9 VAC 25-720-50. Potomac - Shenandoah River Basin.

A. Total maximum daily load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/County	WBID	Pollutant	WLA	Units
1.	Muddy Creek	Nitrate TMDL Development for Muddy Creek/Dry River, Virginia	Rockingham	B21R	Nitrate	49,389.00	LB/YR
2.	Blacks Run	TMDL Development for Blacks Run and Cooks Creek	Rockingham	B25R	Sediment	32,844.00	LB/YR
3.	Cooks Creek	TMDL Development for Blacks Run and Cooks Creek	Rockingham	B25R	Sediment	69,301.00	LB/YR
4.	Cooks Creek	TMDL Development for Blacks Run and Cooks Creek	Rockingham	B25R	Phosphorus	0	LB/YR
5.	Muddy Creek	TMDL Development for Muddy Creek and Holmans Creek, Virginia	Rockingham	B22R	Sediment	286,939.00	LB/YR
6.	Muddy Creek	TMDL Development for Muddy Creek and Holmans Creek, Virginia	Rockingham	B22R	Phosphorus	38.00	LB/YR
7.	Holmans Creek	TMDL Development for Muddy Creek and Holmans Creek, Virginia	Rockingham/ Shenandoah	B45R	Sediment	78,141.00	LB/YR
8.	Mill Creek	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B29R	Sediment	276.00	LB/YR
9.	Mill Creek	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B29R	Phosphorus	138.00	LB/YR
10.	Pleasant Run	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B27R	Sediment	0.00	LB/YR

11.	Pleasant Run	TMDL Development for Mill Creek and Pleasant Run	Rockingham	B27R	Phosphorus	0.00	LB/YR
12.	Linville Creek	Total Maximum Load Development for Linville Creek: Bacteria and Benthic Impairments	Rockingham	B46R	Sediment	5.50	TONS/YR
13.	Quail Run	Benthic TMDL for Quail Run	Rockingham	B35R	Ammonia	7,185.00	KG/YR
14.	Quail Run	Benthic TMDL for Quail Run	Rockingham	B35R	Chlorine	27.63	KG/YR
15.	Shenandoah River	Development of Shenandoah River PCB TMDL (South Fork and Main Stem)	Warren & Clarke	B41R, B55R, B57R, B58R	PCBs	179.38	G/YR
16.	Shenandoah River	Development of Shenandoah River PCB TMDL (North Fork)	Warren & Clarke	B51R	PCBs	0.00	G/YR
17.	Shenandoah River	Development of Shenandoah River PCB TMDL (Main Stem)	Warren & Clarke	WV	PCBs	179.38	G/YR
18.	Cockran Spring	Benthic TMDL Reports for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins	Augusta	B10R	Organic Solids	1,556.00	LB/YR
19.	Lacey Spring	Benthic TMDL Reports for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins	Rockingham	B47R	Organic Solids	680.00	LB/YR
20.	Orndorff Spring	Benthic TMDL Reports	Shenandoah	B52R	Organic Solids	103.00	LB/YR

		for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins					
21.	Toms Brook	Benthic TMDL for Toms Brook in Shenandoah County, Virginia	Shenandoah	B50R	Sediment	8.1	T/YR
22.	Goose Creek	Benthic TMDLs for the Goose Creek Watershed	Loudoun, Fauquier	A08R	Sediment	1,587	T/YR
23.	Little River	Benthic TMDLs for the Goose Creek Watershed	Loudoun	A08R	Sediment	105	T/YR
24.	Christians Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Impaired Streams in the Middle River and Upper South River Watersheds, Augusta County, VA	Augusta	B14R	Sediment	145	T/YR
25.	Moffett Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Impaired Streams in the Middle River and Upper South River Watersheds, Augusta County, VA	Augusta	B13R	Sediment	0	T/YR
26.	Upper Middle River	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Impaired Streams in the	Augusta	B10R	Sediment	1.355	T/YR

		Middle River and Upper South River Watersheds, Augusta County, VA					
27.	Mossy Creek	Total Maxiumum Daily Load Development for Mossy Creek and Long Glade Run: Bacteria and General Standard (Benthic) Impairments	Rockingham	B19R	Sediment	0.04	T/YR
28.	Smith Creek	Total Maxiumum Daily Load (TMDL) Development for Smith Creek	Rockingham, Shenandoah	B47R	Sediment	353,867	LB/YR
29.	Abrams Creek	Opequon Watershed TMDLs for Benthic Impairments: Abrams Creek and Lower Opequon Creek, Frederick and Clarke Counties, Virginia	Frederick	B09R	Sediment	478	T/YR
30.	Lower Opequon Creek	Opequon Watershed TMDLs for Benthic Impairments: Abrams Creek and Lower Opequon Creek, Frederick and Clarke Counties, Virginia	Frederick, Clarke	B09R	Sediment	1,039	T/YR

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and waste load allocations.

