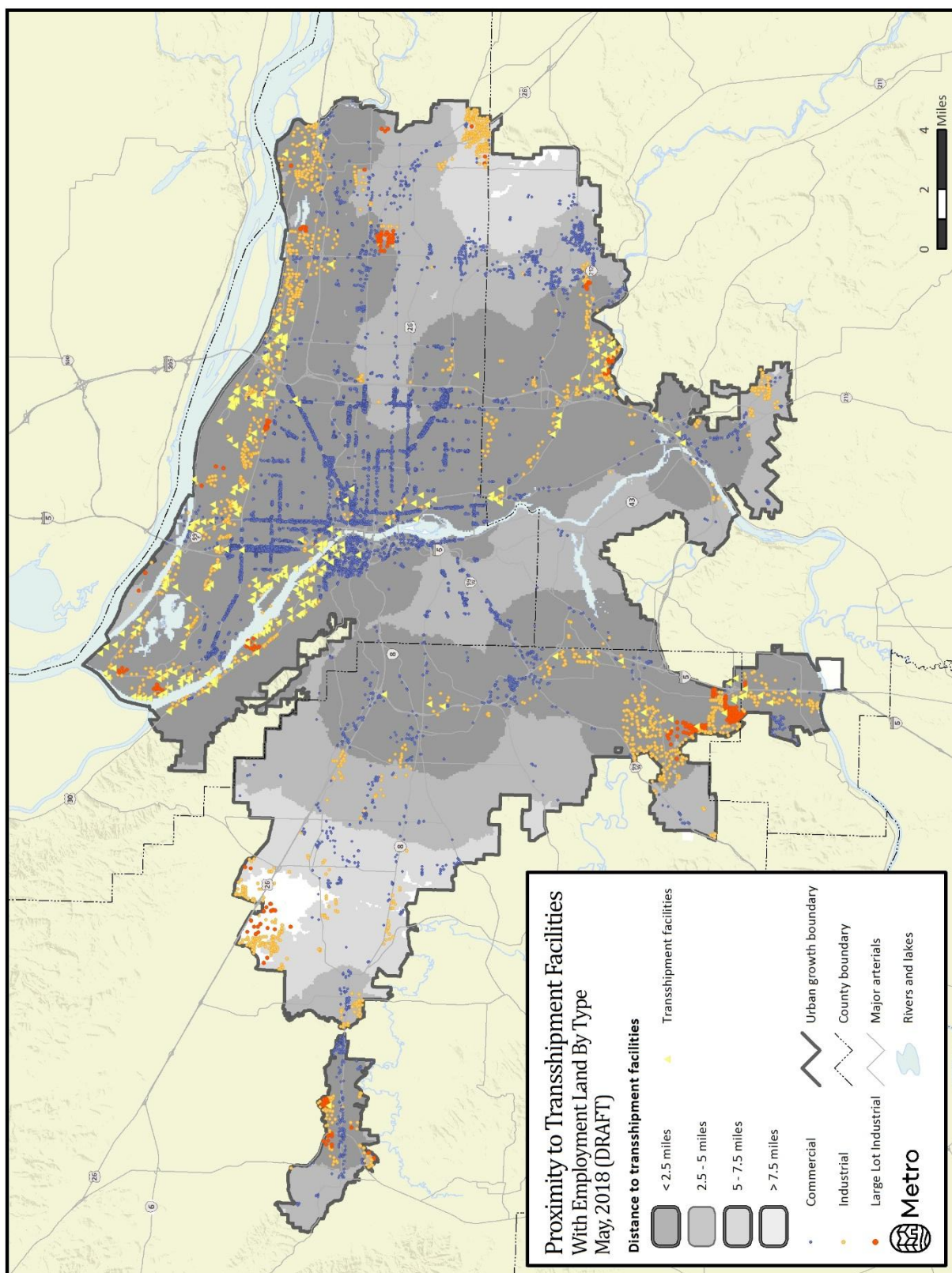
- Commercial
- Industrial
- Large Lot Industrial
- Water district
- Municipal service
- Urban growth boundary
- County boundary
- Major arterials
- Rivers and lakes
- Metro

Proximity to a particular transportation or freight facility such as rail, marine ports and airports, multimodal freight or transshipment facilities, and major transportation routes

