UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 30, 1980

ERRATA

Regulatory Guide 1.59, Revision 2, August 1977

"Design Basis Floods for Nuclear Power Plants"

New information that affects the Probable Maximum Flood (PMF) isolines for the Upper Ohio River for drainage areas of 10,000 and 20,000 square miles has been identified. The changes to the isolines affect only a small area in the Upper Ohio River Basin and do not have any significant impact on the Design Basis Flood for existing plants.

As a result of the new information, revised Figures B.6 and B.7 transmitted herewith should be used in future PMF discharge determinations when the simplified methods presented in Appendix B to the Regulatory Guide are being used. In addition, appropriate changes have been made to the PMF data on pages 28 and 30 of Table B.1, which are also transmitted herewith.

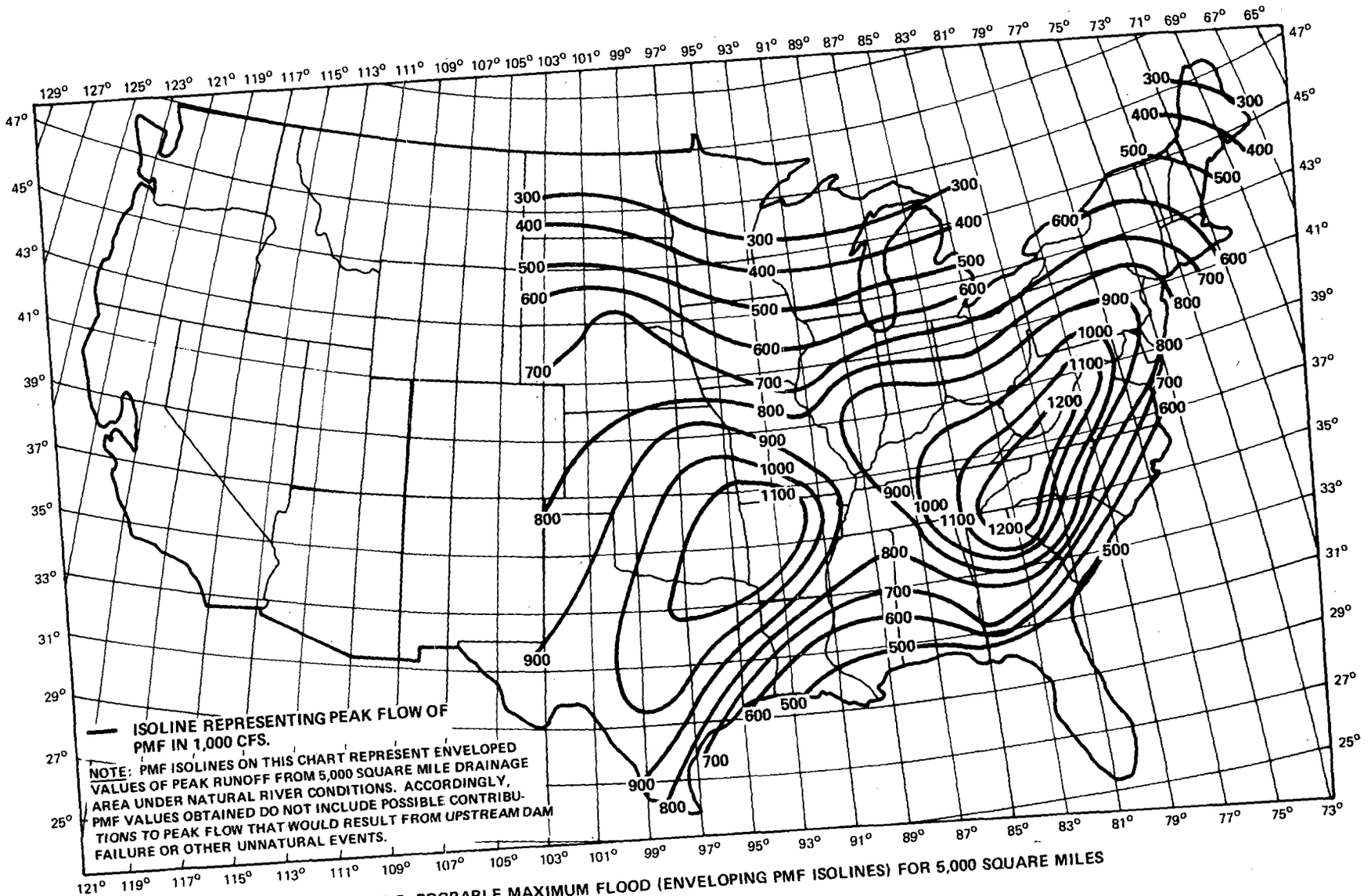

FIGURE B.5 PROBABLE MAXIMUM FLOOD (ENVELOPING PMF ISOLINES) FOR 5,000 SQUARE MILES

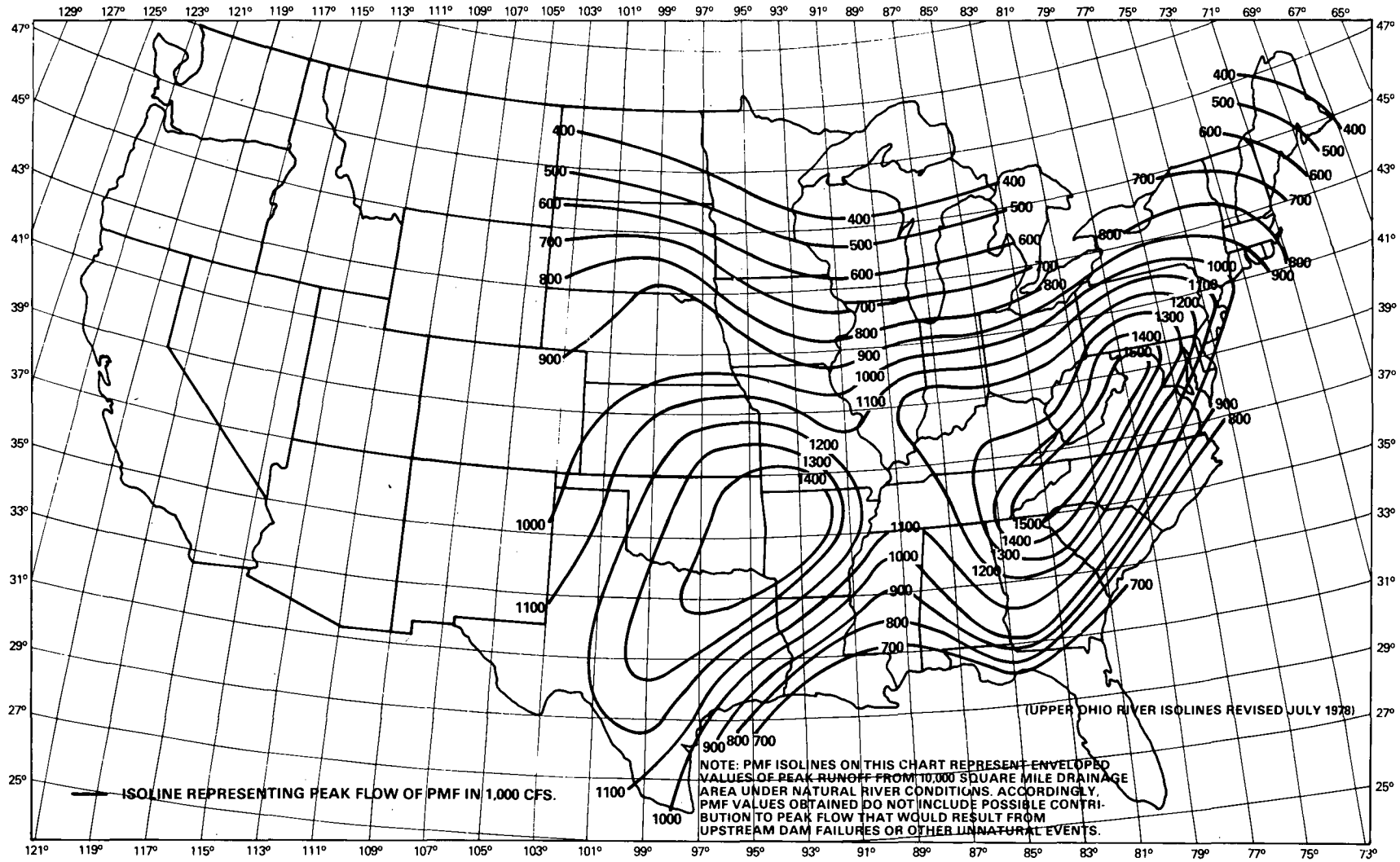

FIGURE B.6 PROBABLE MAXIMUM FLOOD (ENVELOPING PMF ISOLINES) FOR 10,000 SQUARE MILES

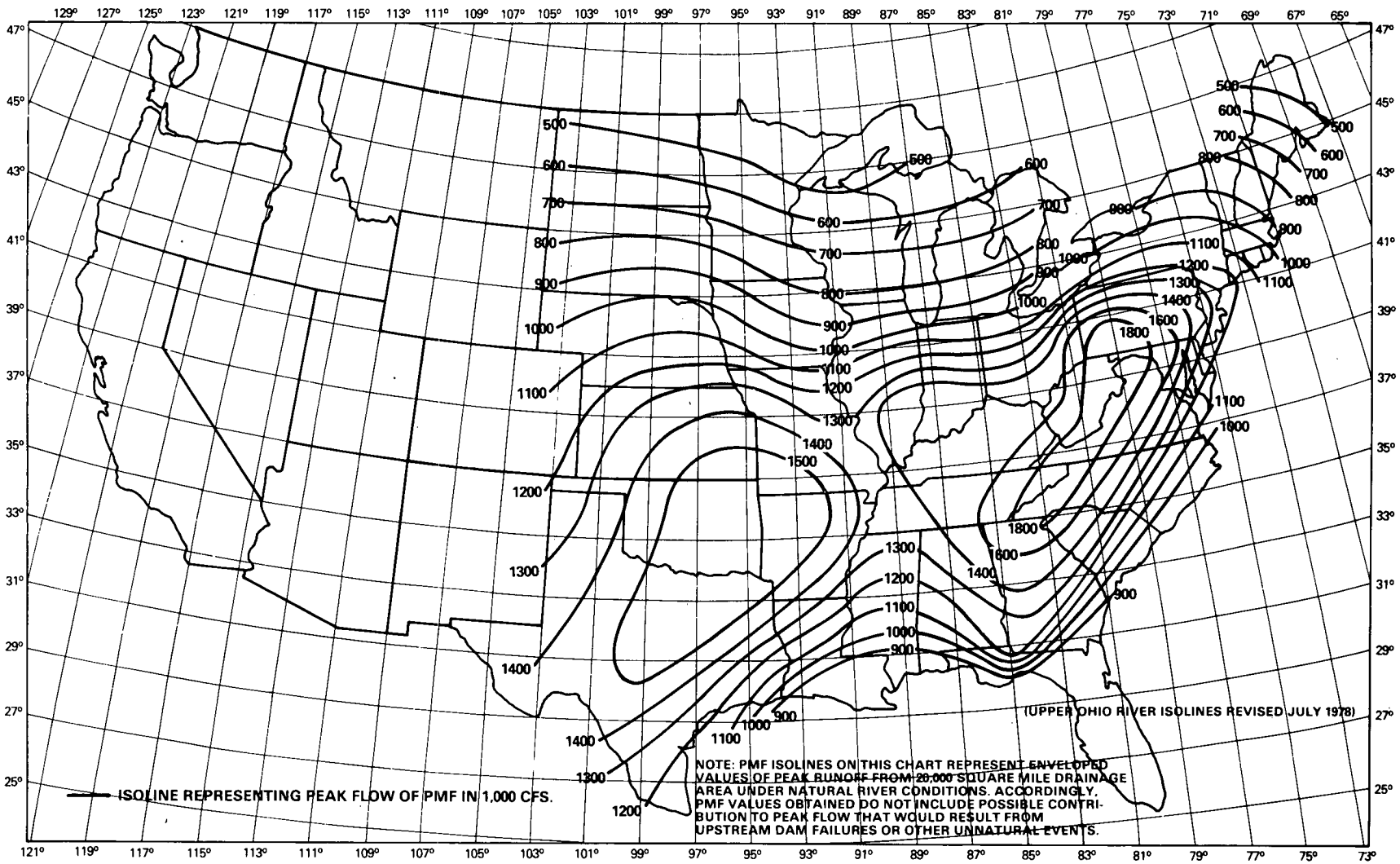

FIGURE B.7 PROBABLE MAXIMUM FLOOD (ENVELOPING PMF ISOLINES) FOR 20,000 SQUARE MILES

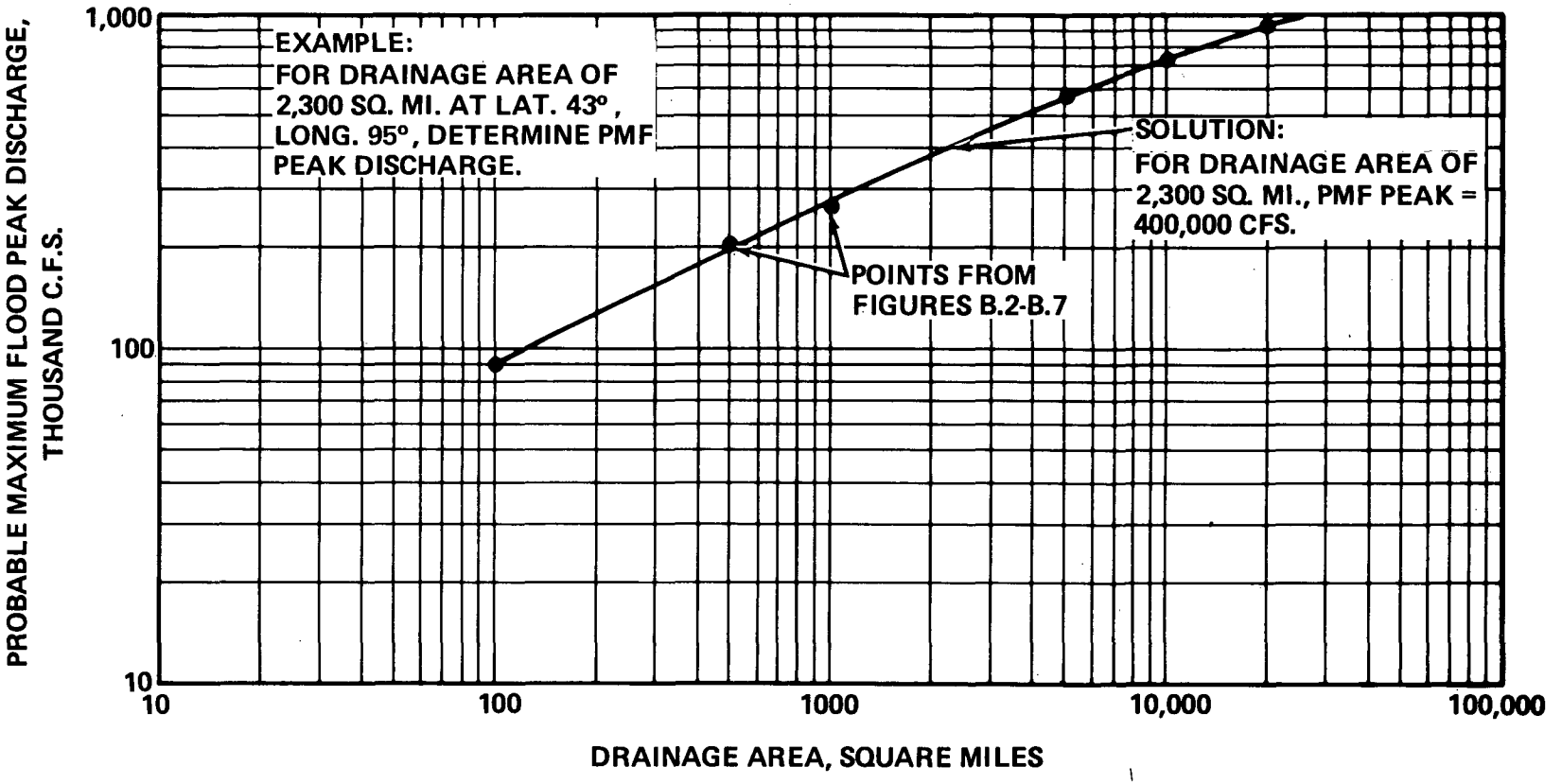

FIGURE B.8 EXAMPLE OF USE OF ENVELOPING ISOLINES

TABLE B.1 (Page 5 of 17)

Project	State	River Basin	Stream	Drainage Area (sq.mi.)	Basin Average (in inches) Prec.	Runoff	PMF Peak Discharge (cfs)