TABLE B1 - POTOMAC RIVER SUB-BASIN RECOMMENDED SEGMENT CLASSIFICATIONS

SEGMENT NUMBER	DESCRIPTION OF SEGMENT	MILE TO MILE	CLASSIFICATION

1-23	Potomac River tributaries from the Virginia-West Virginia state line downstream to the boundary of the Dulles Area Watershed Policy	176.2 – 149.0	WQ
1-24	Potomac River tributaries located within the boundaries of the Dulles Area Watershed Policy	149.0 – 118.4	WQ
1-25	Potomac River tributaries from the downstream limit of the Dulles Area Watershed Policy to Jones Point	118.4 – 107.6	WQ
1-26	Potomac River tributaries from Jones Point downstream to Route 301 bridge	107.6 – 50.2	WQ
1-27	All Streams included in the Occoquan Watershed Policy	_____	WQ
1-28	Potomac tributaries from Route 301 bridge downstream to the mouth of the Potomac River	50.2-0.0	EL

TABLE B2 – POTOMAC RIVER SUB-BASIN - RECOMMENDED PLAN FOR WASTEWATER FACILITIES

FACILITY NUMBER	NAME	RECEIVING STREAM	RECOMMENDED ACTION	SIZE	TREATMENT LEVEL (4)	BOD_5	OUD	TKN	P	INSTITUTIONAL ARRANGEMENT
1	Hillsboro	North Fork Catoctin Creek WQ (1 –23)	Construct new facility	.043[(2)]	AWT	7[(7)]	-	-	-	Loudoun County Sanitation Authority (LCSA)
2	Middleburg	Wancopin Creek WQ (1-23)	Construct new facility; abandon old facility	.135	AST	14[(5)]	-	-	-	LCSA
3	Middleburg East and West	Unnamed tributary to Goose Creek WQ (1 –23)	Abandon- pump to new facility							
4	Round Hill	North Fork Goose Creek	No further action recommended	.2	AWT	10[(5)]	-	-	-	Town of Round Hill
5	St. Louis	Beaver Dam Creek WQ (1-23)	Construct new facility	.086	AST	20[(5)]	-	-	-	LSCA
6	Waterford	South Fork Catoctin Creek WQ (1-23)	No further action recommended	.058	AST	24[(5)]	-	-	-	LSCA
7	Hamilton	Unnamed tributary to South Fork of Catoctin Creek WQ (1-23)	Upgrade and or expand	.605[(2)]	AWT	7[(7)]	-	-	-	Town of Hamilton

8	Leesburg	Tuscarora Creek (1-24)	Upgrade and or expand	2.5	AWT	1[9]	-	1	0.1	Town of Leesburg
9	Lovettesville	Dutchman Creek WQ (1-23)	Upgrade and or expand	.269[2]	AWT	7[7]	-	-	-	Town of Lovetteville
10	Purcellville	Unnamed tributary to North Fork Goose Creek WQ (1-23)	No further action recommended	.5	AST	15[5]	-	-	-	Town of Purcellville
11	Paeonian Springs	Unnamed tributary to South Fork of Catoctin Creek WQ (1-23)	Construct new facility	.264[2]	AWT	7[7]	-	-	-	LCSA
12	Cedar Run Regional	Walnut Branch or Kettle Run WQ (1-27)	Construct new facility	1.16[2]	AWT	1[6]	-	1	0.1	Fauquier County Sanitation Authority
13	Vint Hill Farms	South Run (1-27)	Upgrade and/or expand	.246	AST	14[5]	-	-	2.5	U.S. Army
14	Arlington	Four Mile Run WQ (1-25)	Upgrade and/or expand	30[3]	AWT	3[8]	-	1	0.2	Arlington County
15	Alexandria	Hunting Creek WQ (1-26)	Upgrade and/or expand	54	AWT	3[8]	-	1	.02	Alexandria Sanitation Authority
16	Westgate	Potomac River WQ (1-26)	Abandon- pump to Alexandria							
17	Lower Potomac	Pohick Creek WQ (1-26)	Upgrade and/or expand	36(3)	AWT	3/8	-	1	0.2	Fairfax County
18	Little Hunting Creek	Little Hunting Creek WQ (1-26)	Abandon- pump to Lower Potomac							
19	Doque Creek	Doque Creek WQ (1-26)	Abandon- pump to Lower Potomac							
20	Fort Belvoir 1 and 2	Doque Creek WQ (1-26)	Abandon- pump to Lower Potomac							

