

NOAH	UMD land cover type is mapped into SSiB type	UMD land cover type	2	4	5,6	1	3	7	10	8	9	n/a	12,13	11	n/a
		SiB vegetation type	Broadleaf evergreen	Broadleaf deciduous	Broadleaf and Needleleaf	Needleleaf evergreen	Needleleaf deciduous	Broadleaf trees with groundcover	Groundcover only	Broadleaf shrubs with perennial groundcover	Broadleaf shrubs with bare soil	Dwarf trees and shrubs with groundcover	Bare soil	Cultivations	Glacial
Parameter	Description	Units	1	2	3	4	5	6	7	8	9	10	11	12	13
NROOT	Layer of root depth	none	4	4	4	4	4	4	3	3	3	2	3	3	2
RSMIN	Minimum stomatal resistance	s/m	150	100	125	150	100	70	40	300	400	150	400	40	150
RGL	Parameter used in solar rad term of canopy resistance function	W/m2	30	30	30	30	30	65	100	100	100	100	100	100	100
HS	Parameter used in vapor pressure deficit term (RCQ) of canopy resistance function	none?	41.69	54.53	51.93	47.35	47.35	54.53	36.35	42	42	42	42	36.35	42
SNUP	Threshold snow depth that implies 100% snow cover	H2O m	0.04	0.04	0.04	0.04	0.04	0.04	0.02	0.02	0.02	0.02	0.013	0.02	0.013
Z0	Roughness length	m	2.653	0.826	0.563	1.089	0.854	0.856	0.035	0.238	0.065	0.076	0.011	0.035	0.011
XLAI	Leaf Area Index	none	5	5	5	5	5	5	5	5	5	5	5	5	5

Canopy Resistance : $RC = RSMIN/(XLAI * RCS * RCT * RCQ * RCSOIL)$

$RCS = \text{MAX of } (FF + RSMIN/RSMAX) / (1.0 + FF) \text{ or } 0.0001 \text{ where } FF = 0.55 * 2.0 * \text{SOLAR} / (RGL * XLAI)$

$RCT = \text{MAX of } 1.0 - 0.0016 * ((TOPT - SFCTMP)^2 * 2.0) \text{ or } 0.0001 \text{ where } TOPT = 298.0 \text{ K and SFCTMP is surface temperature [K]}$

$RCQ = \text{MAX of } 1.0 / (1.0 + HS * (Q2SAT - Q2)) \text{ or } 0.01 \text{ where Q2SAT and Q2 are mixing ratios [kg/kg]}$

RCSOIL is weighted root distribution