Gainsville	Ala.	Tombigbee	Tombigbee River	7,142	19.6	16.8	702,400
Hartwell	Ga.	Savannah	Savannah River	2,088	24.8	18.8	875,000
Holt	Ala.	Warrior	Warrior River	4,232	22.1	19.2	650,000
Howards Mill	N. C.	Cape Fear	Deep River	626	26.8	24.2	305,000
Jim Woodruff	Fla.	Apalachicola	Apalachicola River	17,150	17.6	12.3	1,133,800
John H. Bankhead	Ala.	Tombigbee	Black Warrior River	3,900	22.3	19.4	670,300
Jones Bluff	Ala.	Alabama	Alabama River	16,300	14.2	11.6	664,000
Lazer Creek	Ga.	Apalachicola	Lazer Creek	1,410	24.6	20.7	303,600
Lookout Shoals	N. C.	Santee	Catawba River	1,450			492,000
Lower Auchumpkee	Ga.	Apalachicola	Flint River	1,970	23.7	19.8	355,600
McGuire	N. C.	Santee	Catawba River	1,770			750,000
Millers Ferry	Ala.	Alabama	Alabama River	20,700	14.7	12.1	844,000
Mountain Island	N. C.	Santee	Catawba River	1,860			362,000
New Hope	N. C.	Cape Fear	New Hope River	1,690	22.0	19.4	511,000
Oconee	S. C.	Savannah	Keowee River	439	26.5	23.5	450,000
Oconee	S. C.	Savannah	Little River	148		26.6	245,000
Okatibbee	Miss.	Pascagoula	Okatibbee Creek	154	33.0	28.4	87,700
Oxford	N. C.	Santee	Catawba River	1,310			479,000
Perkins	N. C.	Pee Dee	Yadkin River	2,473			440,600
Randleman	N. C.	Cape Fear	Deep River	169	28.6	26.0	126,000
Reddies	N. C.	Pee Dee	Reddies River	94	28.0	24.8	174,200
Rhodhiss	N. C.	Santee	Catawba River	1,090			379,000
Shearon Harris	N. C.	Cape Fear	White Oak Creek	79			163,500
Sprewell Bluff	Ga.	Apalachicola	Flint River	1,210	25.8	21.3	318,000
Trotters Shoals	Ga.	Savannah	Savannah River	2,900	24.0	19.1	800,000
Walter F. George	Ga.	Apalachicola	Chattahoochee River	7,460	16.6	15.2	843,000
Warrior	Ala.	Tombigbee	Black Warrior River	5,828	19.5	16.6	554,000
West Point	Ga.	Apalachicola	Chattahoochee River	3,440	21.9	17.4	440,000
W. Kerr Scott	N. C.	Pee Dee	Yadkin River	348	25.6	21.5	318,000
			Great Lakes Region				
Bedford	Ohio	Cuyahoga	Tinkers Creek	91	28.6	25.9	79,000
Bristol	N. Y.	Oswego	Mud Creek	29	29.9	28.1	64,900
Fall Creek	N. Y.	Oswego	Fall Creek	123	17.1	16.1	63,400
Ithaca	N. Y.	Oswego	Six Mile Creek	43	26.9	25.1	77,900
Jamesville	N. Y.	Oswego	Butternut Creek	37	26.0	24.1	35,200
Linden	N. Y.	Niagara	Little Tonawanda Creek	22	30.8	29.0	64,400

TABLE B.1 (Page 6 of 17)

Project	State	River Basin	Stream	Drainage Area (sq.mi.)	Basin Average (in inches) Prec.	Runoff	PMF Peak Discharge (cfs)
Mount Morris	N. Y.	Genesee River	Genesee River	1,077	17.0	14.6	385,000
Onondago	N. Y.	Lake Ontario	Onondago Creek	68	24.2	23.3	61,800
Oran	N. Y.	Oswego	Limestone Creek	47	25.1	23.4	80,790
Portageville	N. Y.	Genesee	Genesee River	983	17.8	15.8	359,000
Quanicassee	Mich.	Saginaw Bay	Saginaw River	6,260			440,000
Quanicassee	Mich.	Saginaw Bay	Tittabawassee River	2,400			270,000
Quanicassee	Mich.	Saginaw Bay	Quanicassee River	70			46,000
Standard Corners	N. Y.	Genesee	Genesee River	265	22.3	20.3	189,900
			Ohio Region				
Alum Creek	Ohio	Ohio	Alum Creek	123	24.6	21.8	110,000
Barkley	Ky.	Ohio	Cumberland River	17,598	22.6	21.5	1,000,000 |*
Barren	Ky.	Ohio	Barren River	940	17.6	16.9	531,000
Beaver Valley	Pa.	Ohio	Ohio River	23,000			1,890,000 |
Beech Fork	W. Va.	Ohio	Twelve Pole Creek	78	26.4	23.5	84,000
Big Blue	Ind.	Ohio	Big Blue River	269	23.5	21.2	161,000
Big Darby	Ohio	Ohio	Big Darby Creek	441	24.1	21.3	294,000
Big Pine	Ind.	Ohio	Big Pine Creek	326	22.4	20.4	174,000
Big Walnut	Ind.	Ohio	Big Walnut Creek	197	24.0	22.0	144,000
Birch	W. Va.	Ohio	Birch River	142	28.4	25.2	102,000
Bluestone	W. Va.	Ohio	New River	4,565		13.8	410,000
Booneville	Ky.	Ohio	So. Fk. Kentucky River	665	23.2	21.0	425,000
Brookville	Ind.	Ohio	Whitewater River	379	24.2	22.1	272,000
Buckhorn	Ky.	Ohio	M. Fk.Kentucky River	408	23.8	21.5	239,000
Burnsville	W. Va.	Ohio	Little Kanawha River	165	24.8	22.3	138,800
Caesar Creek	Ohio	Ohio	Caesar Creek	237	24.1	21.9	230,200
Cagles Mill	Ind.	Ohio	Mill Creek	295	24.6	22.7	159,000
Carr Fork	Ky.	Ohio	No. Fk. Kentucky River	58	27.4	25.0	132,500
Cave Run	Ky.	Ohio	Licking River	826	22.8	20.6	510,000
Center Hill	Tenn.	Ohio	Caney Fork	2,174	22.3	21.8	696,000
Clarence J. Brown	Ohio	Ohio	Buck Creek	82	29.0	26.7	121,000
Claytor	Va.	Ohio	New River	2,382	22.3	18.0	1,109,000
Clifty Creek	Ind.	Ohio	Clifty Creek	145	24.9	23.0	112,900
Dale Hollow	Tenn.	Ohio	Obey River	935	23.8	23.3	435,000
Deer Creek	Ohio	Ohio	Deer Creek	278	22.9	20.1	160,000
Delaware	Ohio	Ohio	Olentangy River	381	22.7	20.4	296,000
Dewey	Ky.	Ohio	Big Sandy River	207	25.0	22.6	75,500

*Lines indicate changes issued in an errata to Revision 2 to this guide.

