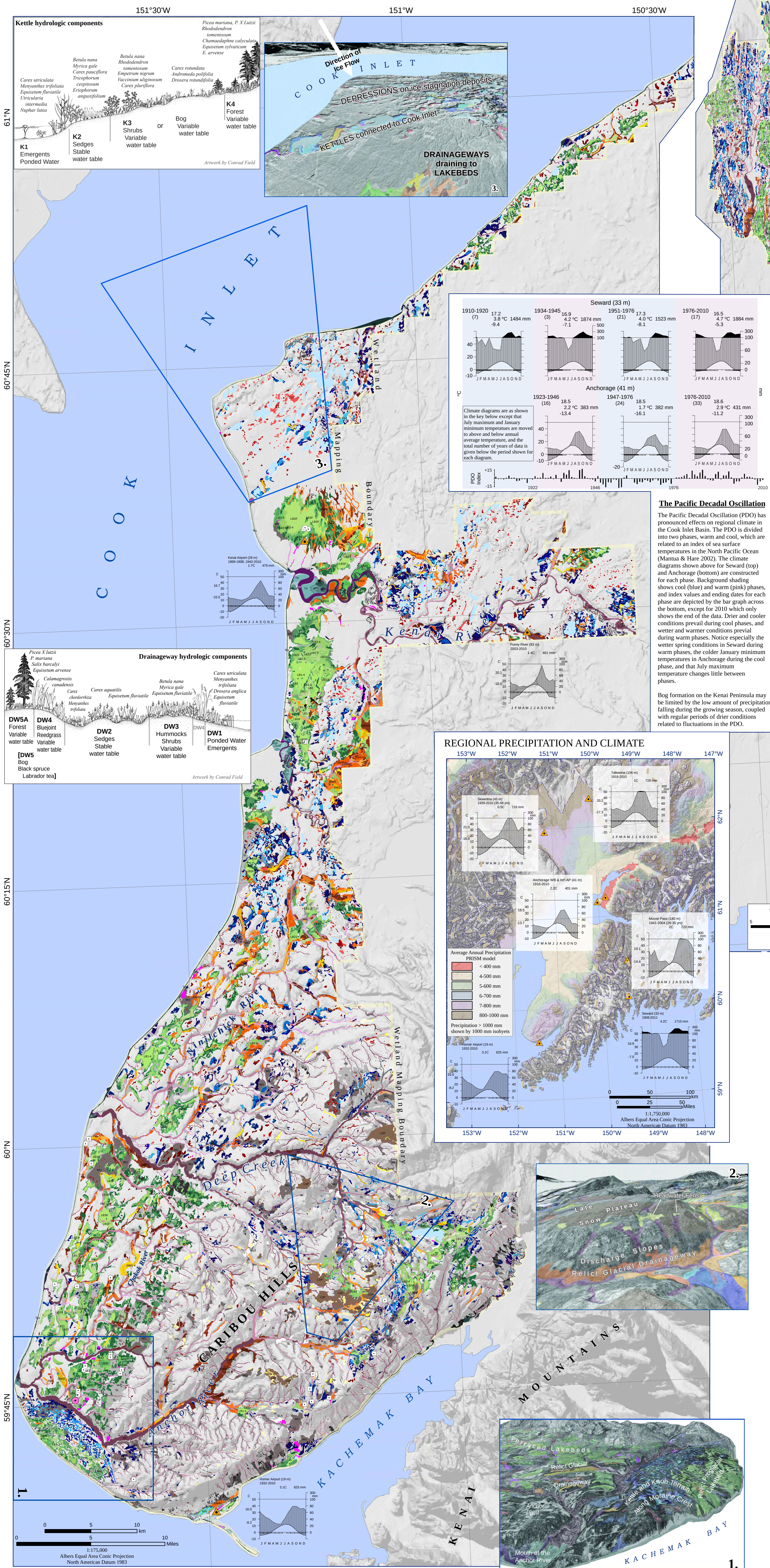


SHEET 1. WETLANDS AND CLIMATE

KENAI PENINSULA



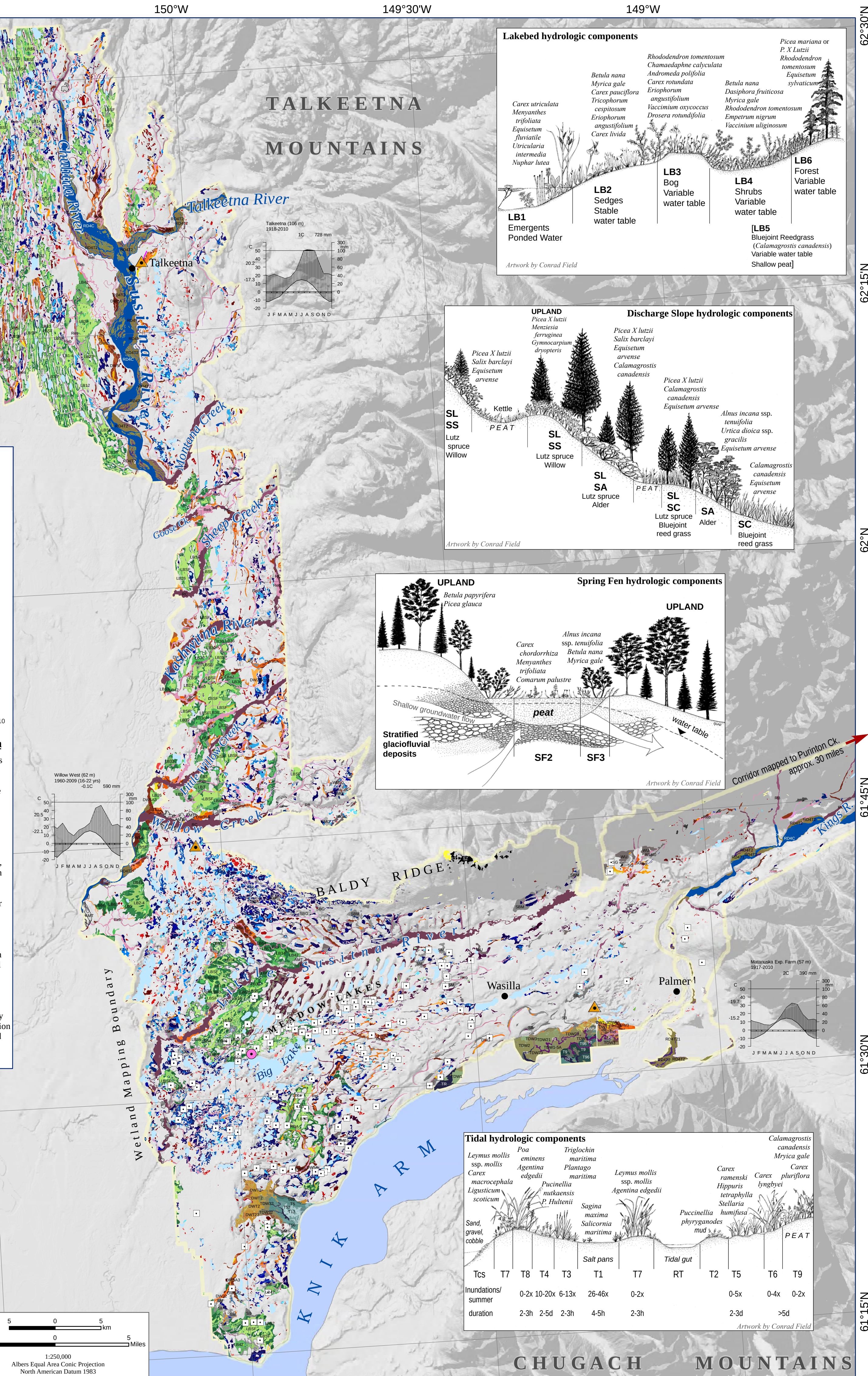
NOTES: Wetlands were mapped using stereo-paired aerial photography at various scales: 1:12,500 around Homer, 1:24,000 on the Kenai Peninsula outside of Homer, and 1:16,000 in the Matanuska-Susitna Valley. Approximately 10-20% of wetland polygons have been visited. Wetlands on this map are displayed at a scale of 1:175,000 & 1:250,000 to convey a general sense of their relative abundance and relationship to physiography. Visit coastalwetlands.info to view more information, including metadata, and to download a .pdf file of this map, or other mapping files viewable in either ArcGIS or GoogleEarth. Numbered insets on the Kenai Peninsula Map show simulated 3D models of representative glacial landscapes corresponding to areas outlined in blue.

Data Sources: Climate data used to construct climate diagrams: Utah Climate Center, Utah State University: <http://climate.ucsf.usu.edu/products/data.php> Digital Elevation Model used in shaded relief maps: Alaska Geospatial Data