



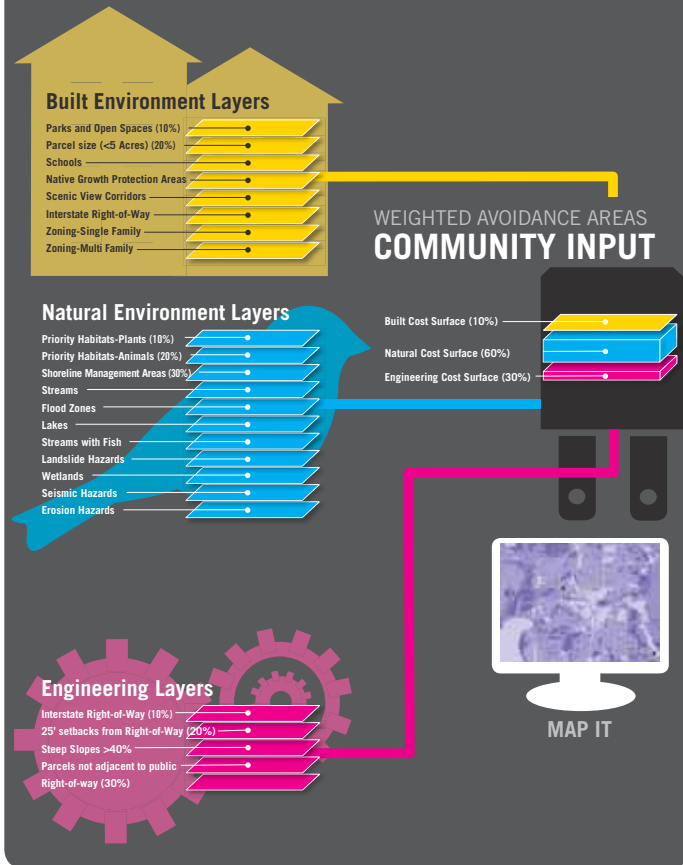
GEOENGINEERS
Geo Route

115 kV Transmission Line Route Study
 Sammamish – Juanita

- Locating a route for a 115 kV transmission line that is compatible with:
- Sensitive Land Uses
 - Sensitive Natural Features
 - Engineering Design and Safety Standards
 - Community Values

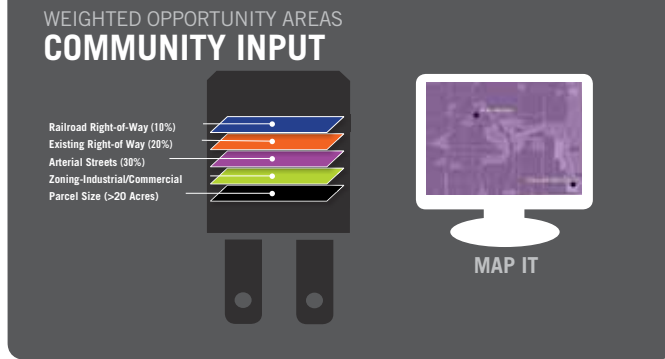
AVOIDANCE AREAS

IDENTIFY, WEIGHT, & MAP



OPPORTUNITIES

IDENTIFY, WEIGHT, & MAP



COMBINED OPPORTUNITIES & AVOIDANCE AREAS

IDENTIFY, WEIGHT, & MAP



**OUTPUT:
 MAP OF ROUTE**

GeoRoute Model Criteria and Weightings

Avoidance Areas: Built Environment

Data Reviewed, Within Study Area	Weighting	Data Sources
Single-Family Residential Zoning	20%	Redmond, Kirkland
Multi-Family Residential Zoning	15%	Redmond, Kirkland
Urban Recreation Zoning	10%	Redmond
Native Growth Protection Easement	15%	Redmond, Kirkland
Parcel Size < 5 acres	7%	Redmond, Kirkland
Local Parks	8%	Redmond, Kirkland
Mapped View Corridors	5%	Redmond, Kirkland
Area of known WSDOT Improvements	10%	PSE
School Parcels	10%	Redmond, Kirkland
Total	100%	

Avoidance Areas: Natural Environment

Data Reviewed, Within Study Area	Weighting	Data Sources
Wetlands < 1 acre	5%	Redmond, Kirkland
Wetlands > 1 acre	10%	Redmond, Kirkland
Landslide Hazard	10%	Redmond, Kirkland
Erosion Hazard	10%	Redmond, King County
Seismic/Liquefaction Hazard	5%	Redmond, Kirkland
Steep Slopes	10%	LiDAR derived from Puget Sound LiDAR Consortium
Stream, non-fish bearing (PHS)	5%	Redmond, Kirkland, WA Dept F&W
Stream, fish-bearing (PHS)	10%	Redmond, Kirkland, WA Dept F&W
Priority Habitat and Species (PHS) Polygons	15%	WA Dept F&W
Shoreline Jurisdiction	0%	Kirkland, King County
Lakes (included in wetlands)	0%	Redmond, Kirkland
100-yr floodplain	10%	Redmond, Kirkland
Contiguous Tree Canopy >10 acres	10%	Kirkland, digitized from aerial photos
Total	100%	