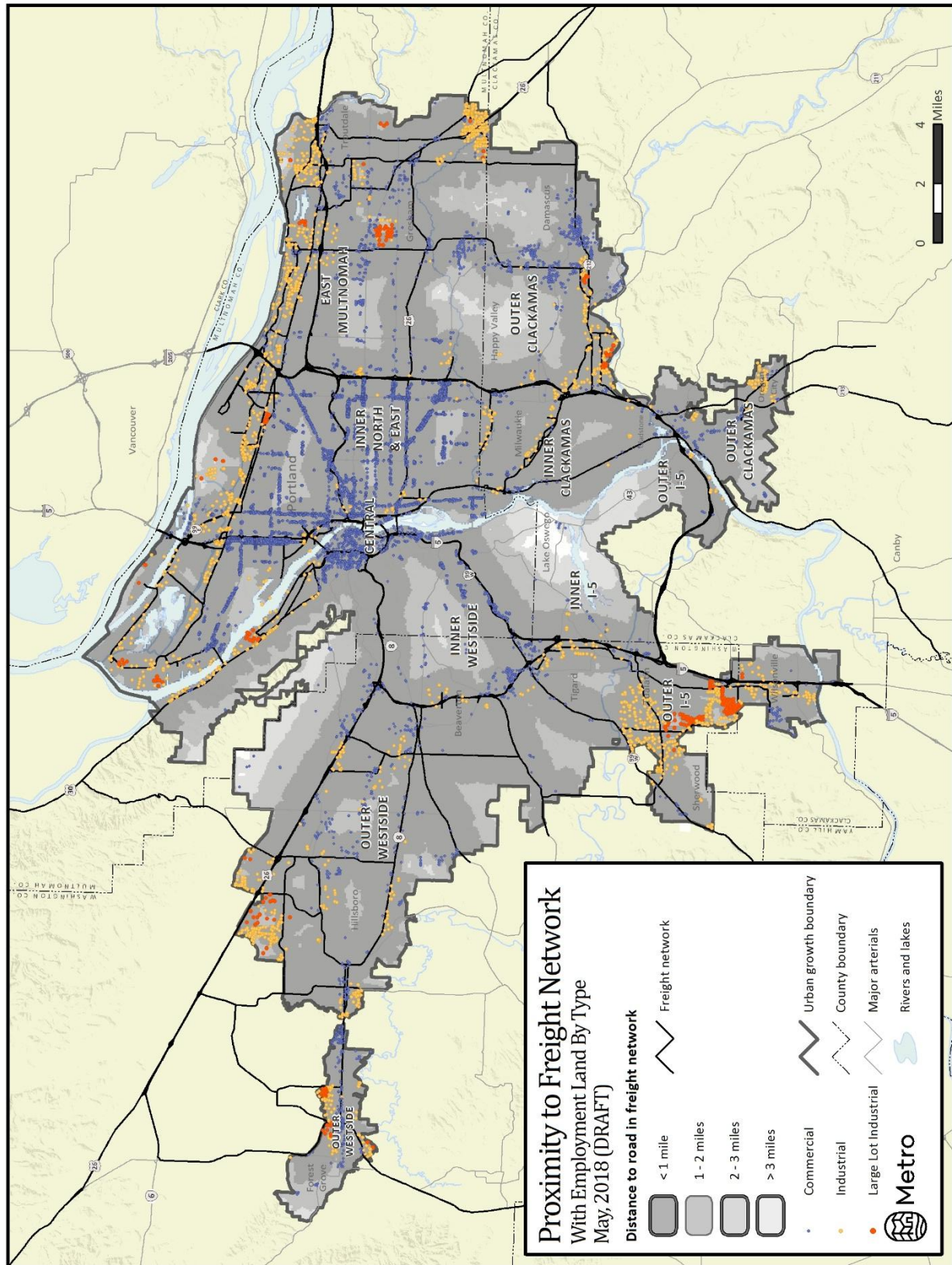
Map 10: Proximity to rail terminal



Map 11: Proximity to transshipment facilities



Map 12: Proximity to designated freight route



Proximity to Metro-area Airports
With Employment Land By Type
May, 2018 (DRAFT)

Distance to nearest Metro-area airport

- < 5 miles
- 5 - 10 miles
- 10 - 15 miles
- > 15 miles

Airport

- Commercial
- Industrial
- Large Lot Industrial

Urban growth boundary

County boundary

Major arterials

Rivers and lakes

Metro

**Proximity to Portland Airport
With Employment Land By Type
May, 2018 (DRAFT)**

Distance to Portland International Airport (PDX)