21	Lorton	Mills Branch WQ (1-26)	Upgrade and/or expand	1.0	AWT	3[11]	-	1	0.1	District of Columbia
22	UOSA	Tributary to Bull Run WQ (1-27)	Expanded capacity by 5 mgd increments	10.9[3]	AWT	1[6]	-	1	0.1	USOA
23	Gainesville Haymarket	Tributary Rock Branch WQ (1-27)	Abandon Pump to UOSA							
24	Potomac (Mooney)	Neabsco Creek WQ (1-26)	Construct new facility	12[3]	AWT	3[8]	-	1	0.2	Occoquan-Woodbridge Dumfries-Triangle Sanitary District
25	Belmont	Marumsco Creek WQ (1-26)	Abandon- pump to Potomac							
26	Featherstone	Farm Creek WQ (1-26)	Abandon- pump to Potomac							
27	Neabsco	Neabsco Creek WQ (1-26)	Abandon- pump to Potomac							
28	Dumfries	Quantico Creek WQ (1-26)	Abandon- pump to Potomac							
29	Dale City #1	Neabsco Creek WQ (1-26)	Upgrade and /or expand	4.0	AWT	3[8]	-	1	0.2	Dale Service Corporation (DSC)
30	Dale City #8	Neabsco Creek WQ (1-26)	Upgrade and /or expand	2.0	AWT	3[8]	1	1	0.2	DSC
31	Quantico Mainside	Potomac River WQ (1-26)	Upgrade and /or expand	2.0	AWT	3[8]	-	1	0.2	U.S. Marine Corps
32	Aquia Creek	Austin Run WQ (1-26)	Construct new facility	3.0	AWT	3[8]	-	1	0.2	Aquia Sanitary District
33	Aquia	Aquia Creek WQ (1-26)	Abandon- pump to new facility							
34	Fairview Beach	Potomac River (estuary)	Construct new facility	.05	Secondary	Secondary	-	-	-	Fairview Beach Sanitary District

35	Dahlgren	Upper Machodoc Creek WQ (1-28)	Upgrade and/or expand	.2	Secondary	Secondary	-	-	-	Dahlgren Sanitary District
36	Colonial Beach	Monroe Creek EL (1-28)	No further action recommended	.85	Secondary	28[(5) (13)]				Town of Colonial Beach
37	Machodoc Kinsale		Construct new facility	.89	Secondary & Spray Irrigation	48[(10) (13)]	-	-	-	Machodoc Kinsale Sanitary District
38	Callao		Construct new facility	.25	Secondary & Spray Irrigation	48[(10) (13)]	-	-	-	Callao Sanitary District
39	Heathsville		Construct new facility	.10	Secondary & Spray Irrigation	48[(10) (13)]	-	-	-	Heathsville Sanitary District
40	King George Courthouse	Pine Creek	Construct new facility	.039	Secondary	30[(13)]	-	-	-	King George County

TABLE B2 - NOTES: POTOMAC RIVER SUB-BASIN - RECOMMENDED PLAN FOR WASTEWATER TREATMENT FACILITIES

(1) Year 2000 design flow 201 Facility Plan, P.L. 92-500, unless otherwise noted.

(2) Year 2000 average flow from Potomac/Shenandoah 303(e) Plans, Vol V-A Appendix, 1975 pp. B-33-B-44.

(3) Future expansion at unspecified date.

(4) Secondary treatment: 24-30 mg/l BOD_5, advanced secondary treatment (AST): 11-23 mg/l, advanced wastewater treatment (AWT): <10mg/l BOD_5. A range is given to recognize that various waste treatment.processes have different treatment efficiencies.

(5) Effluent limits calculated using mathematical modeling.

(6) Effluent limits based on Occoquan Watershed Policy, presented under reevaluation.

(7) Effluent limits based on treatment levels established by the Potomac/Shenandoah 303(e) Plan, Vol. V-A 1975, p. 237, to protect low flow streams and downstream water supply.

(8) Effluent limits based on Potomac River Embayment Standards, presently under reevaluation. Nitrogen removal limits deferred until reevaluation is complete.

(9) Effluent limits based on Dulles Watershed Policy, recommended for reevaluation. Interim effluent limits of 12 mg/l BOD_5 and 20 mg/l Suspended Solids will be met until the Dulles Area Watershed Standards are reevaluated.

(10) Effluent limits based on Virginia Sewerage Regulation, Section 33.02.01.

(11) Interim effluent limits of 30 mg/l BOD_5, 30mg/l Suspended Solids, and 4 mg/l Phosphorus, will be effective until average daily flows exceeds 0.75 MGD. At greater flows than 0.75 MGD, the effluent limitations will be defined by the Potomac Embayment Standards.

(12) Secondary treatment is permitted for this facility due to the the extended outfall into the main stem of the Potomac River.

(13) This facility was also included in the Rappahannock Area Development Commission (RADCO) 208 Areawide Waste Treatment Management Plan and Potomac-Shenandoah River Basin 303 (e) Water Quality Management Plan.

