

Central Sub-Area Workshop #2 Data Table

4/23/2014

The table below is organized by evaluation factor and includes the data requested in Central Sub-Area Workshop #1. Please reference the table below while you use the Segment Scoring Sheet to score the route segments in the central sub-area. Data is organized by evaluation factor.

Glossary:

- Near: Within 600 feet of a corridor
- Adjacent: Within 25 feet of a corridor
- DNR: Washington Department of Natural Resources
- LiDAR: Short for “Light Detection and Ranging,” is a [remote sensing](#) method that uses light in the form of a pulsed laser to measure ranges.
- DBH: Diameter at breast height, or a method of measuring the diameter of a standing tree.

If you do not see data you requested, please review the Response to Data Requests document for an explanation.

Segment data table

Data	Description	Unit	Segment D 2.14 miles	Segment E 2.98 miles	Segment F 2.13 miles	Segment G1 0.51 miles	Segment G2 0.67 miles	Segment H 1.08 miles	Segment I 1.23 miles	Segment J 2.36 miles	Segment K1 0.57 miles	Segment K2 0.88 miles
Evaluation factor one - Least proximity to residential areas												
Residential Parcels - Adjacent	Residential use within 25 feet of a corridor (based on King County assessor data).	Count of Parcels	1	77	5	3	1	47	10	123	11	20
	Residential use within 25 feet of a corridor (based on King County assessor data).	Count/Mile	0.5	25.8	2.3	5.9	1.5	43.5	8.1	52.1	19.3	22.7
Residential Parcels - Near	Residential use within 600 feet of a corridor (based on King County assessor data).	Count of Parcels	30	373	70	44	37	220	87	721	102	165
	Residential use within 600 feet of a corridor (based on King County assessor data).	Count/Mile	14	125.2	32.9	86.3	55.2	203.7	70.7	305.5	178.9	187.5

Data	Description	Unit	Segment D	Segment E	Segment F	Segment G1	Segment G2	Segment H	Segment I	Segment J	Segment K1	Segment K2
			2.14 miles	2.98 miles	2.13 miles	0.51 miles	0.67 miles	1.08 miles	1.23 miles	2.36 miles	0.57 miles	0.88 miles
Residential Tax Accounts - Adjacent	Residential tax payers within 25 feet of a corridor (based on King County assessor data).	Count of Tax Payers	60	98	180	42	1	120	105	123	40	20
	Residential tax payers within 25 feet of a corridor (based on King County assessor data).	Count/Mile	28.0	32.9	84.5	82.4	1.5	111.1	85.4	52.1	70.2	22.7
Residential Parcels with No Existing Transmission Infrastructure - Adjacent	Residential use within 25 feet of a corridor that have no existing transmission lines (based on King County assessor data).	Count of Parcels	1	1	1	0	0	47	0	0	0	0
	Residential use within 25 feet of a corridor that have no existing transmission lines (based on King County assessor data).	Count/Mile	0.5	0.3	0.5	0.0	0.0	43.5	0.0	0.0	0.0	0.0
Residential Parcels with No Existing Transmission Infrastructure - Near	Residential use within 600 feet of a corridor without existing transmission lines (based on King County assessor data).	Count of Parcels	30	7	12	0	1	182	0	0	0	0
	Residential use within 600 feet of a corridor without existing transmission lines (based on King County assessor data).	Count/Mile	14.0	2.3	5.6	0.0	1.5	168.5	0.0	0.0	0.0	0.0
Evaluation factor two - Maximizes opportunity areas												
Type of right-of-way	Cross-country transmission corridor length.	Miles	0.00	2.98	0.00	0.00	0.00	0.00	0.00	2.36	0.00	0.00
	Cross-country transmission corridor length.	Percent	0	100	0	0	0	0	0	100	0	0
	Corridor length along public right-of-way.	Miles	1.98	0.12	0.80	0.38	0.50	0.00	1.23	0.32	0.56	0.88
	Corridor length along public right-of-way.	Percent	93	4	38	75	75	0	100	14	98	100
	Corridor length along Eastside Rail Corridor or railroad right-of-way.	Miles	0.01	0.0	1.3	0.0003	0.0	1.1	0.0	0.0	0.0	0.0
	Corridor length along Eastside Rail Corridor or railroad right-of-way.	Percent	0	0	61	0	0	102	0	0	0	0
Existing Transmission Infrastructure	Miles of existing Overhead Transmission Infrastructure. See Map.	Miles	0.004	2.98	1.21	0.51	0.67	0.00	1.23	2.36	0.57	0.88
	Miles of existing Overhead Transmission Infrastructure. See Map.	Percent	0	100	57	100	100	0	100	100	100	100
	Miles of Railroad right-of-way with adjacent existing Overhead Transmission Infrastructure. See Map.	Miles	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Data	Description	Unit	Segment D	Segment E	Segment F	Segment G1	Segment G2	Segment H	Segment I	Segment J	Segment K1	Segment K2
			2.14 miles	2.98 miles	2.13 miles	0.51 miles	0.67 miles	1.08 miles	1.23 miles	2.36 miles	0.57 miles	0.88 miles
	Miles of Railroad right-of-way with adjacent existing Overhead Transmission Infrastructure. See Map.	Percent	0.0	0	0	0	0	0	0	0	0	0
Evaluation factor three - Most protective of health and safety												
Fuel Pipeline Present	Liquid fuel pipelines present with existing high voltage transmission lines.	Presence	No	Yes	No	No	No	No	No	Yes	No	No
Polychlorinated Biphenyl (PCB) Levels	None of the equipment proposed along any segment or as part of substation improvements will contain PCBs.	Additional PCBs	0	0	0	0	0	0	0	0	0	0
EMF from New Line	EMF levels are design and operationally dependent; however, all levels will be below published World Health Organization (W.H.O.) and Institute of Electrical and Electronics Engineers (IEEE) recommended exposure levels.	Below Recommended W.H.O. and IEEE Levels	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Evaluation factor four - Least proximity to sensitive community land use areas												
Churches - Near	Religious Service Institution use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	2	0	1	2	1	1	3	0	1	1
	Religious Service Institution use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0.9	0.0	0.5	3.9	1.5	0.9	2.4	0.0	1.8	1.1
Schools - Near	School use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	1	1	1	1	1	0	1	2	1	1
	School use within 600 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0.5	0.3	0.5	2.0	1.5	0.0	0.8	0.8	1.8	1.1
Schools - Adjacent	School use within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	0	0	0	1	0	0	0	1	1	0
	School use within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.4	1.8	0.0