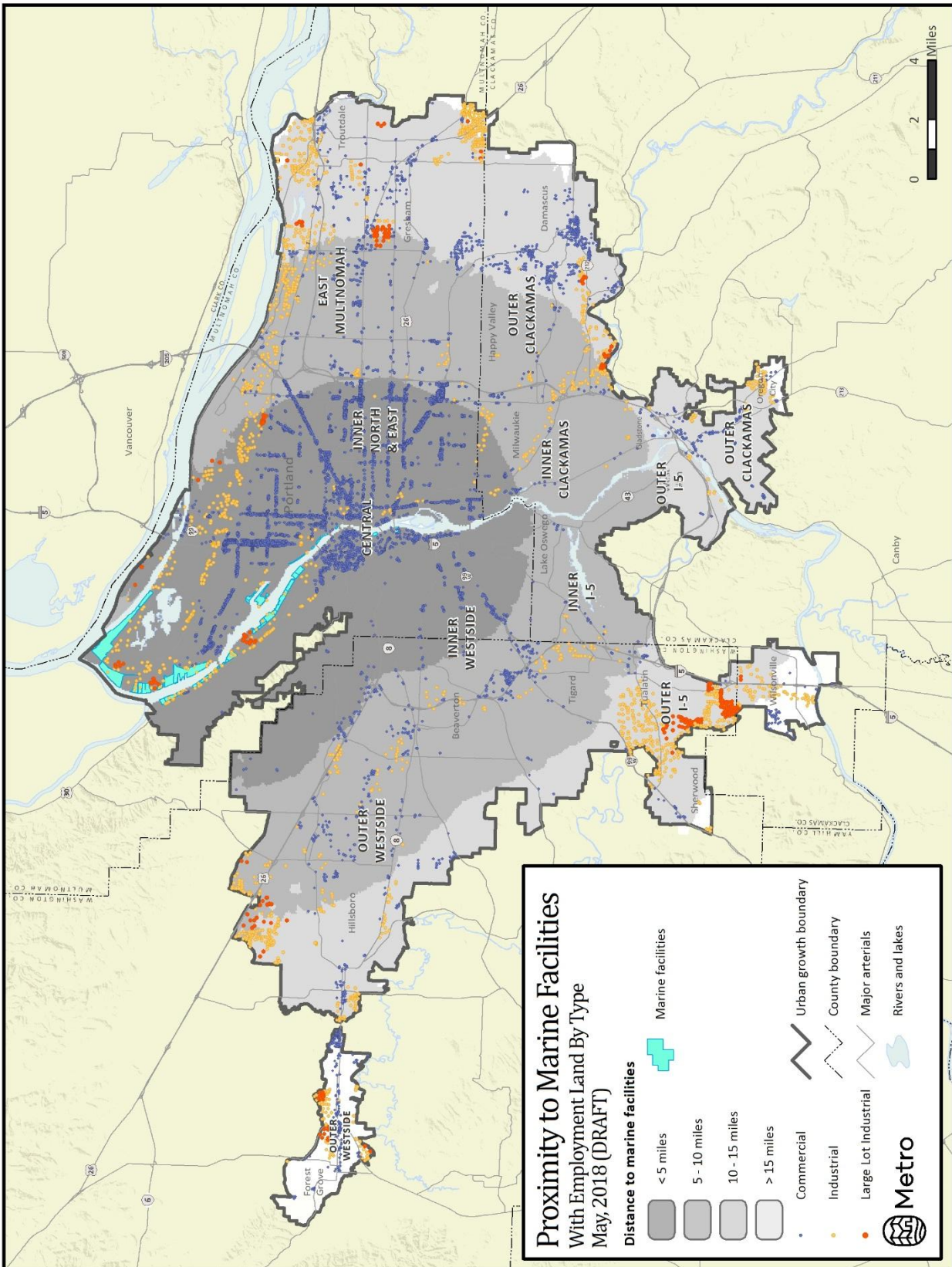
- < 5 miles
- 5 - 10 miles
- 10 - 15 miles
- > 15 miles

Legend:

- Commercial
- Industrial
- Large Lot Industrial
- Urban growth boundary
- County boundary
- Major arterials
- Rivers and lakes

Metro

Map 15: Proximity to marine facilities



Description of any development constraints or infrastructure needs that affect the buildable area of sites in the inventory

The methodology used for the buildable land inventory removes environmentally constrained acres.

