

	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
Subclass Limitations	No significant limitations in use for crops	Moderate limitations that restrict the range of crops or require special conservation practices	Moderate severe limitations that restrict the range of crops or require special conservation practices	Severe limitations that restrict the range of crops or require special conservation practices or both	Very severe limitations that restrict soil capability to produce perennial forage crops, and improvement practices are feasible	Soils are capable only of producing perennial forage crops, and improvement practices are not feasible	No capability for arable culture or permanent pasture
Climate (C)	All Ecodistricts ¹ within ARDA boundary not explicitly listed under 2C and 3C	Ecodistricts: 664, 666, 668, 670, 671, 672, 674, 675, 676, 677, 714, 715, 716	Ecodistricts: 356, 357, 358, 359, 363, 366, 663, 665	None within ARDA boundary			
Consolidated Bedrock (R)				50-100 cm	20-50 cm	< 20 cm	Surface bedrock Fragmental over bedrock
Moisture limitation² (M)		Stratified loams Moderate moisture holding capacity	Loamy Sands Low moisture holding capacity	Sands Very low moisture holding capacity	Skeletal sands Very severe moisture deficiency	Stabilized sand dunes	Active sand dunes
Topography³ (T)	x, a, b (0-2%)	c (>2-5%)	d (>5-9%)	e (>9-15%)	f (>15-30%)	g (>30-45%) Eroded slope complex	h (>45-70%) i (>70-100%) j (>100%)
Structure and/or Permeability (D)	Granular clay	Massive clay or till soils ⁴ Slow permeability	Solonetzic intergrades Very slow permeability	Black solonetz Extremely slow permeability			
Salinity⁵ (N) a. 00-60cm depth b. 60-120cm depth	NONE (x) < 2dS/m < 4dS/m	WEAK (x) 2-4 dS/m 4-8 dS/m	MODERATE (s) 4-8 dS/m 8-16 dS/m	STRONG (t) 8-16 dS/m 16-24 dS/m	VERY STRONG (u) ⁶ 16-24 dS/m > 24 dS/m		Salt Flats
Inundation⁷ (I)	No overflow during growing season	Occasional overflow (1 in 10 years)	Frequent overflow (1 in 5 years) Some crop damage	Frequent overflow Severe crop damage	Very frequent (1 in 3 years) Grazing > 10 weeks	Very frequent Grazing 5-10 weeks	Land is inundated for most of the season
Excess Water (W)	Well and Imperfectly drained		Loamy to fine textured Gleysols with improved drainage	Coarse textured Gleysols with improved drainage	Poorly drained, no improvements	Very poorly drained	Open water, marsh
Stoniness (P)	Nonstony (x) and Slightly Stony (1)	Moderately Stony (2)	Very Stony ⁸ (3)	Exceedingly Stony (4) ⁹		Excessively Stony (5)	Cobbly Beach Fragmental
Erosion¹⁰ (E)		Moderate erosion (2)	Severe wind or water erosion (3) lowers the basic rating by one class to a minimum rating of Class 6 ¹¹				
Cumulative minor Adverse Characteristics (X)	Use only for soils with no other limitation except for climate. The subclass represents soils with a moderate limitation caused by the cumulative effect of two or more adverse characteristics which are singly not serious enough to affect the rating. Because the limitation is moderate, soils may only be downgraded by one class from their initial climate limitation. Therefore, a soil with a climate limitation of 2c and 2 or more minor adverse characteristics will be rated as 3X. This symbol is always used alone.						