TABLE B.1 (Page 7 of 17)

Project	State	River Basin	Stream	Drainage Area (sq.mi.)	Basin Average (in inches) Prec.	Runoff	PMF Peak Discharge (cfs)
Dillon	Ohio	Ohio	Licking River	748	19.8	16.3	246,000
Dyes	Ohio	Ohio	Dyes Fork	44	30.7	27.8	49,500
Eagle Creek	Ky.	Ohio	Eagle Creek	292	24.7	22.1	172,800
E. Br. Clarion	Pa.	Ohio	E. Br. Clarion River	72	22.7	18.9	41,500
East Fork	Ohio	Ohio	E. Fk. Little Miami River	342	23.8	21.2	313,200
East Lynn	W. Va.	Ohio	Twelve Pole Creek	133	29.4	26.5	72,000
Fishtrap	Ky.	Ohio	Levisa Fk. Sandy River	395	26.1	23.2	320,000
Grayson	Ky.	Ohio	Little Sandy River	196	27.5	24.7	83,300
Green River	Ky.	Ohio	Green River	682	26.5	23.9	409,000
Helm	Ill.	Ohio	Skillet Fk. Wabash River	210	24.8	22.6	152,800
John W. Flannagan	Va.	Ohio	Pound River	222	27.6	24.9	235,800
J. Percy Priest	Tenn.	Ohio	Stones River	892	25.9	18.8	430,000
Kehoe	Ky.	Ohio	Tygarts Creek	127	26.0	23.4	105,900
Kinzua	Pa.	Ohio	Allegheny River	2,180	16.4	12.8	115,000
Lafayette	Ind.	Ohio	Wildcat Creek	791	20.6	18.5	182,000
Laurel	Ky.	Ohio	Laurel River	282	25.9	20.7	120,000
Leading Creek	W. Va.	Ohio	Leading Creek	146	25.0	22.5	131,000
Lincoln	Ill.	Ohio	Embarras River	915	21.2	19.0	502,000
Logan	Ohio	Ohio	Clear Creek	84	29.5	27.0	78,000
Louisville	Ill.	Ohio	Little Wabash River	661	22.1	19.9	310,000
Mansfield	Ind.	Ohio	Raccoon Creek	216	25.9	23.0	175,800
Martins Fork	Ky.	Ohio	Cumberland River	56	27.9	22.7	61,800
Meigs	Ohio	Ohio	Meigs Creek	72	29.5	26.6	72,100
Meigs	Ohio	Ohio	Meigs Creek	27	32.2	29.3	45,500
Mill Creek	Ohio	Ohio	Mill Creek	181	24.0	21.4	92,000
Mississinewa	Ind.	Ohio	Mississinewa River	809	20.6	18.4	196,000
Michael J. Kirwin	Ohio	Ohio	Mahoning River	80	26.0	20.1	51,800
Monroe	Ind.	Ohio	Salt Creek	441	25.9	25.4	366,000
Muddy Creek	Pa.	Ohio	Muddy Creek	61	22.8	19.6	59,300
Nolin	Ky.	Ohio	Nolin River	703	14.2	13.2	158,000
N. Br. Kokosing	Ohio	Ohio	N. Br. Kokosing River	44	25.4	22.6	50,000
N. Fk. Pound River	Va.	Ohio	N. Fk. Pound River	18	35.3	32.2	51,200
Paint Creek	Ohio	Ohio	Paint Creek	573	21.8	18.8	305,000
Paintsville	Ky.	Ohio	Paint Creek	92	26.3	23.8	77,500
Panthers Creek	W. Va.	Ohio	Panther Creek	24	36.7	33.9	59,800
Patoka	Ind.	Ohio	Patoka River	168	25.6	23.5	292,000
R. D. Bailey	W. Va.	Ohio	Guyandotte River	540	23.1	20.3	349,000
Rough River	Ky.	Ohio	Rough River	454	27.6	25.1	358,000