Table 23: Environmentally constrained acres removed from buildable land inventory

Market Subarea	Acres of Environmentally Constrained Land
Central	58.0
Commercial	57.3
Industrial	0.7
East Multnomah	611.4
Commercial	114.6
Industrial	408.3
Large Lot Industrial	88.5
Inner Clackamas	48.0
Commercial	4.4
Industrial	43.6
Inner I-5	5.9
Commercial	1.2
Industrial	4.7
Inner North & East	767.5
Commercial	123.8
Industrial	450.1
Large Lot Industrial	193.6
Inner Westside	172.6
Commercial	109.7
Industrial	62.9
Outer Clackamas	430.4
Commercial	251.8
Industrial	160.1
Large Lot Industrial	18.4
Outer I-5	482.9
Commercial	36.1
Industrial	341.8
Large Lot Industrial	104.9
Outer Westside	324.7
Commercial	85.8
Industrial	153.8
Large Lot Industrial	85.1
Grand Total	2,901.4

Tables 3a and 3b describes constraints from slopes. Areas with slopes over 25 percent are removed from the buildable land inventory. For this site characteristics analysis, areas with slopes over 7% are identified.

Unconstrained: 10% or less of the taxlot has steep slopes

Partially Constrained: 10.01% to 50% of the taxlot has steep slopes

Constrained: 50 to 89.99% of the lot has steep slopes

Heavily Constrained: Greater than 90% of the site has steep slopes

Table 3a: Steep (>7%) slope constraints Threshold (Strike Price) Method (slopes over 25% are removed from buildable land inventory)