Data	Description	Unit	Segment D	Segment E	Segment F	Segment G1	Segment G2	Segment H	Segment I	Segment J	Segment K1	Segment K2
			2.14 miles	2.98 miles	2.13 miles	0.51 miles	0.67 miles	1.08 miles	1.23 miles	2.36 miles	0.57 miles	0.88 miles
Students - Near	Number of students attending within 600 feet of a corridor (based on King County assessor data and Google Earth). <i>*Some attendance data not readily available.</i>	Count	2664	20	90	*	*	0	*	1107	1633	1633
Child Care - Adjacent	Child Care Facilities within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count of Parcels	0	0	0	0	0	0	0	0	0	0
	Child Care Facilities within 25 feet of a corridor (based on King County assessor data and Google Earth).	Count/Mile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recreation - Adjacent	Recreational use within 25 feet of a corridor (based on King County assessor data).	Count of Parcels	0	3	2	0	1	0	0	2	2	2
	Recreational use within 25 feet of a corridor (based on King County assessor data).	Count/Mile	0.0	1.0	0.9	0.0	1.5	0.0	0.0	0.8	3.5	2.3
Parks - Adjacent	Park use within 25 feet of a corridor (based on King County assessor data).	Count of Parcels	2	2	2	1	0	1	0	3	2	1
	Park use within 25 feet of a corridor (based on King County assessor data).	Count/Mile	0.9	0.7	0.9	2.0	0.0	0.9	0.0	1.3	3.5	1.1
Trails - Near	Length of trails within 600 feet of a corridor (based on King County Trails File).	Miles	0.6	1.3	2.5	0.1	0	1.6	0.3	0.3	0.6	0.8
	Count of trails within 600 feet of a corridor (based on King County Trails File).	Count	2	3	2	1	0	4	2	1	1	1
Trails - Adjacent	Length of trails within 25 feet of a corridor (based on King County Trails File).	Miles	0.00	0.42	0.74	0.00	0.00	0.09	0.07	0.01	0.08	0.01
	Count of trails within 25 feet of a corridor (based on King County Trails File).	Count	0	2	1	0	0	2	2	1	1	1
Registered Historic Sites	Registered Historic Sites within half mile of segments.	Count	0	1	0	0	0	0	0	0	0	0
Evaluation factor five - Least proximity to sensitive environmental areas												
Wildlife	Number of State Documented wildlife species present per Priority Habitat and Species Data. Includes known salmonid species present.	Species Count	4	4	4	0	0	5	0	1	0	1