TABLE B3 - SHENANDOAH RIVER SUB-BASIN RECOMMENDED SEGMENT CLASSIFICATIONS

SEGMENT NUMBER	DESCRIPTION OF SEGMENT	MILE TO MILE	CLASSIFICATION
1-1	North River-main stream and tributaries excluding segments 1-1a, 1-1b	56.4-0.0	EL
1-1a	Muddy Creek-main stream and War Branch, RM 0.1-0.0	3.7 - 1.7	WQ
1-1b	North River-main stream	16.1 - 4.6	WQ
1-2	Middle River-main stream and tributaries excluding segments 1-2a, 1-2b	69.9 - 0.0	EL
1-2a	Middle River-main stream	29.5 - 17.9	WQ
1-2b	Lewis Creek-main stream	9.6 - 0.0	WQ
1-3	South River-main stream and tributaries excluding segment 1-3a	52.2 - 0.0	EL
1-4	South Fork Shenandoah-main stream and tributaries excluding segments 1-4a, 1-4b, 1-4c	102.9 - 0.0	EL
1-4a	South Fork Shenandoah-main stream	88.1 - 78.2	WQ
l-4b	Hawksbill Creek-main stream	6.20 - 0.0	WQ
1-4c	Quail Run-main stream	5.2 - 3.2	WQ
1-5	North Fork Shenandoah- main stream and tributaries excluding segment 1-5a, 1-5h	108.9 – 0.0	EL
1-5a	Stony Creek-main stream	19.9 - 14.9	WQ
1-5b	North Fork Shenandoah-main stream	89.0 - 81.4	WQ
1-6	Shenandoah River-main stream and tributaries excluding segments 1-6a, 1-6b	57.4 - 19.8	EL
1- 6a	Stephens Run-main stream	8.3 - 0.0	WQ
1-6b	Dog Run-main stream	5.2 - 0.0	WQ
1-7	Opequon Creek-main stream and tributaries excluding segments 1-7a, 1-7b	54.9 - 23.6	EL
l-7a	Opequon Creek-main stream	32.3 - 23.6	WQ
1-7b	Abrams Creek-main stream	8.7 - 0.0	WQ

1-8	All Virginia streams upstream of Opequon-Potomac confluence that have headwaters in Frederick County	--	EL
1-9	All Virginia streams upstream of Opequon-Potomac confluence that have headwaters in Highland County	--	EL

* R.M. = River Mile, measured from the river mouth

TABLE B4 - SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN FOR SELECTED INDUSTRIAL WASTEWATER TREATMENT FACILITIES

FACILITY NUMBER	NAME[1]	INDUSTRIAL CATEGORY	RECEIVING STREAM CLASSIFICATION	RECOMMENDED WASTELOAD ALLOCATION[2]			COMPLIANCE SCHEDULE
				BOD_5	TKN	NH_3 -N	
1	Wampler	Food Processing	War Branch WQ (1-1a)	84[3]	-	-	None
6	Wayn-Tex	Plastic and Synthetic Materials Mfg.*	South River WQ (I-3a)	44[5]	-	-	None
7	DuPont	Plastic and Synthetic Materials Mfg.*	South River WQ (I-3a)	600	-	50	None
8	Crompton-Shenandoah	Textile Mills*	South River WQ (1-3a)	60	173[4]	88	None
10	General Electric	Electroplating*	South River WQ (1-3a)	BPT Effluent Limits			None
12	Merck	Miscellaneous Chemicals (Pharmaceutical)*	S. F. Shenandoah River WQ (1-4a)	3454	2846	1423	Consent Order
17	VOTAN	Leather, Tanning and Finishing*	Hawksbill Creek WQ (I-4b)	240	75	-	None
21	National Fruit	Food Processing	N. F. Shenandoah River WQ (1-5b)	[6]	[6]	[6]	None
22	Rockingham Poultry	Food Processing	N. F. Shenandoah River WQ (1-5b)	[6]	[6]	[6]	None
23	Shen-Valley Meat Packers	Food Processing	N. F. Shenandoah River WQ (1-5b)	[6]	[6]	[6]	None
35	O'Sullivan	Rubber Processing* Machinery and Mechanical Products Manufacturing	Abrams Creek WQ (I-7b)	BPT Effluent Limits			None

TABLE B4 - NOTES: SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN SELECTED INDUSTRIAL WASTEWATER TREATMENT FACILITIES

[1] An * identifies those industrial categories that are included in EPA's primary industry classification for which potential priority toxic pollutants have been identified.

(2) Allocation (lb/d) based upon 7Q10 stream flow. Tiered permits may allow greater wasteloads during times of higher flow. BPT = Best Practicable Technology.

(3) A summer 1979 stream survey has demonstrated instream D.O. violations. Therefore, the identified wasteload allocation is to be considered as interim and shall be subject to further analysis.

(4) The NPDES permit does not specify TKN but does specify organic-N of 85 lb/d. TKN is the sum of NH -N and organic -N.

(5) This allocation is based upon a flow of 0.847 MGD.

(6) The total assimilative capacity for segment WQ (1-5b) will be developed from an intensive stream survey program and development of an appropriate calibrated and verified model. Wasteload allocations for National Fruit, Rockingham Poultry and Shen-Valley will be determined after the development of the calibrated and verified model and the determination of the segment's assimilative capacity.

TABLE B5 - SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN FOR SELECTED MUNICIPAL WASTEWATER TREATMENT FACILITIES

FACILITY NUMBER	NAME	RECOMMENDED RECEIVING STREAM	FACILITY			WASTELOAD ALLOCATION(3) lb/d BOD_5	INSTITUTIONAL ARRANGEMENT	COMPLIANCE(4) SCHEDULE
			RECOMMENDED ACTION	SIZE(1)	TREATMENT(2) LEVEL			
2	Harrisonburg Rockingham Reg. Sewer Auth.	North River WQ (1-1)	Correct I/I	12.0(5)	AST	2,0002(6)	Harrisonburg-Rockingham Regional Sewer Authority	None
3	Verona	Middle River WQ (1-2a)	Construct new facility, abandon old plant, correct I/I	0.8	Secondary	Secondary Limits	Augusta County Service Authority	July 1, 1983
4	Staunton	Middle River WQ (1-2a)	Upgrade, provide outfall to Middle River, correct I/I	4.5	Secondary	Secondary Limits	City of Staunton	July 1, 1983
5	Fishersville	Christians Creek EL (1-2)	No further action recommended	2.0	Secondary	Secondary Limits	Augusta County Service Authority	None
9	Waynesboro	South River WQ (1-3a)	Upgrade, correct I/I	4.0	AWT with nitrification	250(5)	City of Waynesboro	July 1, 1983