Threshold (Strike Price) Method

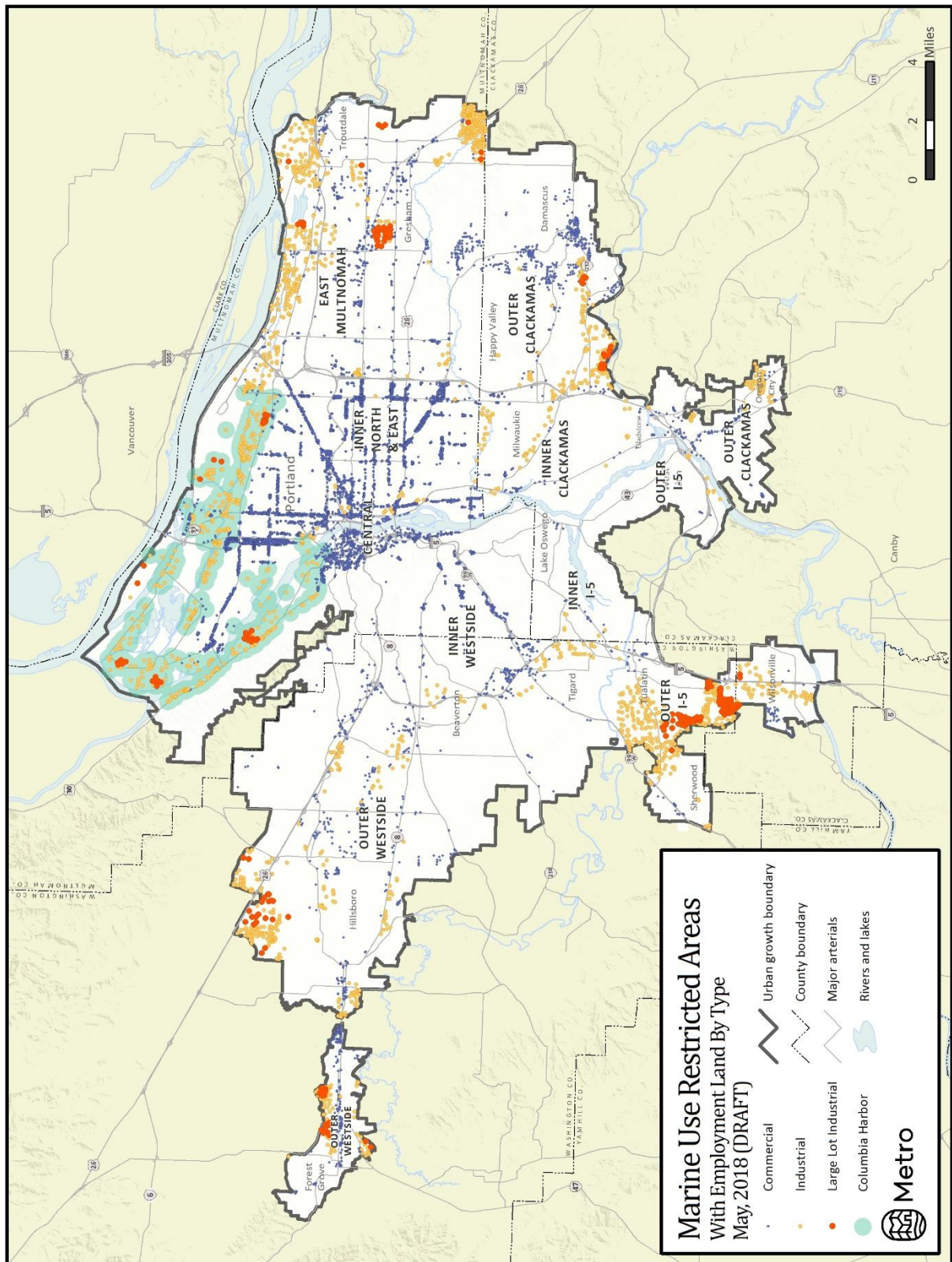
Market Subarea	Unconstrained		Partially constrained		Constrained		Heavily constrained		Total	
	Parcels	Acres	Parcels	Acres	Parcels	Acres	Parcels	Acres	Parcels	Acres
Central	142	24.1	238	37.5	155	14.2	200	8.3	735	84.0
Commercial	139	23.7	232	33.5	149	13.5	193	7.9	713	78.7
Industrial	3	0.4	6	4.0	6	0.6	7	0.4	22	5.4
East Multnomah	197	762.4	294	1,163.0	104	379.5	33	49.9	628	2,354.8
Commercial	77	102.5	105	158.9	43	66.4	17	17.2	242	345.1
Industrial	114	550.1	166	737.1	50	243.0	15	27.9	345	1,558.2
Large Lot Industrial	6	109.8	23	266.9	11	70.1	1	4.8	41	451.6
Inner Clackamas	13	9.0	39	89.0	16	5.4	8	1.6	76	105.0
Commercial	6	1.7	12	2.6	10	3.6	3	0.4	31	8.4
Industrial	7	7.3	27	86.4	6	1.7	5	1.2	45	96.6
Inner I-5	4	1.8	5	1.4	5	1.7	6	1.0	20	5.9
Commercial	3	0.5	4	0.3	4	1.2	4	0.3	15	2.3
Industrial	1	1.3	1	1.0	1	0.5	2	0.7	5	3.6
Inner North & East	472	547.8	663	1,179.3	225	106.9	152	27.4	1,512	1,861.3
Commercial	354	53.1	481	125.8	157	16.2	85	6.0	1,077	201.1
Industrial	104	351.2	165	482.3	63	79.0	67	21.4	399	933.9
Large Lot Industrial	14	143.5	17	571.2	5	11.7			36	726.4
Inner Westside	60	58.7	143	90.7	108	45.1	88	16.0	399	210.5
Commercial	49	32.4	106	33.3	91	21.3	87	15.8	333	102.8
Industrial	11	26.3	37	57.4	17	23.8	1	0.2	66	107.8
Outer Clackamas	120	335.4	223	590.8	125	318.7	94	117.5	562	1,362.4
Commercial	70	138.8	144	258.3	84	140.7	85	115.7	383	653.5
Industrial	49	185.8	71	301.0	33	124.4	9	1.8	162	613.0
Large Lot Industrial	1	10.9	8	31.4	8	53.6			17	95.9
Outer I-5	134	530.8	194	811.2	74	305.3	24	21.0	426	1,668.2
Commercial	10	8.4	19	17.8	11	8.5	15	11.4	55	46.1
Industrial	102	431.6	146	590.2	48	261.0	7	9.4	303	1,292.1
Large Lot Industrial	22	90.8	29	203.2	15	35.8	2	0.2	68	329.9
Outer Westside	166	1,100.0	164	611.5	54	63.5	12	1.5	396	1,776.4
Commercial	68	94.0	71	100.0	35	22.6	11	1.0	185	217.6
Industrial	78	407.1	85	314.1	19	40.8	1	0.5	183	762.5
Large Lot Industrial	20	598.9	8	197.4					28	796.3
Grand Total	1,308	3,369.9	1,963	4,574.3	866	1,240.2	617	244.2	4,754	9,428.6

