

GSA Supple - # 75-21
mentary Material

11/14/4

Costa 1

SEDIMENT YIELDS FROM PREDOMINANTLY AGRICULTURAL WATERSHEDS

Stream and location	Drainage area (km ²)	Metric tons/km ² /year sediment yield	Reference
Watts Branch Rockville, Md.	9.6	180.7	Wolman, 1964
Seneca Creek Dawsonville, Md.	261.6	112.1	do.
Northwest Branch Anacostia River near Colesville, Md.	55.2	164.6	do.
Monocacy River Frederick, Md.	2,116.0	114.5	do.
Georges Creek Franklin, Md.	187.5	72.5	do.
Conococheaque Creek Fairview, Md.	1,279.5	76.0	do.
Gunpowder Falls Prettyboy Reservoir Hereford, Md.	207.2 (1933- 1943) 207.3 (1943- 1961)	319.8 175.1	Holeman, 1965
Gunpowder Falls Lock Raven Dam Towson, Md.	777.0 (1914- 1943) 777.0 (1943- 1961)	283.0 81.6	do.
East Mahantango Creek Damatia, Pa.	419.6	80.6	Williams and George, 1968
Yellow Breeches Creek Camp Hill, Pa.	559.4	70.1	do.
Swatara Creek Harper Tavern, Pa.	872.8	77.1	do.
West Conewago Creek Manchester, Pa.	1,320.9	70.1	do.
Conestoga Creek Lancaster, Pa.	839.2	70.1	do.
Tridelphia Lake Ashton, Md.	207.5	176.9	do.
Lake Issaquenna Clemson, S. C.	36.3 (1939- 1941) 36.3 (1941- 1949)	840.6 402.9	Gottschalk and Jones, 1955 USDA Yearbook

SEDIMENT YIELDS FROM PREDOMINANTLY FORESTED WATERSHEDS

Stream and location	Drainage area (km ²)	Metric tons/km ² /year sediment yield	Percent forested	Reference
Driftwood Branch Sterling Run, Pa.	704.5	17.9	96	Williams and George, 1968
Bush Kill Shoemaker, Pa.	--	11.6	90	do.
Abram Creek Oakmont, W. Va.	122.5	7.4	71	Wark and Keller, 1963
S. Fork of S. Branch Potomac River Moorefield, W. Va.	733.0	11.6	72	do.
Cacapon River Great Cacapon, W. Va.	1,753.4	22.4	73	do.
Passage Creek Buckton, Va.	225.3	18.9	79	do.
Penn Creek Penns Creek, Va.	779.6	13.0	75	Williams and George, 1968
Juniata River Huntingdon, Pa.	2,113.4	15.4	71	do.
Helton Branch, Ky.	2.2	5.3	91	Collier and others, 1964
Broad Ford, Md.	19.2	3.9	100	Wolman, 1967
Fishing Creek, Md.	18.9	1.8	100	do.
Pond Branch Baisman Run, Md.	.39	1.1	100	Cleaves and others, 1970
Walnut Cove near Walnut Cove, N. C.	1,004.9	9.2	65	Task Committee, ASCE, 1970

FLOODING RECURRENCE INTERVALS FOR MOST EXTENSIVE
ALLUVIAL FLAT BORDERING PIEDMONT STREAMS (LESS THAN 26 KM²)

Stream	Drainage area (km ²)	Recurrence interval (years)	Reference
Shetley Creek near Norcross, Ga.	2.54	5.2	Kilpatrick and Barnes, 1964
McClelland Creek near Statesville, N. C.	4.14	7.5	do.
Slade Run near Glyndon, Md.	5.41	3.3	Costa, this report
Pew Creek near Lawrenceville, Ga.	5.78	2.0	Kilpatrick and Barnes, 1964
Carroll Creek near Colletsville, N. C.	7.15	10.0	do.
Long Creek near Kittrell, N. C.	8.44	1.8	do.
Watts Branch, Md.	11.14	2.2	Leopold and others, 1964
Gwynns Falls at Owings Mills, Md.	12.69	5.0	Costa, this report
Dial Creek near Bahama, N. C.	12.69	5.3	Kilpatrick and Barnes, 1964
Sofkahatchee Creek near Wetumpka, Ala.	13.21	2.9	do.
$\bar{X}_1 = 4.5 \text{ years}$ $S_1 = 2.5 \text{ years}$			

FLOODING RECURRENCE INTERVALS FOR MOST EXTENSIVE
ALLUVIAL FLAT BORDERING PIEDMONT STREAMS (MORE THAN 26 KM²)

Stream	Drainage area (km ²)	Recurrence interval (years)	Reference
Big Knob Creek near Fallston, N. C.	42.2	2.2	Kilpatrick and Barnes, 1964
Forebrush Creek near Yadkinville, N. C.	56.2	2.9	do.
Murder Creek near Monticello, Ga.	62.2	1.55	do.
Yellow River near Lawrenceville, Ga.	68.6	1.05	do.
Yadkin River at Patterson, N. C.	74.6	13.7	do.
Moon Creek near Yancyville, N. C.	77.4	1.01	do.
Gwynns Falls at Villa Nova, Md.	84.2	2.3	Costa, this report
South Beaverdam Creek near Dewy Rose, Ga.	92.7	2.33	Kilpatrick and Barnes, 1964
Little Gunpowder Falls at Laurel Brook, Md.	93.5	2.79	Costa, this report
Western Run at Western Run, Md.	154.9	2.0	do.
Eno River at Hillsboro, N. C.	172.2	1.1	Kilpatrick and Barnes, 1964
Cove Creek near Lake Lure, N. C.	199.4	4.8	do.
Henry Fork near Henry River, N. C.	207.2	4.5	do.
Reddies River near North Wilkesboro, N. C.	243.2	2.5	do.

Talladega Creek near Talledega, Ala.	254.9	1.82	Kilpatrick and Barnes, 1964
Etowah River near Dawsonville, Ga.	266.8	2.33	do.
South Tyger River near Reidville, S. C.	274.5	6.5	do.
Yellow River near Snellville, Ga.	327.6	1.71	do.
Yellow River near Snellville, Ga.	347.1	3.5	do.
Chattahoochee River near Leaf, Ga.	388.5	2.6	do.
Haw River near Beneja, N. C.	435.1	1.32	do.
Tobesofkee Creek near Macon, Ga.	471.4	2.65	do.
Hillabee Creek near Hackneyville, Ala.	507.6	1.65	do.
Second Broad River at Cliffside, N. C.	546.5	6.0	do.
Little River near Mt. Carmel, S. C.	562.0	1.19	do.
Deep River at Ramseur, N. C.	880.6	1.15	do.
Uwharrie River near Eldorado, N. C.	898.7	2.6	do.
Middle Oconee River near Athens, Ga.	1,030.8	3.0	do.
Stevens Creek near Modoc, S. C.	1,411.6	1.16	do.
South Fork Catawba River at Lowell, N. C.	1,631.7	4.0	do.

$$\bar{X}_2 = 2.9 \text{ years}$$

$$S_2 = 2.4 \text{ years}$$

$$\alpha = 0.05, t = 2.021; t = 2.38, \text{ reject } \bar{X}_1 = \bar{X}_2$$