11	Grottoes	South River EL (1-3)	Construct new facility	0.225	Secondary	Secondary Limits	Town of Grottoes	No existing facility
13	Elkton	S.F. Shenandoah River WQ (1-4a)	Construct new facility, abandon old plant	0.4	Secondary	Secondary Limits	Town of Elkton	July 1, 1983
14	Massanutten Public Service Corporation	Quail Run WQ (1-4c)	No further action recommended	1.0	AWT	84.0[8]	Private	None
15	Shenandoah	S.F. Shenandoah River EL (1-4)	Upgrade, expand, correct I/I	0.35	Secondary	Secondary limits	Town of Shenandoah	No existing facility
16	Stanley	S.F. Shenandoah River EL (1-4)	Construct new facility	0.3	Secondary	Secondary limits	Town of Stanley	No existing facility
18	Luray	Hawksbill Creek WQ (1-4b)	Construct new facility, abandon old plant, correct I/I	0.8	Secondary	Secondary Limits	Town of Luray	July 1, 1983
19	Front Royal	Shenandoah River EL (1-6)	Construct new facility, abandon old plant, correct I/I	2.0	Secondary	Secondary Limits	Town of Front Royal	July 1, 1983
20	Broadway	N.F. Shenandoah River WQ (1-5b)	Upgrade, expand, investigate I/I	[6]	[6]	[6]	Town of Broadway	July 1, 1983
24	Timberville	N.F. Shenandoah River WQ (1-5b)	Upgrade, expand, investigate I/I	[6]	[6]	[6]	Town of Timberville	July 1, 1983
25	New Market	N.F. Shenandoah River EL (1-5)	Upgrade, investigate I/I	0.2	Secondary	Secondary Limits	Town of New Market	July 1, 1983
26	Mount Jackson	N.F. Shenandoah River EL (1-5)	Upgrade, expand, correct I/I	.0.2	Secondary	Secondary Limits	Town of Mount Jackson	July 1, 1983
27	Edinburg	N.F. Shenandoah River EL (1-5)	Upgrade, expand, investigate I/I	0.15	Secondary AST	Secondary Limits 65	Town of Edinburg Public	July 1, 1983 None
28	Stony Creek Sanitary District	River EL (1-5) Stony Creek WQ (1-5a)	No further action required	0.6	AST	65	Public	

29	Woodstock	N.F. Shenandoah River EL (1-5)		0.5	Secondary	Secondary Limits	Town of Woodstock	July 1, 1983
30	Toms Brook-Mauertown	Toms Brook EL (1-5)	Construct new facility	0.189	Secondary	Secondary Limits	Toms Brook	No existing facility
31	Strasburg	N.F. Shenandoah River EL (1-5)	Upgrade, expand, correct I/I	0.8	Secondary	Secondary Limits	Town of Strasburg	July 1, 1983
32	Middletown	Meadow Brook EL (1-5)	Upgrade, expand	0.2	Secondary	Secondary	Town of Middletown	July 1, 1983
33	Stephens City Stephens Run	Stephens Run EL (1-6a)	Upgrade, expand	0.54	AST	72	Frederick-Winchester Service Authority	July 1, 1983
34	Berryville	Shenandoah River EL (1-6)	Upgrade, provide outfall to Shenandoah River, investigate I/I	0.41	Secondary	Secondary Limits	Town of Berryville	July 1, 1983
36	Frederick-Winchester Regional	Opequon Creek WQ (1-7a)	Construct new facility, abandon county and city plans, correct I/I	6.0	AWT with nitrification	456[(7)]	Frederick-Winchester Service Authority	July 1, 1983
37	Monterey	West Strait Creek EL (1-9)	Upgrade, correct I/I	0.075	Secondary	Secondary Limits	Town of Monterey	July 1, 1983

TABLE B5 - NOTES: SHENANDOAH RIVER SUB-BASIN - RECOMMENDED PLAN FOR SELECTED MUNICIPAL WASTEWATER TREATMENT FACILITIES

(1) Year 2000 design flow (MGD) unless otherwise noted.

(2) Secondary treatment: 24-30 mg/l BOD_5, advanced secondary treatment (AST): 11-23 mg/l BOD_5, advanced wastewater treatment (AWT): <10 mg/l BOD_5. A range is given to recognize that various waste treatment processes have different treatment efficiencies.

(3) Recommended wasteload allocation calculated using mathematical modeling based upon 7Q10 stream flows. Tiered permits may allow greater wasteloads during periods of higher stream flows. Allocations other than BOD_5 are noted by footnote.

(4) The July 1, 1983, data is a statutory deadline required by P.L. 92-500, as amended by P.L. 92-217. The timing of construction grant funding may result in some localities to miss this deadline.