Table 3b: Steep (>7%) slope constraints Statistical (Regression) Method (slopes over 25% are removed from buildable land inventory)

Statistical (Regression) Method

Market Subarea	Unconstrained		Partially constrained		Constrained		Heavily constrained		Total	
	Parcels	Acres	Parcels	Acres	Parcels	Acres	Parcels	Acres	Parcels	Acres
Central	142	7.7	238	15.1	155	3.7	200	3.0	735	29.5
Commercial	139	7.4	232	11.1	149	3.1	193	2.6	713	24.1
Industrial	3	0.4	6	4.0	6	0.6	7	0.4	22	5.4
East Multnomah	197	727.3	294	1,131.6	104	367.1	33	44.0	628	2,270.0
Commercial	77	67.4	105	127.5	43	54.0	17	11.3	242	260.2
Industrial	114	550.1	166	737.1	50	243.0	15	27.9	345	1,558.2
Large Lot Industrial	6	109.8	23	266.9	11	70.1	1	4.8	41	451.6
Inner Clackamas	13	8.4	39	87.9	16	5.3	8	1.5	76	103.1
Commercial	6	1.2	12	1.5	10	3.5	3	0.3	31	6.5
Industrial	7	7.3	27	86.4	6	1.7	5	1.2	45	96.6
Inner I-5	4	1.6	5	1.2	5	1.7	6	0.8	20	5.2
Commercial	3	0.2	4	0.1	4	1.1	4	0.1	15	1.6
Industrial	1	1.3	1	1.0	1	0.5	2	0.7	5	3.6
Inner North & East	472	516.5	663	1,151.9	225	99.7	152	25.6	1,512	1,793.6
Commercial	354	21.8	481	98.3	157	9.0	85	4.2	1,077	133.3
Industrial	104	351.2	165	482.3	63	79.0	67	21.4	399	933.9
Large Lot Industrial	14	143.5	17	571.2	5	11.7			36	726.4
Inner Westside	60	50.6	143	78.1	108	40.5	88	12.2	399	181.4
Commercial	49	24.3	106	20.7	91	16.7	87	12.0	333	73.7
Industrial	11	26.3	37	57.4	17	23.8	1	0.2	66	107.8
Outer Clackamas	120	306.1	223	549.9	125	302.0	94	95.2	562	1,253.2
Commercial	70	109.5	144	217.4	84	123.9	85	93.4	383	544.3
Industrial	49	185.8	71	301.0	33	124.4	9	1.8	162	613.0
Large Lot Industrial	1	10.9	8	31.4	8	53.6			17	95.9
Outer I-5	134	529.4	194	809.4	74	304.3	24	19.5	426	1,662.6
Commercial	10	7.1	19	16.0	11	7.6	15	9.9	55	40.5
Industrial	102	431.6	146	590.2	48	261.0	7	9.4	303	1,292.1
Large Lot Industrial	22	90.8	29	203.2	15	35.8	2	0.2	68	329.9
Outer Westside	166	1,091.5	164	592.0	54	57.2	12	1.1	396	1,741.7
Commercial	68	85.5	71	80.5	35	16.3	11	0.6	185	183.0
Industrial	78	407.1	85	314.1	19	40.8	1	0.5	183	762.5
Large Lot Industrial	20	598.9	8	197.4					28	796.3
Grand Total	1,308	3,239.2	1,963	4,416.9	866	1,181.5	617	202.8	4,754	9,040.3

Map 16: Marine use restrictions



**Aviation Overlay Zones
With Employment Land By Type
May, 2018 (DRAFT)**

- Commercial
- Industrial
- Large Lot Industrial
- Aviation zone
- Urban growth boundary
- County boundary
- Major arterials
- Rivers and lakes

