Title of Regulation: **9 VAC 25-420. James River 3(C) Wastewater Management Plan Peninsula Area (REPEALED).**

Title of Regulation: **9 VAC 25-430. Roanoke River Basin Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-440. Upper Roanoke River Subarea Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-450. Upper James River Basin Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-452. Upper James-Jackson River Subarea Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-460. Metropolitan/Regional Water Quality Management Plan for Northern Neck Planning District (No. 17) (REPEALED).**

Title of Regulation: **9 VAC 25-470. York River Basin Water Quality Management Plan. (REPEALED).**

Title of Regulation: **9 VAC 25-480. Tennessee and Big Sandy River Basins Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-490. Rappahannock Area Development Commission (RADCO) 208 Areawide Waste Treatment Management Plan and Potomac-Shenandoah River Basin 303(E) Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-500. State Water Quality Management Plan for the Fifth Planning District (REPEALED).**

Title of Regulation: **9 VAC 25-510. Water Quality Management Plan for the Southwest Virginia 208 Planning Area (REPEALED).**

Title of Regulation: **9 VAC 25-520. Water Quality Management Plan for the First Tennessee-Virginia Development District (REPEALED).**

Title of Regulation: **9 VAC 25-530. Water Quality Management Plan for the Hampton Roads Planning Area (Planning Districts 20 & 21) (REPEALED).**

Title of Regulation: **9 VAC 25-540. Water Quality Management Plan for the New River Basin (REPEALED).**

Title of Regulation: **9 VAC 25-550. Small Coastal River Basins and Chesapeake Bay Virginia Eastern Shore Portion Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-560. Potomac-Shenandoah River Basin Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-570. Richmond-Crater Interim Water Quality Management Plan (REPEALED).**

Title of Regulation: **9 VAC 25-572. Water Quality Management Plans (REPEALED).**

Title of Regulation: **9 VAC 25-720. Water Quality Management Planning ~~Public Participation Guidelines~~ Regulation.**

CHAPTER 720.
WATER QUALITY MANAGEMENT PLANNING REGULATION.

9 VAC 25-720-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise:

"Assimilative capacity" means the greatest amount of loading that a water can receive without violating water quality standards, significantly degrading waters of existing high quality, or interfering with the beneficial use of state waters.

"Best management practices (BMP)" means a schedule of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce the pollution of state waters. BMPs include treatment requirements, operating and maintenance procedures, schedule of activities, prohibition of activities, and other management practices to control plant site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage.

"Best practicable control technology currently available (BPT)" means control measures required of point source discharges (other than POTWs) as determined by the EPA pursuant to § 304(b)(1) of the CWA (33 USC §1251 et seq.) as of 1987.

"Board" means the State Water Control Board (SWCB).

"Clean Water Act or Act (CWA)" means 33 USC § 1251 et seq. as amended, as of 1987.

"Discharge" means when used without qualification, a discharge of a pollutant or any addition of any pollutant or combination of pollutants to state waters or waters of the contiguous zone or ocean or other floating craft when being used for transportation.

"Effluent limitation" means any restriction imposed by the board on quantities, discharge rates or concentrations of pollutants that are discharged from joint sources into state waters.

"Effluent limitation guidelines" means a regulation published by EPA under the Act and adopted by the board.

"Effluent limited segment (EL)" means a stream segment where the water quality does and probably will continue to meet state water quality standards after the application of technology-based effluent limitations required by §§ 301(b) and 306 of the CWA (33 USC § 1251 et seq.) as of 1987.

"Environmental Protection Agency (EPA)" means the United States Environmental Protection Agency.

"Load or loading" means the introduction of an amount of matter or thermal energy into a receiving water. Loading may be either man-caused (pollutant loading) or natural (background loading).