Project	State	River Basin	Stream	Drainage Area (sq.mi.)	Basin Average (in inches) Prec.	Runoff	PMF Peak Discharge (cfs)
Rowlesburg	W. Va.	Ohio	Cheat River	936	21.2	18.4	331,000
Salamonia	Ind.	Ohio	Salamonia River	553	21.3	19.0	201,000
Stonewall Jackson	W. Va.	Ohio	West Fork River	102	24.2	22.2	85,500
Summersville	W. Va.	Ohio	Gauley River	803	23.8	21.1	412,000
Sutton	W. Va.	Ohio	Elk River	537	20.4	20.4	222,400
Taylorville	Ky.	Ohio	Salt River	353	24.8	22.2	426,000
Tom Jenkins	Ohio	Ohio	Hocking River	33	26.7	25.8	43,000
Union City	Pa.	Ohio	French Creek	222	20.3	17.8	87,500
Utica	Ohio	Ohio	N. Fk. Licking River	112	24.7	22.1	73,700
West Fork	W. Va.	Ohio	W. Fk. Little Kanawha	238	24.4	21.8	156,400
West Fk. Mill Ck.	Ohio	Ohio	Mill Creek	30	31.9	30.0	81,600
Whiteoak	Ohio	Ohio	Whiteoak Creek	214	24.5	21.6	134,000
Wolf Creek	Ky.	Ohio	Cumberland River	5,789	20.6	20.0	996,000
Woodcock	Pa.	Ohio	Woodcock Creek	46	23.5	20.9	37,700
Yatesville	Ky.	Ohio	Blaine Creek	208	25.2	22.6	118,000
Youghiogheny	Pa.	Ohio	Youghiogheny River	434		25.4	151,000
Maysville	Ohio	Ohio	Ohio River	70,130	9.8	8.4	2,590,000|*
			Tennessee Region				
Bellefonte	Ala.	Ohio	Tennessee River	23,340			1,160,000
Browns Ferry	Tenn.	Ohio	Tennessee River	27,130			1,200,000
Sequoyah	Tenn.	Ohio	Tennessee River	20,650			1,205,000
			Upper Mississippi Region				
Ames	Iowa	Upper Miss.	Skunk River	314	21.3	18.4	87,200
Byron	Ill.	Upper Miss.	Rock River	8,000			308,000
Bear Creek	Mo.	Upper Miss.	Bear Creek	28	29.0	26.2	38,000
Blue Earth	Minn.	Upper Miss.	Minnesota River	11,250	14.2	10.9	283,000
Blue Earth	Minn.	Upper Miss.	Blue Earth River	3,550	18.4	14.8	206,000
Carlyle	Ill.	Upper Miss.	Kaskaskia River	2,680	19.2	15.8	246,000
Clarence Cannon	Mo.	Upper Miss.	Salt River	2,318	21.8	15.7	476,200
Clinton	Ill.	Upper Miss.	Salt Creek	296			99,500
Coralville	Iowa	Upper Miss.	Iowa River	3,084	20.8	14.4	326,000
Duane Arnold	Iowa	Upper Miss.	Cedar River	6,250			316,000
Farmdale	Ill.	Upper Miss.	Farm Creek	26	24.0	22.1	67,300
Fondulac	Ill.	Upper Miss.	Fondulac Creek	5.4	21.4	19.9	21,200
Friends Creek	Ill.	Upper Miss.	Friends Creek	133	27.8	21.6	83,160

*Lines indicate changes issued in an errata to Revision 2 to this guide.

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