Metro

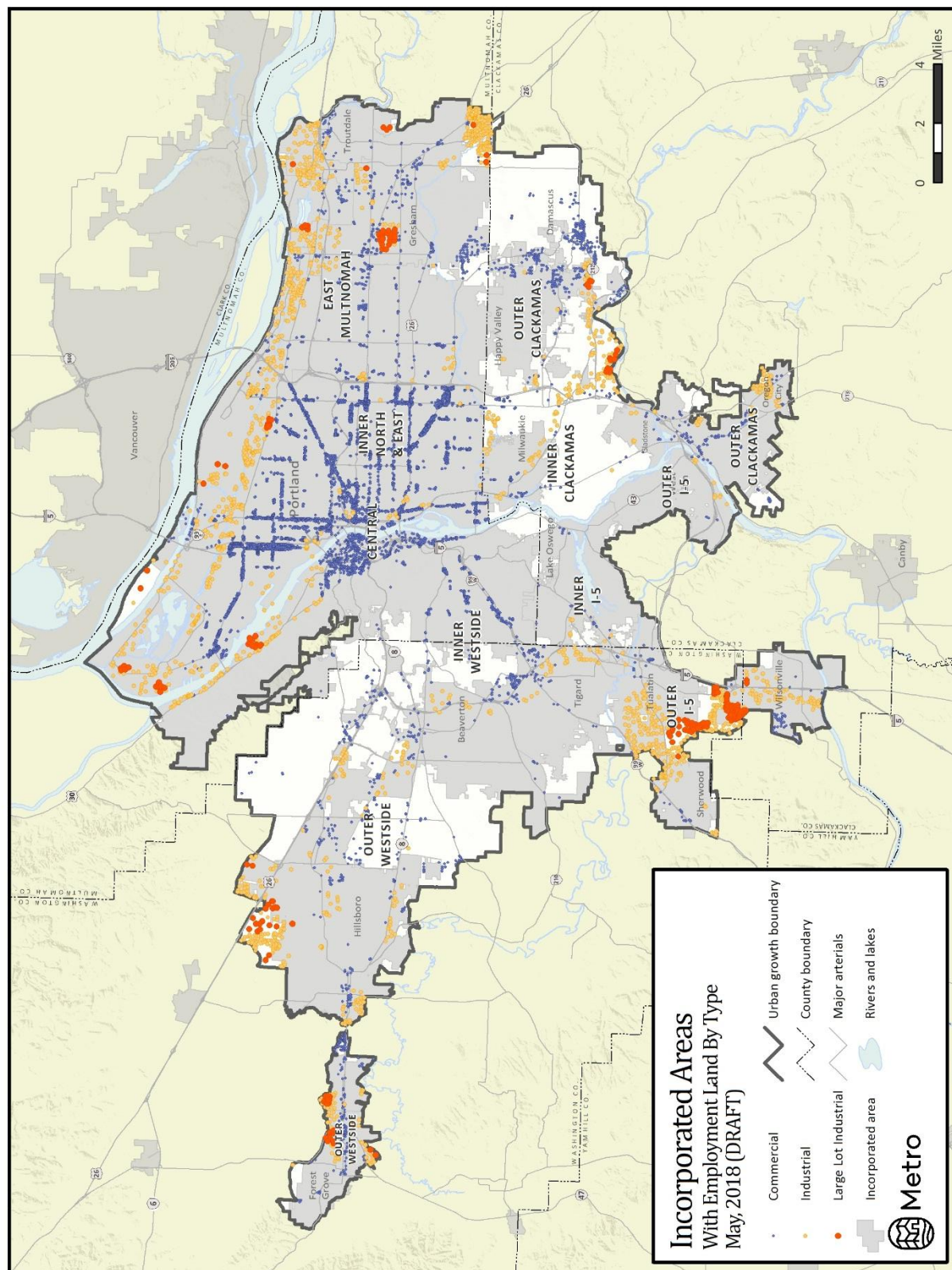
Table 4: Acreages by category of land in buildable land inventory