"Load allocation (LA)" means the portion of a receiving water's loading capacity attributable either to one of its existing or future nonpoint sources of pollution or to natural background sources. Load allocations are best estimates of the loading, which may range from accurate estimates to gross allotments, depending on the availability of data and appropriate techniques for predicting the loading. Wherever possible, natural and nonpoint source loads should be distinguished.

"Nonpoint source" means a source of pollution, such as a farm or forest land runoff, urban storm water runoff, mine runoff, or salt water intrusion that is not collected or discharged as a point source.

"Point source" means any discernible, defined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agricultural land.

"Pollutant" means any substance, radioactive material, or heat that causes or contributes to, or may cause or contribute to, pollution. It does not mean:

a. Sewage from vessels; or

b. Water, gas, or other material that is injected into a well to facilitate production of oil, dry gas, or water derived in association with oil or gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes if approved by the Department of Mines, Minerals and Energy unless the board determines that such injection or disposal will result in the degradation of ground or surface water resources.

"Pollution" means such alteration of the physical, chemical or biological properties of any state waters as will or is likely to create a nuisance or render such waters (i) harmful or detrimental or injurious to the public health, safety or welfare, or to the health of animals, fish or aquatic life; (ii) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (iii) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses; provided that: (a) an alteration of the physical, chemical, or biological property of state waters, or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner, which by itself is not sufficient to cause pollution, but which, in combination with such alteration of or discharge or deposit to state waters by other owners is sufficient to cause pollution; (b) the discharge of untreated sewage by any owner into state waters; and (c) contributing to the contravention of standards of water quality duly established by the board, are "pollution" for the terms and purposes of this water quality management plan.

"Publicly owned treatment works (POTW)" means any sewage treatment works that is owned by a state or municipality. Sewers, pipes, or other conveyances are included in this definition only if they convey wastewater to a POTW providing treatment.

"State waters" means all waters, on the surface and under the ground and wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands.

"Surface water" means all waters in the Commonwealth except ground waters as defined in § 62.1-255 of the Code of Virginia.

"Total maximum daily load (TMDL)" means the sum of the individual waste load allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, natural background loading and usually a safety factor. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. The TMDL process provides for point versus nonpoint source trade-offs.

"Toxic pollutant" means any agent or material including, but not limited to, those listed under § 307(a) of the CWA (33 USC § 1251 et seq. as of 1987), which after discharge will, on the basis of available information, cause toxicity.

"Toxicity" means the inherent potential or capacity of a material to cause adverse effects in a living organism, including acute or chronic effects to aquatic life, detrimental effects on human health or other adverse environmental effects.

"Virginia Pollution Discharge Elimination System (VPDES) permit" means a document issued by the board, pursuant to 9 VAC 25-30, authorizing, under prescribed conditions, the potential or actual discharge of pollutants from a point source to surface waters.

"Waste load allocation (WLA)" means the portion of a receiving water's loading or assimilative capacity allocated to one of its existing or future point sources of pollution. WLAs are a type of water quality-based effluent limitation.

"Water quality limited segment (WQL)" means any stream segment where the water quality does not or will not meet applicable water quality standards, even after the application of technology-based effluent limitations required by §§ 301(b) and 306 of the CWA (33 USC § 1251 et seq. as of 1987).

"Water quality management plan (WQMP)" means a state- or area-wide waste treatment management plan developed and updated in accordance with the provisions of §§ 205(j), 208 and 303 of the CWA (33 USC § 1251 et seq. as of 1987).

"Water quality standards (WQS)" means narrative statements that describe water quality requirements in general terms, and of numeric limits for specific physical, chemical, biological or radiological characteristics of water. These narrative statements and numeric limits describe water quality necessary to meet and maintain reasonable and beneficial uses such as swimming and, other water based recreation, public water supply and the propagation and growth of aquatic life. The adoption of water quality standards under the State Water Control Law is one of the board's methods of accomplishing the law's purpose.