Avoidance Areas: Engineering Considerations

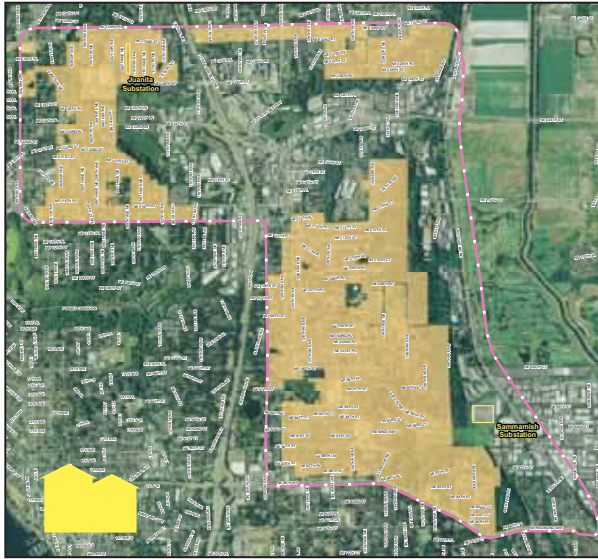
Data Reviewed, Within Study Area	Weighting	Data Sources
Interstate Highway Crossing	30%	King County
Parcel not adjacent to Public R/W	15%	Redmond, Kirkland
Buildings within 15' setback of R/W	20%	Redmond, Kirkland
Steep Slopes	20%	LiDAR derived from Puget Sound LiDAR Consortium
Street Curves	15%	Redmond, Kirkland
Total	100%	

Opportunities

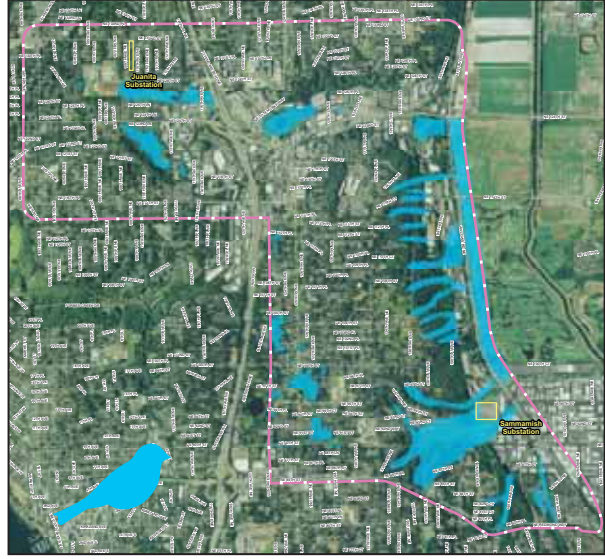
Data Reviewed, Used for Modeling	Original Weighting	11/28/11 Weighting	Data Sources
W/in Commercial, Industrial Zoning District	15%	20%	Redmond, Kirkland
Adj. to Arterial Street	25%	25%	Redmond, Kirkland
Adj. or w/in Regional Trail Rights of Way	10%	0%	Redmond, Kirkland
Adj. to Railroad Rights of Way	10%	10%	Redmond, Kirkland
Parcel Size > 20 acres	10%	10%	Redmond, Kirkland
PSE Ownership/Rights of Way	15%	15%	Redmond, Kirkland
Overhead Distribution	15%	20%	Redmond, Kirkland
Total	100%	100%	

Example Layers in GeoRoute Model

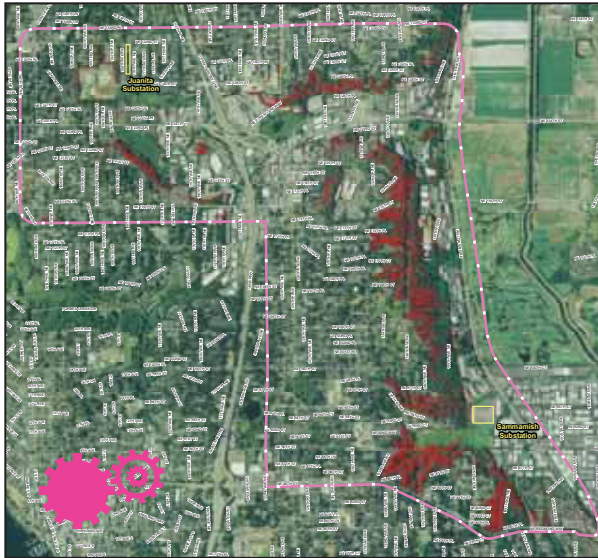
Single Family Residences:



Wetlands:



Steep Slopes:



Commercial and Industrial:

