

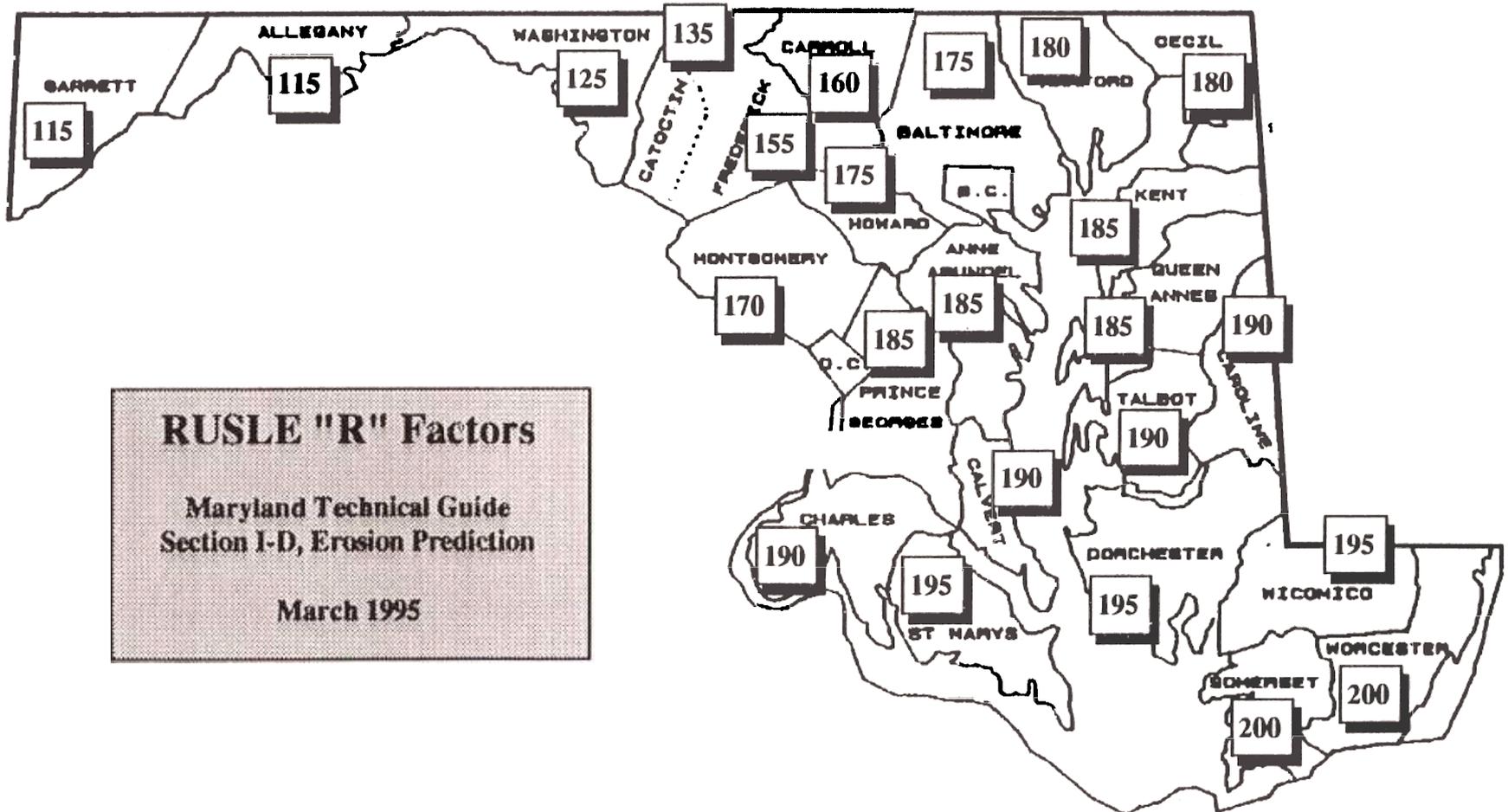
Comparison of USLE and RUSLE

Factor	USLE	RUSLE	Impact
R	Based on long-term average rainfall conditions for specific geographic areas in the U.S.	Same criteria as USLE with some modifications for Northwest. Based on more data and weather stations.	R factors in Maryland decreased in most locations.
K	Based on soil texture, organic matter content, permeability, and other factors inherent to soil type.	Same as USLE, but adjusted for seasonal changes such as freezing and thawing or soil consolidation.	K factors in Maryland are seasonally adjusted within each climatic zone. In many cases the seasonally adjusted K for use in RUSLE is lower than the unadjusted K.
LS	Based on length and steepness of slope regardless of land use.	Refines USLE by assigning LS values according to land use.	Values vary slightly from USLE with some variance between land uses.
C	Based on cropping sequence, surface residue cover, surface roughness, and canopy cover which are weighted by the percentage of erosive rainfall during six crop stages. Lumps these factors into a table of soil loss ratios by crop and tillage operations.	Uses independent subfactors for prior land use, canopy cover, surface cover, surface roughness, and soil moisture to calculate C factor. Refines USLE by dividing each year into 15 day intervals, calculating a soil loss ratio for each period. Recalculates a soil loss ratio each time a tillage operation changes one of the subfactors.	RUSLE provides estimates of changes as they occur throughout the year, especially relating to surface and near surface residue and effects of climate on residue decomposition. Final C factor may be higher or lower than that obtained through USLE.
P	Based on installation of practices that slow runoff and thus reduce soil movement. P factors vary according to slope ranges with some distinction for ridge heights.	P factor values are based on soil hydrologic groups, slope, row grade ridge height, cover-management condition, and the 10 year single storm index values.	RUSLE estimates of P factor may be higher or lower than estimates obtained through USLE.