(5) Year 2008 design.

(6) This BOD loading is based on a 7QI0 flow rate of 26.8 cfs at the HRRSA discharge.

(7) NH_3 -N = 50 lb/d.

(8) This allocation is based on a TKN loading no greater than 84 Ib/day.

9 VAC 25-720-90. Tennessee-Big Sandy River Basin.

A. Total maximum Daily Load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/ County	WBID	Pollutant	WLA	Units
1.	Guest River	Guest River Total Maximum Load Report	Wise	P11R	Sediment	317.52	LB/YR
2.	Cedar Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	1,789.93	LB/YR
3.	Hall/Byers Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	57,533.49	LB/YR
4.	Hutton Creek	Total Maximum Daily Load (TMDL) Development for Cedar Creek, Hall/Byers Creek and Hutton Creek	Washington	O05R	Sediment	91.32	LB/YR
5.	Clinch River	Total Maximum Daily Load Development for the Upper Clinch River Watershed	Tazewell	P01R	Sediment	206,636	LB/YR
6.	Lewis Creek	Total Maximum Daily Load Development for the Lewis Creek Watershed	Russell	P04R	Sediment	~~21,732~~ 40,008	LB/YR
7.	Black Creek	General Standard Total Maximum Daily Load	Wise	P17R	Manganese	2,127	KG/YR

		Development for Black Creek, Wise County, Virginia					
8.	Dumps Creek	General Standard Total Maximum Daily Load Development for Dumps Creek, Russell County, Virginia	Russell	P08R	Total Dissolved Solids	1,631,575	KG/YR
9.	Dumps Creek	General Standard Total Maximum Daily Load Development for Dumps Creek, Russell County, Virginia	Russell	P08R	Total Suspended Solids	316,523	KG/YR
10.	Beaver Creek	Total Maximum Daily Load Development for the Beaver Creek Watershed	Washington	O07R	Sediment	784,036	LB/YR

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and waste load allocations.

TABLE B1 - SEWERAGE SERVICE AREAS

			NPDES LIMITS[3]			
Map[1] No.	Locality	Receiving Stream Classification[2]	FLOW (mgd)	BOD_5 (1lbs/day)	SS (lbs/day)	Status of Applicable[4] Section 201 Programs (March 1977)
14T	Abingdon	EL	0.6	840	840	Step III at EPA for award.
14B	Amonate	EL	Permit to be issued in future			Not on priority list.
4T	Appalachia	EL	0.3	75	75	To be studied with Big Stone Gap
5T	Big Stone Gap	EL	0.8	240	240	Recommended for FY 77 Step 1.
13B	Bishop	EL	Permit to be issued in future			Not on priority list.

	Bristol	EL	Served by plant in Tennessee			Health hazard area to be served by collection system funded in FY 76. Extension of existing interceptor into Bearer Creek & Sinking Creek area to be funded by Region IV EPA and Tennessee. Also infiltration/inflow study to be funded in FY 77.
23T	Chilhowie	EL	0.265	68.5	79.6	Proposed Step I study with Marion.
	Cleveland	WQ	0.05	12.5	12.5	Step III grant awarded by EPA.
	Clinchport	WQ	Not to exceed present discharge			Town and Country Authority has not yet applied for Step I from FY 76 funds.
2B	Clintwood	WQ	0.235	*70.5/117.5	*70.5/ 117.5	On FY 77 list for Step I.
11T	Coeburn	WQ	0.4	160	160	On FY 77 list for Step I.
18T	Damascus	EL	0.25	62.5	62.5	Final audit and inspection of facility completed.
6T	Duffield	EL	0.075	30	30	Not on priority list.
	Dungannon- Fort Blackmore	WQ	Permit to be issued in future			Not on priority list.
10T	Gate City- Weber City	EL	0.504	*151/252	*151/252	Step I in progress.
3B, 5B	Harmon-Big Rock		1.25	156	312	System is approved by state and submitted to EPA.
6B, 7B	Grundy-Vansant	WQ	Permit to be issued in future			System is approved and submitted to EPA.
9B	Haysi	WQ	Permit to be issued in future			Step I plan is complete. Town disapproved plan. SWCB evaluating alternatives.
8B T	Hurley	WQ	Permit to be issued in future			Step I plan complete and under review by state.
1T	Jonesville	EL	0.15	38	38	Not on priority list.
13T	Lebanon	WQ	0.2	60	60	Step III application at EPA.
25T	Marion	EL	1.7	510	510	Step I recommended for FY 77. Marion is proceeding on infiltration/inflow study under prior approval from EPA.
	Nickelsville	WQ	Permit to be issued in future			Not on priority list.
7T, 8T	Norton	WQ	0.77, 0.22	832,371	640,0184	Step I in process (with Wise).
2T	Pennington Gap	EL	0.315	410	315	Step I recommended for FY 76. Community has not yet completed Step I application.
1 B	Pound	WQ	0.175	44	44	Step III funded by EPA. Facility nearly completed.
19T	Raven-Doran	WQ	0.26	67.2	78	System to remain unchanged.