Data	Description	Unit	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment
			D 2.14 miles	E 2.98 miles	F 2.13 miles	G1 0.51 miles	G2 0.67 miles	H 1.08 miles	I 1.23 miles	J 2.36 miles	K1 0.57 miles	K2 0.88 miles
Wetlands	Wetlands identified within 50 feet both sides of segment centerline (either from GIS data or field reconnaissance). This information is based on visual observations and does not include delineations.	Count	2	11	6	0	3	7	1	5	3	6
	Wetlands identified within 50 feet both sides of segment centerline (either from GIS data or field reconnaissance). This information is based on visual observations and does not include delineations.	Count/Mile	0.9	3.7	2.8	0.0	4.5	6.5	0.8	2.1	5.3	6.8
Stream Crossings	Stream within 50 feet both sides of segment centerline (based on GIS layers and field reconnaissance).	Count	1	11	2	0	5	3	0	3	1	8
	Stream within 50 feet both sides of segment centerline (based on GIS layers and field reconnaissance).	Count/Mile	0.5	3.7	0.9	0.0	7.5	2.8	0.0	1.3	1.8	9.1
High Slope Instability - Adjacent	High instability within 25 feet of the right-of-way (based on WA DNR Slope Stability Rating Area).	Percent of Segment	0.1	5.6	8.4	1.5	0.0	15.5	1.3	8.7	2.6	9.3
Medium Slope Instability - Adjacent	Medium instability within 25 feet of the right-of-way (based on WA DNR Slope Stability Rating Area).	Percent of Segment	0.9	9.0	6.2	4.1	1.3	10.5	2.1	11.7	3.0	9.0
Low Slope Instability - Adjacent	Low instability within 25 feet of the right-of-way (based on WA DNR Slope Stability Rating Area).	Percent of Segment	0.0	3.8	1.0	0.0	0.0	4.2	0.2	6.4	0.3	3.1
Moderately Steep Slopes - Adjacent	Slopes greater than 20% and less than 40% within 25 feet of the right-of-way, derived from King County LiDAR elevation.	Percent of Segment	7.3	27.0	20.0	16.0	14.5	27.2	12.0	26.4	18.3	12.9
Steep Slopes - Adjacent	Slopes greater than 40% within 25 feet of the right-of-way, derived from King County LiDAR elevation.	Percent of Segment	1.9	11.0	20.3	7.5	5.0	37.1	8.7	10.2	18.0	24.9
Faults - Near	Number of faults that are within 25 feet of a corridor derived from WA DNR fault data set.	Count	0	2	0	2	1	0	4	0	0	0
	Number of faults that are within 25 feet of a corridor derived from WA DNR fault data set.	Count/Mile	0.0	0.9	0.0	3.0	0.9	0.0	1.7	0.0	0.0	0.0

Other relevant data

Some requests were made that did not directly relate to evaluation factors and that information is captured in the table below.

Data	Description	Unit	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment
			D	E	F	G1	G2	H	I	J	K1	K2
			2.14 miles	2.98 miles	2.13 miles	0.51 miles	0.67 miles	1.08 miles	1.23 miles	2.36 miles	0.57 miles	0.88 miles
Businesses – Near	Industrial, Medical, Retail/Business use within 600 feet of a corridor (based on King County assessor data).	Count of Parcel	168	63	43	13	28	8	51	13	0	0
	Industrial, Medical, Retail/Business use within 600 feet of a corridor (based on King County assessor data).	Count/Mile	78.5	21.1	20.2	25.5	41.8	7.4	41.5	5.5	0.0	0.0
Road Access for Construction	Access from roads using typical bucket truck equipment (based on King County parcels and ArcGIS Basemap imagery).	Miles	2.0	0.1	0.8	0.1	0.5	0.01	1.2	0.3	0.5	0.9
	Access from roads using typical bucket truck equipment (based on King County parcels and ArcGIS Basemap imagery).	Percent	94	3	38	24	75	1	100	11	86	100
Construction Cost Estimate	Percent difference from average cost estimate including construction, vegetation removal and restoration.	Percent	-2	-20	-12	63	34	-21	15	-4	31	-11
Electric System Longevity	Electric System Longevity: Estimated year when the next 230 kV line for a second Eastside transformer is needed. Depends on the complete route, not just an individual segment. *Requires the entire route built to accommodate two 230 kV lines.	Year	2034-2038	2038-2060*	2034-2038	2034-2038	2034-2038	2034-2038	2034-2038	2060*	2034-2038	2034-2038
Industrial – Near	Industrial use within 600 feet of a corridor (based on King County assessor data).	Count of Parcel	49	25	9	6	22	4	3	8	0	0
	Industrial use within 600 feet of a corridor (based on King County assessor data).	Count/mile	22.9	8.4	4.2	11.8	32.8	3.7	2.4	3.4	0.0	0.0
Industrial – Adjacent	Industrial use within 25 feet of a corridor (based on King County assessor data).	Count of Parcel	19	5	6	0	10	1	0	1	0	0
	Industrial use within 25 feet of a corridor (based on King County assessor data).	Count/Mile	8.9	1.7	2.8	0.0	14.9	0.9	0.0	0.4	0.0	0.0

Data	Description	Unit	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment	Segment
			D 2.14 miles	E 2.98 miles	F 2.13 miles	G1 0.51 miles	G2 0.67 miles	H 1.08 miles	I 1.23 miles	J 2.36 miles	K1 0.57 miles	K2 0.88 miles
Proposed Substation 115kV Improvements	See Map showing additional 115kV improvements needed for the Westminster or Vernell substation sites.	See Map	See Map	See Map	See Map	See Map	See Map	See Map	See Map	See Map	See Map	See Map
Tree Removal	Total number of trees greater than 4-inch dbh throughout entire segment. The following methods were used to develop the tree estimates: LiDAR, Google Earth, and/or field reconnaissance.	Tree Total >4-inch (dbh)	859	1,270	891	94	246	983	204	1,526	356	953
	Total number of trees greater than 4-inch (dbh) that would require removal or work. The following methods were used to develop the tree estimates: LiDAR, Google Earth, and/or field reconnaissance.	Trees >4-inch (dbh) per mile	401	426	418	184	367	910	166	647	625	1083