Maryland

RUSLE

Rainfall-Runoff Erosivity Factor



RUSLE R Factors

RAINFALL FACTOR VALUES FOR: MARYLAND

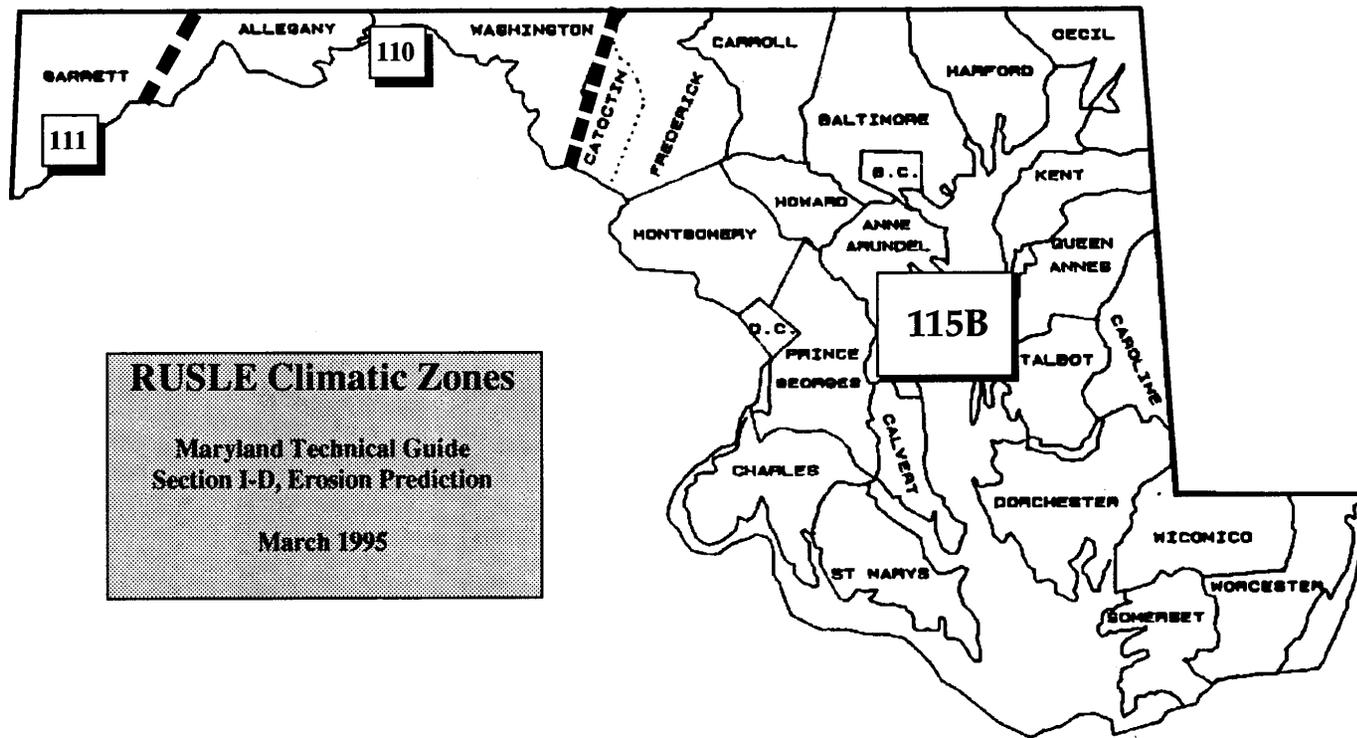
ALLEGANY	115
ANNE ARUNDEL	185
BALTIMORE	175
CALVERT	190
CAROLINE	190
CARROLL	160
CECIL	180
CHARLES	190
DORCHESTER	195
FREDERICK E. ¹	155
FREDERICK W.	135
GARRETT	115
HARFORD	180
HOWARD	175
KENT	185
MONTGOMERY	170
PRINCE GEORGE'S	185
QUEEN ANNE'S	185
ST. MARY'S	195
SOMERSET	200
TALBOT	190
WASHINGTON	125
WICOMICO	195
WORCESTER	200

¹Frederick County is divided into two rainfall regions split by Catoctin Mountains.