20T	Richlands	WQ	0.8	845	650	Step I in process. Step II recommended in FY 77.
	Rosedale	WQ	Permit to be issued in future			Not on priority list.
	Rose Hill-Ewing	EL	Permit to be issued in future			Not on priority list.
3T	St. Charles	EL	0.125	25	25	Abandonment proposed. Then to be served by Pennington Gap, subject to recommendations of Facility Plan.
12T	St. Paul	WQ	0.4	100	100	Complete and audited by EPA.
22T	Saltville	EL	0.5	125	125	Complete and audited by EPA.
	Sugar Grove-Teas	EL	Permit to be issued in future			Not on priority list.
15T	Swords Creek-Honaker	EL	0.144	187	144	Step I in FY 76. Step II recommended in FY 77.
24T	Tazewell, Town of	EL	0.70	*210/350	*210/350	Step I recommended in FY 77.
10B, 11B, 12B	Trammel-McClure	WQ	Permit to be issued in future			Not on priority list.
9T	Wise	WQ	0.28	112	112	Step I in progress (with Norton).

[1] Dischargers are shown on Plate 3-B (Map No. with “B” designates Big Sandy) and 3-T (Map No. with “T” designates Tennessee).

[2] Effluent Limiting (EL) or Water Quality (WQ).

[3] For existing sewage treatment facility.

[4] For new sewage treatment facility.

*Seasonal NPDES allowable loading: April to September/October to March.

Source: Thompson & Litton and State Water Control Board.

9 VAC 25-720-130. New River.

A. Total maximum Daily Load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/County	WBID	Pollutant	WLA	Units
1.	Stroubles Creek	Benthic TMDL for Stroubles Creek in Montgomery County, Virginia	Montgomery	N22R	Sediment	233.15	T/YR
2.	Back Creek	Fecal Bacteria and	Pulaski	N22R	Sediment	0.28	T/YR

		General Standard Total Maximum Daily Load Development for Back Creek Watershed, Pulaski County, VA					
3.	Crab Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Crab Creek Watershed, Montgomery County, VA	Montgomery	N18R	Sediment	77	T/YR
4.	Peak Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Peak Creek Watershed, Pulaski County, VA	Pulaski	N17R	Copper	12	KG/YR
5.	Peak Creek	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Peak Creek Watershed, Pulaski County, VA	Pulaski	N17R	Zinc	57	KG/YR
6.	Bluestone River	Fecal Bacteria and General Standard Total Maximum Daily Load Development for Bluestone River	Tazewell	N36R	Sediment	81.4	T/YR
7.	Hunting Camp Creek	"Total Maximum Daily Load (TMDL) Development for Hunting Camp Creek Aquatic Life Use (Benthic) and E. coli (Bacteria) Impairments"	Bland	N31R	Sediment	0	LB/YR

B. Stream segment classifications, effluent limitations including water quality based effluent limitations, and waste load allocations.

TABLE B1- SEWERAGE SERVICE AREAS

Map1 No.	Locality	Receiving2 Stream Classification	NPDES Limits3 Flow (mgd)	BOD5 (kg/day)	SS (kg/day)	Status of Applicable4 Section 201 Programs (January 1980)
	Abbs Valley	WQ	Permit not needed at present			Not on priority list
	Austinville	EL	Permit not needed at present			Not on priority list
	Bastian	EL	Permit not needed at present			Continue to use septic tanks for present
1	Blacksburg	EL	6.0	544.8	544.8	Completed
	Bland	EL	Permit to be issued in future			Not on priority list
29	Bluefield	WQ	3.5	106	106	Near Completion
	Boissevain	WQ	Effluent treated at Pocahontas			Redesign to treat at Pocahontas underway
2	Christiansburg	WQ	2.0	113.5	113.5	Completed
3	Dublin	EL	.22	29.9/49.9	29.9/49.9	To be connected to Pepper's Ferry STP (Radford Cluster) in FY-80
	Elk Creek	EL	Permit not needed at present			Continue to use septic tanks
4	Fairlawn	EL	.26	47	47	To be connected to Pepper's Ferry STP (Radford Cluster)
	Falls Mills	WQ	.144	5.5	5.5	Step I approved; limits for new plant
	Flat Ridge	EL	Permit not needed at present			Not on priority list
*5	Floyd	EL	.1	59.0	45.4	Small community; Step IV
13	Fries	EL	.02	11.8	9.1	Step I approved
14			.16	94.5	72.7	
17	Galax	EL	1.5	170	170	Not on priority list
	Glen Lyn	EL	Permit not needed at present			Not on priority list
15	Hillsville	EL	.2	23	23	Step I to be approved soon
16			.15	17	17	

