

Appendix 3-A

Symbols and Acronyms

Revised September 2026

If you require assistance accessing this information or require it in an alternative format, contact the Michigan Department of Transportation's (MDOT) Americans with disabilities Act (ADA) coordinator at Michigan.gov/MDOT-ADA.

Symbols

Symbol	Definitions	Units
A	Drainage Area	acres or sft
A	Surface Area of Water	sft
C	Runoff Coefficient	-
CN	SCS - Runoff Curve Number	-
D	Depth of Water	ft
ET	Evapotranspiration	in/mo
GW I	Groundwater Inflow	cf/d
GWO	Groundwater Outflow	cf/d
i	Rainfall Intensity	in/hr
I	Inflow per Unit Time	cfs/s
I	Heat Index	-
K	Flow Type Coefficient	-
K	Hydraulic Conductivity or Permeability	ft/d
L _i	Length	ft
O	Outflow per Unit Time	cfs/s
P	Accumulated Rainfall, Total Precipitation	in or cf
PET	Potential Evapotranspiration	in/mo
Q	Rate of Runoff	cfs
q	Volumetric Groundwater Flow Rate, Discharge	cfs/ft
R	Residence Time	days
S	Slope of Flow Path	%
S	Storage	cft
SRO	Surface Runoff	in
SWI	Surface Water Inflow	cft/d

Symbol	Definitions	Units
SWO	Surface Water Outflow	cft/d
T	Time Period	days
t	Time	s
T _a	Mean Monthly Air Temperature	degrees C
T _c	Time of Concentration	hr, min
T _i	Travel time	hr, min
V	Velocity	fps
V _i	Velocity for Each Flow Path	fps
V	Volume of Water in Wetland	cft

Acronyms

AASHTO	American Association of State Highway and Transportation Officials
AEP	Annual Exceedance Probability
ARI	Annual Recurrence Interval
CSV	Comma-Separated Values
DEM	Digital Elevation Model
FHWA	Federal Highway Administration
HEC	Hydraulic Engineering Circular
HUC	Hydrologic Unit Code
EGLE	Michigan Department of Environment, Great Lakes, and Energy
IDF	Intensity Duration Frequency
LiDAR	Light Detection and Ranging
MCL	Michigan Compiled Laws
MDOT	Michigan Department of Transportation
MSE3	Midwest and Southeast United States Type 3
MSE4	Midwest and Southeast United States Type 4
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NREPA	Natural Resources Environmental Protection Act, Michigan Act 451, Public Acts of 1994, as amended
ORD	OpenRoads Designer
PRF	Peak Rate Factor
ROW	Right-of-Way
TR	Township and Range
USGS	United States Geological Survey