Market Subarea	Developed		Redevelopable		Vacant		Total	
	Parcels	Acres	Parcels	Acres	Parcels	Acres	Parcels	Acres
Central	2	3.1	1083.0	377.9	313	66.6	1398	447.6
Commercial	2	3.1	1081.0	374.0	286	63.9	1369	441.1
Industrial			2.0	3.8	27	2.7	29	6.5
East Mult Co	92	1110.1	485.0	1613.7	404	1340.3	981	4064.2
Commercial	27	152.3	281.0	509.1	226	340.3	534	1001.7
Industrial	56	863.2	181.0	989.2	169	829.5	406	2681.9
Large Lot Industrial	9	94.6	23.0	115.4	9	170.5	41	380.5
Inner Clackamas	16	152.6	26.0	85.4	74	38.5	116	276.5
Commercial	4	8.6	15.0	5.8	47	24.9	66	39.3
Industrial	12	144.0	11.0	79.6	27	13.6	50	237.2
Inner I-5	4	11.9	10.0	4.5	13	9.5	27	25.8
Commercial			10.0	4.5	11	8.7	21	13.2
Industrial	4	11.9			2	0.8	6	12.7
Inner North & East	125	1128.7	4157.0	1693.5	608	1065.1	4890	3887.3
Commercial	21	100.6	4045.0	861.1	294	153.2	4360	1114.8
Industrial	88	1005.4	99.0	624.1	301	394.1	488	2023.6
Large Lot Industrial	16	22.8	13.0	208.3	13	517.9	42	748.9
Inner Westside	28	362.6	287.0	406.8	161	164.5	476	933.9
Commercial	9	82.9	261.0	337.0	138	123.5	408	543.4
Industrial	19	279.7	26.0	69.8	23	41.0	68	390.5
Outer Clackamas	89	415.3	355.0	1227.3	243	853.7	687	2496.3
Commercial	50	213.5	277.0	803.5	154	518.2	481	1535.1
Industrial	38	199.4	68.0	369.1	83	288.2	189	856.8
Large Lot Industrial	1	2.4	10.0	54.7	6	47.3	17	104.5
Outer I-5	70	491.0	234.0	1365.0	191	818.0	495	2674.1
Commercial	6	55.9	14.0	22.8	56	94.6	76	173.3
Industrial	44	405.2	173.0	959.7	106	476.9	323	1841.7
Large Lot Industrial	20	29.8	47.0	382.6	29	246.6	96	659.0
Outer Westside	33	146.0	350.0	1560.3	292	1365.5	675	3071.8
Commercial	17	75.6	179.0	428.8	144	400.6	340	905.1
Industrial	14	68.8	160.0	797.4	118	363.9	292	1230.1
Large Lot Industrial	2	1.5	11.0	334.1	30	601.0	43	936.6
Grand Total	459	3821.3	6987.0	8334.6	2299	5721.7	9745	17877.6

Table 5: Incorporation status (land inside city boundary)

Market Subarea	Incorporated Area		Unincorporated Area		Total	
	Parcels	Acres	Parcels	Acres	Parcels	Acres
Central	1,398	145.4			1,398	145.4
Commercial	1,369	139.6			1,369	139.6
Industrial	29	5.9			29	5.9
East Multnomah	796	1,985.3	185	662.5	981	2,647.9
Commercial	504	414.2	30	72.8	534	487.0
Industrial	254	1,214.0	152	495.3	406	1,709.3
Large Lot Industrial	38	357.2	3	94.4	41	451.6
Inner Clackamas	73	86.7	43	28.3	116	115.0
Commercial	45	10.5	21	7.4	66	17.9
Industrial	28	76.2	22	20.9	50	97.1
Inner I-5	27	8.2			27	8.2
Commercial	21	2.9			21	2.9
Industrial	6	5.3			6	5.3
Inner North & East	4,887	1,880.3	3	313.2	4,890	2,193.5
Commercial	4,360	412.6			4,360	412.6
Industrial	487	1,000.6	1	13.2	488	1,013.9
Large Lot Industrial	40	467.0	2	300.0	42	767.0
Inner Westside	432	192.5	44	29.5	476	221.9
Commercial	376	105.1	32	8.2	408	113.3
Industrial	56	87.4	12	21.3	68	108.7
Outer Clackamas	326	588.5	361	863.4	687	1,451.9
Commercial	236	221.2	245	488.4	481	709.7
Industrial	85	330.4	104	315.9	189	646.3
Large Lot Industrial	5	36.8	12	59.1	17	95.9
Outer I-5	301	861.9	194	956.6	495	1,818.6
Commercial	76	49.5			76	49.5
Industrial	216	763.3	107	556.9	323	1,320.3
Large Lot Industrial	9	49.0	87	399.7	96	448.8
Outer Westside	388	975.1	287	1,274.5	675	2,249.7
Commercial	189	167.1	151	120.2	340	287.3
Industrial	172	467.4	120	549.5	292	1,016.9
Large Lot Industrial	27	340.6	16	604.8	43	945.5
Grand Total	8,628	6,724.0	1,117	4,128.1	9,745	10,852.1

Map 18: Incorporation status (land inside city boundary)



Map 19: Land value per square foot

