

**Table 3.** Legend for Toolik Lake environmental variables.<sup>1</sup>  
(Revised, L. Druckenmiller 2014)

<p><b><u>Landform (code)</u></b></p> <p>1 Glaciofluvial and other fluvial terraces  2 Floodplains  3 Talus slope  4 Colluvial basin  5 Drained lakes and flat lake margins  6 Lake or pond  7 Hills (including kames and moraines)  8 Disturbed</p> <p><b><u>Surficial Geology (code)</u></b></p> <p>1 Glacial till  2 Glaciofluvial deposit  3 Active alluvium  4 Stabilized alluvium  5 Stream  6 Undifferentiated hill slope colluvium  7 Basin colluvium and organic deposits  8 Drained lake or lacustrine deposits  9 Lake or pond  10 Roads and gravel pads</p> <p><b><u>Glacial Geology (code)</u></b></p> <p>1 Itkillik I till  2 Itkillik II till  3 Itkillik I outwash  4 Itkillik II outwash  5 Bedrock</p> <p><b><u>Surficial Geomorphology (code)</u></b></p> <p>1 Frost scars  2 Wetland hummocks  3 Turf hummocks  4 Gelifluction features  5 Strangmoor or aligned hummocks  6 High centered polygons or flat centered polygons  7 Sorted and non-sorted stripes  8 Palsas  9 Thermokarst pits  10 Featureless or with &lt; 20% frost scars</p>	<p><b><u>Surficial Geomorphology (code)-continued</u></b></p> <p>11 Well-developed hillslope water tracks and small streams &gt; 50 cm deep  12 Poorly developed hillslope water tracks, &lt; 50 cm deep  13 Gently rolling or irregular microrelief  14 Stoney surface  15 Lakes and ponds  16 Disturbed  17 Blockfield</p> <p><b><u>Microsite (code)</u></b></p> <p>1 Frost-scar element  2 Inter-frost scar element  3 Strang or hummock  4 Flark or interstrang area  5 Polygon center  6 Polygon trough  7 Stripe element  8 Inter-stripe element  9 Animal den  10 Blockfield</p> <p><b><u>Topographic Position (code)</u></b></p> <p>1 Hill crest or shoulder  2 Side slope  3 Footslope or toeslope  4 Flat  5 Drainage channel  6 Depression  7 Lake or pond</p> <p><b><u>Estimated Snow Duration (scalar)</u></b></p> <p>1.0 Snow free all year  2.0 Snow free most of winter; some snow cover persists after storm but is blown free soon afterward  3.0 Snow free prior to melt out but with snow most of winter  4.0 Snow free immediately after melt out  5.0 Snow bank persists 1-2 weeks after melt out  6.0 Snow bank persists 3-4 weeks after melt out  7.0 Snow bank persists 4-8 weeks after melt out  8.0 Snow bank persists 8-12 weeks after melt out  9.0 Very short snow free period  10.0 Deep snow all year</p>
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**Table 3 (continued)**

<p><b><u>Exposure (scalar)</u></b></p> <p>1.0 Protected from winds 2.0 Moderate exposure to winds 3.0 Exposed to winds 4.0 Very exposed to winds</p> <p><b><u>Site Moisture</u></b> <b><u>(modified from Komárková 1983)</u></b> <b><u>(scalar)</u></b></p> <p>1.0 Extremely xeric - almost no moisture; no plant growth 2.0 Very xeric - very little moisture; dry sand dunes 3.0 Xeric - little moisture; stabilized sand dunes, dry ridge tops 4.0 Subxeric - noticeable moisture; well-drained slopes, ridges 5.0 Subxeric to mesic - very noticeable moisture; flat to gently sloping 6.0 Mesic-moderate moisture; flat or shallow depressions 7.0 Mesic to subhygric - considerable moisture; depressions 8.0 Subhygric - very considerable moisture; saturated but with &lt;5 % standing water &lt;10 cm deep 9.0 Hygric - much moisture; up to 100% of surface under water 10 to 50 cm deep; lake margins, shallow ponds, streams 10.0 Hydric - very much moisture; 100% of surface under water 50 to 150 cm deep; lakes, streams</p> <p><b><u>Disturbance-Animal and Human (scalar)</u></b></p> <p>0.0 No sign present 1.0 Some sign present; no disturbance 2.0 Minor disturbance or extensive sign 3.0 Moderate disturbance; small dens or light grazing 4.0 Major disturbance; multiple dens or noticeable trampling 5.0 Very major disturbance; very extensive tunneling or large pit</p>	<p><b><u>Stability (scalar)</u></b></p> <p>1.0 Stable 2.0 Subject to occasional disturbance 3.0 Subject to prolonged but slow disturbance such as solifluction 4.0 Annually disturbed 5.0 Disturbed more than once annually</p> <p><b><u>Soil Units (code)</u></b></p> <p>1 Pergelic Cryorthent, acid 2 Pergelic Cryohemist, euic 3 Pergelic Cryosaprist, euic 4 Lithic Pergelic Cryosaprist 5 Pergelic Cryofibrist, euic 6 Histic Pergelic Cryaquept, acid 7 Histic Pergelic Cryaquept, nonacid 8 Pergelic Cryaquept, acid 9 Pergelic Cryaquept, nonacid 10 Pergelic Cryochrept 11 Pergelic Cryumbrept 12 Ruptic-Lithic Cryumbrept 13 Pergelic Cryaquoll 14 Histic Pergelic Cryaquoll 15 Pergelic Cryoboroll</p> <p><b><u>Soil Moisture (from Komárková 1983) (scalar)</u></b></p> <p>1.0 Very dry - very little moisture; soil does not stick together 2.0 Dry - little moisture; soil somewhat sticks together 3.0 Damp - noticeable moisture; soil sticks together but crumbles 4.0 Damp to moist - very noticeable moisture; soil clumps 5.0 Moist - moderate moisture; soil binds but can be broken apart 6.0 Moist to wet - considerable moisture; soil binds and sticks to fingers 7.0 Wet - very considerable moisture; drops of water can be squeezed out of soil 8.0 Very wet - much moisture can be squeezed out of soil 9.0 Saturated - very much moisture; water drips out of soil 10.0 Very saturated - extreme moisture; soil is more liquid than solid</p>
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<sup>1</sup>Walker D. A. and N. Barry. 1991. Toolik Lake permanent vegetation plots: site factors, soil physical and chemical properties, plant species cover, photographs, and soil descriptions. Data Report, Department of Energy R4D Program, Institute of Arctic and Alpine Research, University of Colorado, Boulder, CO, USA.