Clearinghouse, US Geological Survey: http://agdc.usgs.gov/data/usgs/to_geo.html LIDAR used in 3D landscape diagrams: Kenai Watershed Forum, Soldotna Alaska. Precipitation contours: PRISM Climate Group, Oregon State University, <http://prism.oregonstate.edu> Map created 4 October 2011.

LITERATURE: NO Munia and SR Hare (2002) The Pacific Decadal Oscillation. *Journal of Oceanography* 35:44. Rogers, D. and J.L. Silvey, 1996. Applied River Morphology. Wetland Hydrology Books, Pagosa Springs, Colorado, USA. 325 pp. Vince, S.W. and A. Snow, 1984. Plant zonation in an Alaskan salt marsh: I. Distribution, abundance and environmental factors. *Journal of Ecology* 72: 651-667.

"Cook Inlet Wetland Classification". Michael Grice, Kenai Watershed Forum, University of Minnesota Conservation Biology Program. grice01@umn.edu 25 February 2014

MATANUSKA-SUSITNA VALLEY



MAPPING COMPONENT DESCRIPTIONS

RIVERINE COMPONENTS
Rivers and streams and their associated valley bottoms
Based on **Rosen's (1996) morphological classification**
R REACHES: slightly entrenched, stable, pool-dominated reaches within relict channels.