Maryland

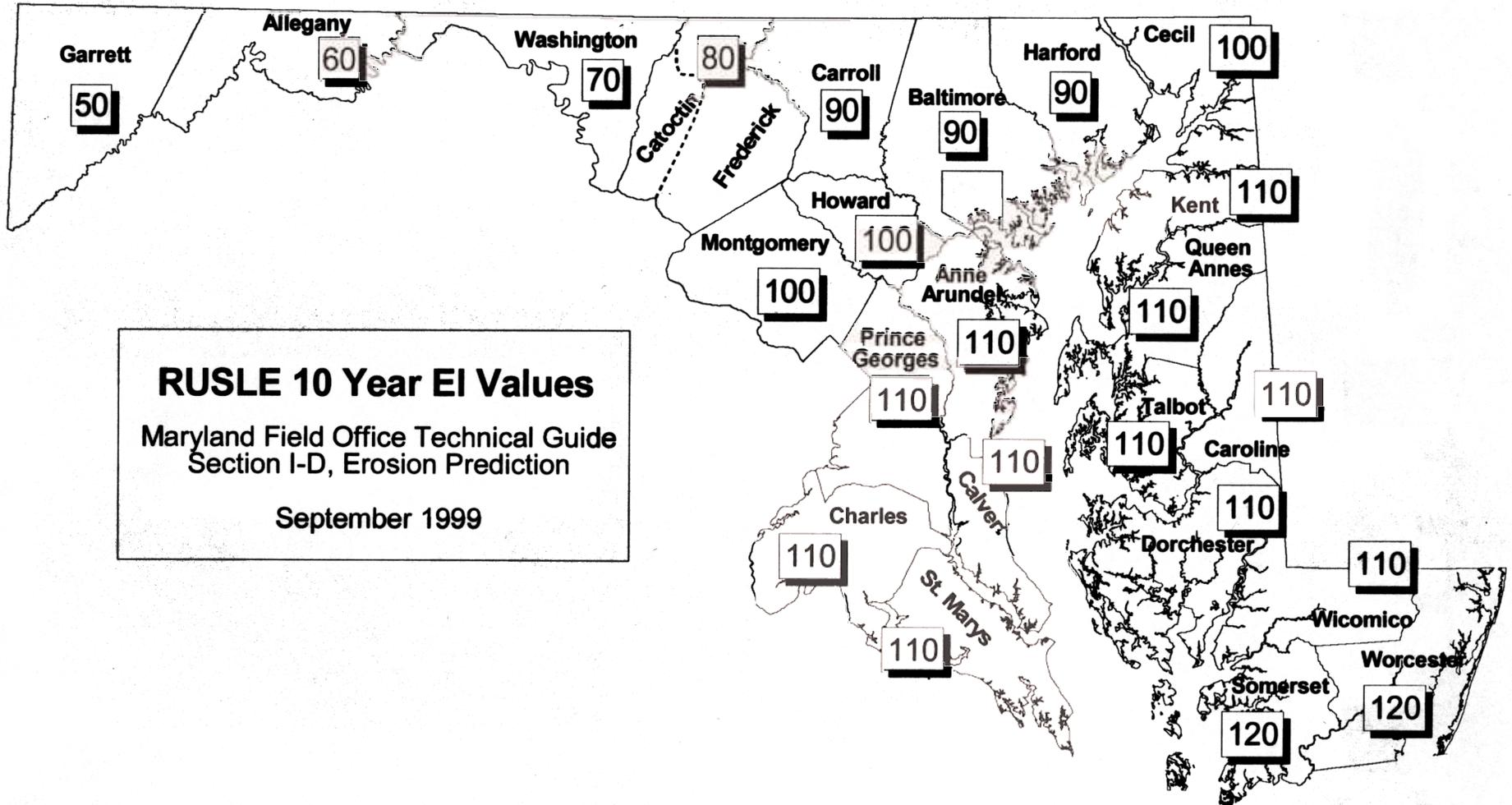
RUSLE

Climatic Zones for Cropping (C) & Soil Erodibility (K) Factors



Maryland

RUSLE 10 Year Frequency Single Storm Erosion Index



**TEN-YEAR FREQUENCY SINGLE-STORM EROSION INDEX VALUES
FOR MARYLAND**

ALLEGANY	60
ANNE ARUNDEL	110
BALTIMORE	90
CALVERT	110
CAROLINE	110
CARROLL	90
CECIL	100
CHARLES	110
DORCHESTER	110
FREDERICK	80
GARRETT	50
HARFORD	90
HOWARD	100
KENT	110
MONTGOMERY	100
PRINCE GEORGE'S	110
QUEEN ANNE'S	110
ST. MARY'S	110
SOMERSET	120
TALBOT	110
WASHINGTON	70
WICOMICO	110
WORCESTER	120

RUSLE 15 Day EI Distribution

EI as a percentage of average annual value by 15 day period RUSLE 15 Day EI Distribution

Period	CLIMATIC ZONE		
	110	111	115
1	0	0	0
2	1	1	1
3	3	2	2
4	5	3	3
5	7	4	4
6	9	5	5
7	12	6	6
8	15	8	8
9	18	11	10
10	21	15	14
11	25	20	19
12	29	28	26
13	36	41	34
14	45	54	45
15	56	65	56
16	68	74	66
17	77	82	76
18	83	87	82
19	88	92	86
20	91	94	90
21	93	96	93
22	95	97	95
23	97	98	97
24	99	99	99