*18	Independence	EL	.2	22.7	22.7	Step I approved; selected alternative was for one plant
19			.1	11.4	11.4	
	Ivanhoe	EL	Permit not needed at present			Continue to use septic tanks
	Max Meadows	EL	Permit to be issued in future			Not on priority list
	Mechanicsburg	EL	Permit not needed at present			Not on priority list
6	Narrows	EL	0.60	354.0	272.0	Step I at EPA; Step II - FY-80
	Newport	EL	Permit not needed at present			Not on priority list
7	Pearisburg	EL	0.30	177.0	136.0	Step I at EPA; Step II - FY-80; Step III - FY-84
	Pembroke	EL	Permit not needed at present			Not on priority list
*30	Pocahontas	WQ	.15	17	17	Step I grant approved to correct I/I problems
8	Pulaski	EL	2.0	234/303	234	To be connected to Pepper's Ferry STP (Radford Cluster) in FY-80 (Step II)
9	Radford STP	EL	2.5	1475	925	Step II - FY-80
*10	Rich Creek	EL	.12	71	54	Step I at EPA, Step IV - FY-83
31	Riner	EL	.035	4.0	4.0	Completed
	Rocky Gap	EL	Permit not needed at present			Continue to use septic tanks for present
12	Rural Retreat	EL	0.15	37.5	37.5	Step I to be completed in FY-80
	Speedwell	EL	Permit not needed at present			Continue to use individual septic tanks for present
	Troutdale	EL	Permit not needed at present			Continue to use individual septic tanks for present
	Woodlawn	EL	Permit to be issued in future			Not on priority list
11	Wytheville	EL	20	400	200	Sewage treatment plant completed

1Discharges are shown on Plate 3.

2Effluent Limiting (E.L.) or Water Quality Limiting (WQ).

3For existing sewage treatment facility.

4For new sewage treatment facility.

*Small communities with combined Step II and III Grants.

TABLE B2- EFFLUENT LIMITS(1) (4) NEW RIVER BASIN

Discharge	Receiving Stream	Maximum BOD5 Loading Limits (kg/day)
Troutdale	Fox Creek	6.1
Independence	Peachbottom Creek	13.5
Fries	New River	50.5
Galax	Chestnut Creek	240.3
Hillsville	Little Reed Island Creek	99.6
Woodlawn	Crooked Creek	69.5
Speedwell	Cripple Creek	17.4
Austinville	New River	19.5
Rural Retreat	South Fork	50.5
Wytheville	Reed Creek	298.3
Max Meadows	Reed Creek	82.4
(3)Pulaski	Peak Creek	316.8
Floyd	Dodd Creek	24.1
Riner	Mill Creek	9.8
Blacksburg	New River	583.4
Christiansburg	Crab Creek	359.4
(3)Dublin-New River-Fairlawn-Radford-Plum Creek	New River	772.7
Newport	Sinking Creek	2.9
Pembroke	New River	28.4
Bland	Walker Creek	10.3

Mechanicsburg	Walker Creek	3.1
Narrows-Pearisburg	New River	110.8
Bastian	Wolf Creek	10.4
Rocky Gap	Wolf Creek	9.0
Rich Creek	Rich Creek	19.9
Glen Lyn	New River	5.7
Bluefield	Bluestone River	136.4
(2) Abbs Valley	Laurel Fork	11.4
(2) Pocahontas	Laurel Fork	5.5
(2) Boissevain	Laurel Fork	5.9

(1) Other effluent limitations will be determined by Water Quality Standards and/or Best Available Technology requirements.

(2) Secondary treatment will be required until a further verification of the model is made to document the need for treatment beyond secondary.

(3) To join Radford Cluster.

(4) This table supersedes Table 152, page 199, Thompson & Litton, Inc., New River Basin Comprehensive Water Resources Plan, Volume V-A.

TABLE B3- NEW RIVER BASIN INDUSTRIAL EFFLUENT LIMITATIONS*

Parameters in Average kg/day or (Concentration) as mg/l

FACILITY NUMBER

MAP NUMBER	BOD5	SS	OIL & GREASE	IRON	COPPER	
20 APCO						
004		382	192			
401	1.14			(1.0) MAX	(1.0) MAX	
501		1.14				
006		318	159			

21 Burlington Industries 001 346	BOD5 354	SS 1.7	PHENOLS 0.9	SULFIDE 1.0	ALUMINUM	
22 Celanese Fibers Co. 002 003	FLOW (MGD) 2.8 3.5	BOD5 (30) 2,999	SS 2,023	COD 27,694		
23 Hercules, Inc. 001	SS 34					
24 Lynchburg Foundry 001	SS 143	OIL & GREASE 53.1	PHENOLS 1.04			
25 RAAP Combined Ind. 026	FLOW (MGD) 1.0	BOD5 114	SS 6,714 114	COD 237	OXIDIZED NITROGEN 18,697	SULFATE 565 67
26 New Jersey Zinc 001 002 003 004 005 006	BOD5 2.3	SS (38) (.30) (20) (30) (30) 2.3	TOTAL CYANIDE (0.02) (0.02) (0.25)	DISSOLVED LEAD (0.25) (0.25) (0.35) (1.0) (0.25) ------	DISSOLVED ZINC (1.0) (1.0) (1.0) (0.25) (1.0) ------	DISSOLVED IRON (0.3) (0.25) (0.25) (0.25) ------
27 Elk Creek Raycarl Products	SS (5)	OIL & GREASE (10)	IRON (1)	PHOSPHATE (2)	ZINC (0.5)	

28 Fields Mfg	BOD5 3.6	SS 4.1	OIL & GREASE 0.8	TEMP. 75°F		

Certified True and Accurate: _____

Robert G. Burnley
Director, DEQ

Date: _____