- Rea** Stream surface not discernable on 1:25,000 B&W aerial photography
- Reb** Bank-full due to beaver dam, roads, logging debris or natural obstruction
- Rel** Linear, sinuosity less than 1.2
- Res** Sinuous, sinuosity greater than 1.2
- Rib** Islands and bars
- RI** Tidally influenced reach
- RAA** Cascade or waterfall
- RA** High gradient (greater than 4%) riffle-dominated reach
- RB** High gradient (2-4%) riffle-dominated reach with scour pools
- RE** Reaches with cut banks, point bars, and well-developed floodplains

D REACHES: braided channels on glacial deposits; D3 bed materials dominated by cobbles, D4 dominated by gravel

- D3C** Channel of D3 reach
- RD3C** Channel of D4 reach
- RD4F1** Open water in D4 floodplain
- RD4F2** Water table at or near surface in D4 floodplain, dominated by sedges
- RD4F3** Variable water table in D4 floodplain, dominated by shrubs
- RD4F4** Highly variable water table in D4 floodplain, forested
- RD4SC** Side channel of D4 reach
- RD4T1** Lower terrace of D4 reach
- RD4T2** Upper terrace of D4 reach
- RDA** Braided reaches on peat

DISCHARGE SLOPE COMPONENTS
Mineral soil wetlands at slope breaks. Classified by plant dominants

- SA** Alder (*Alnus* Mill. spp.)
- SB** Birch (*Betula* L. spp.)
- SC** Bluejoint reedgrass (*Calamagrostis canadensis* Michx. Beauv.)
- SG** White spruce (*Picea glauca* (Mill.) B.S.P.)
- SL** Lutz spruce (*Picea X latzii* Latz)
- SM** Black spruce (*Picea mariana* (Mill.) B.S.P., Sterns & Pogg.)
- SP** Sitka spruce (*Picea sitchensis* (Bang.) Carr.) only mapped in Seward
- SS** Willow (*Salix* L. spp.)
- SZ** High elevation meadow, only on Baldy Ridge above Wasilla

TIDAL COMPONENTS
Influenced by at least the annual tidal cycle. Following zones defined by Vince & Snow (1984)

- T0** Bare mud
- TL** Saltpans
- T1** Glasswort (*Salicornia maritima* Wolff & Jefferson) & pearlwort (*Sagina maxima* Gray)
- T2** "Outer Mudflats zone 1" inundated 26-dex / summer creeping alkaligrass (*Puccinellia phragmites* (Trin.) Scribn. & Mer.)
- T3** "Inner Mudflats zone 5" inundated 6-13x / summer Goosewing (*Pinguicula maritima* L.) & seaside arrowgrass (*Triglochin maritima* L.)
- T4** "Outer Mudflats zone 2" inundated 10-20x / summer Alkaligrass (*Puccinellia monardae* (L.) Presl) Fern. & Wadsworth & P. Hultine Swallen)
- T5** "Outer Sedge Marsh" inundated 0-5x / summer Ramenski's sedge (*Carex ramenskii* Komarov)
- T6** "Inner Sedge Marsh" inundated 0-4x / summer Lyngby's sedge (*Carex lyngbyei* Hornem.)
- T7** Beachyrie (*Leymus mollis* (Trin.) Pilger ssp. *mollis*) plant community on storm berms
- T8** "Riverbank Levee" & "Inner Mudflats" inundated 0-2 & 8-13x / summer Pacific silverweed (*Argentina egedii* (Woronk.) Rydb.) & largeflower sparganium (*Potamogeton amplifolius* (L.) Presl)
- T9** "Inner sedge marsh" inundated 0-2x / summer many flower sedge (*Carex plantaginifolia* Hornem.)
- TL** Lagoon
- TR** Complex of components, often along tidal guts
- Tcs** Barren sand, gravel, cobbles & boulders, at the storm line below bluffs

SPRING FEN COMPONENTS
Peatlands in ice-block depressions not connected by wetlands or surface water to navigable water

- SF1** Pondered water
- SF2** Water table at or near the surface, usually sedge-dominated
- SF3** Variable water table, usually shrub-dominated
- SF4** Highly variable water table, usually forested

VERY LARGE DUNE TROUGH COMPONENTS
Peatlands in low-lying areas between the very large dune features found only in the Meadow Lakes area of the Matanuska-Susitna Valley

- RT1** Pondered water
- RT2** Water table at or near the surface, usually sedge-dominated
- RT3** Variable water table, usually shrub-dominated
- RT4** Highly variable water table, usually forested

HEADWATER FEN COMPONENTS
High elevation peatlands at the headwaters of first-order streams

- H1** Pondered water
- H2** Water table at or near the surface, usually sedge-dominated
- H3** Variable water table, usually shrub-dominated
- H4** Highly variable water table, usually forested

