

Table S2. Precipitation classes contribution to Groundwater Recharge Potential (GWRP).

Spatial datasets	Class	Rank
Precipitation	1441	5
	1755	7
	2108	9

Table S3. Geology classes contribution to Groundwater Recharge Potential (GWRP).

Spatial datasets	Class	Rank
Geology	Flood plains and associated higher terraces along major streams and abandoned drainage lines	9
	Proglacial lake bottom sediments underlying terraced and channeled surfaces between major morainal belts in lowland and mountain valleys	9
	Outwash and valley train deposits of Naptowne age	7
	Terraced moraines of Naptowne age	7
	Moraines of Naptowne glaciation, limit of Killey advance	7
	Moraines of Naptowne glaciation, limit of Moosehorn advance	7
	Outwash and valley train deposits of Knik age	5
	Terraced moraines of Knik age	5
	Moraine of Knik glaciation	5
	Terraced moraines of Eklutna age	3
	Moraines of Eklutna glaciation	3
	Tidal silt and beach deposits	1

Table S4. Soil Texture classes contribution to Groundwater Recharge Potential (GWRP).

Spatial datasets	Class	Rank
Soil Texture	Stratified sand to gravel	9
	Gravelly sand	9
	Extremely gravelly loamy coarse sand	9
	Very gravelly loamy sand	9
	Loamy sand	8
	Loamy fine sand	8
	Very cobbly sandy loam	8
	Gravelly sandy loam	8
	Sandy loam	7
	Gravelly fine sandy loam	8
	Very fine sandy loam	7
	Silt loam	7
	Mucky silt loam	5
	Slightly decomposed plant material	4
	Moderately decomposed plant material	4
	Mucky peat	3
	Peat	1

Table S5. Slope classes contribution to Groundwater Recharge Potential (GWRP).

Spatial datasets	Class	Rank
Slope	0 - 1	9
	1 - 2	7
	2 - 5	5
	5 - 10	3
	10 - 70	1

Table S6. Drainage Density classes contribution to Groundwater Recharge Potential (GWRP).

Spatial datasets	Class	Rank	8
			9
Drainage Density	0 - 5	9	
	5 - 6	7	10
	6 - 7	5	11
	7 – 10	3	12
	10 – 13	1	13
			14

Table S7. Land Cover classes contribution to Groundwater Recharge Potential (GWRP).

Spatial datasets	Class	Rank
Land Cover	Open water	9
	Developed, Open Space	4
	Developed, Low Intensity	3
	Developed, Medium Intensity	2
	Developed, High Intensity	1
	Barren Land	4
	Deciduous Forest	6
	Evergreen Forest	6
	Mixed Forest	6
	Dwarf Shrub	5
	Shrub/Scrub	5
	Grasslands/Herbaceous	7
	Pasture/Hay	7
	Woody Wetlands	8
	Emergent Herbaceous Wetlands	8