9 VAC 25-720-20. Purpose.

The purpose of this regulation is to list by major river basin the following:

EPA-approved and board-adopted total maximum daily loads (TMDLs) and the stream segment classifications, effluent limitations including water quality based effluent limitations, and waste load allocations contained in the existing water quality management plans (WQMPs).

9 VAC 25-720-30. (Reserved)

9 VAC 25-720-40. (Reserved)

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

A. Total maximum daily load (TMDLs).

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*	*5 – 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	Neabaco	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 CreekEL (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
	Massanutten Public Service Corporation	Quail Run WQ (1-4c)	No further action recommended	1.0	AWT	84.0	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	6.5	p 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 lb/day.

9 VAC 25-720-60. James River Basin.

A. Total maximum daily load (TMDLs).

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

TABLE B1 - UPPER JAMES RIVER BASIN RECOMMENDED SEGMENT CLASSIFICATION

Stream Name	Segment No.	Mile to Mile	Classification	Comments
Maury River	2-4	80.3-0.0	E.L.	Main & tributaries
James River	2-5	271.5-266.0	W.Q.	Main only
James River	2-6	266.0-115.0	E.L.	Main & tributaries except Tye & Rivanna River
Tye River	2-7	41.7-0.0	E.L.	Main & tributaries except Rutledge Creek
Rutledge Creek	2-8	3.0-0.0	W.Q.	Main only
Piney River	2-9	20.6-0.0	E.L.	Main & tributaries

Rivanna River	2-10	20.0-0.0	E.L.	Main & tributaries
Rivanna River	2-11	38.1-20.0	W.Q.	Main only
Rivanna River	2-12	76.7-38.1	E.L.	Main & tributaries
S.F. Rivanna River	2-13	12.2-0.0	E.L.	Main & tributaries
Mechum River	2-14	23.1-0.0	E.L.	Main & tributaries
N.F. Rivanna River	2-15	17.0-0.0	E.L.	Main & tributaries except Standardsville Run
Standardsville Run	2-16	1.2-0.0	W.Q.	Main only
Appomattox River	2-17	156.2-27.7	E.L.	Main & tributaries except Buffalo Creek, Courthouse Branch, and Deep Creek
Buffalo Creek	2-18	20.9-0.0	E.L.	Main & tributaries except Unnamed Tributary @ R.M. 9.3
Unnamed Tributary of Buffalo Creek @ R.M. 9.3	2-19	1.3-0.0	W.Q.	Main only
Courthouse Branch	2-20	0.6-0.0	W.Q.	Main only
Deep Creek	2-21	29.5-0.0	E.L.	Main & tributaries except Unnamed Tributary @ R.M. 25.0
Unnamed Tributary of Deep Creek @ R.M. 25.0	2-22	2.2-0.0	W.Q.	Main only

TABLE B2 - UPPER JAMES RIVER BASIN LOAD ALLOCATIONS BASED ON EXISTING DISCHARGE POINT[7]

Stream Name	Segment Number	Classification	Mile to Mile	Significant Discharges	Total Assimilative Capacity of Stream BOD_5 lbs/day	Wasteload Allocation BOD_5 lbs/day[2]	Reserve BOD_5 lbs/day[5]

Cedar Creek	2-3	E.L.	1.9-0.0	Natural Bridge, Inc. STP	35.0	28.0	7.0 (20%)
Elk Creek	2-3	E.L.	2.8-0.0	Natural Bridge Camp for Boys STP	7.0	3.3	3.7 (53%)
Little Calfpasture River	2-4	E.L.	10.9-4.0	Craigsville	12.0	9.6	2.4 (20%)
Cabin River	2-4	E.L.	1.7-0.0	Millboro	Self -sustaining	None	None
Maury River	2-4	E.L.	19.6-12.2	Lexington STP	380.0	380.0	None
Maury River	2-4	E.L.	12.2-1.2	Georgia Bonded Fibers	760.0	102.0[3]	238.0 (31%)
				Buena Vista STP		420.0	
Maury River	2-4	E.L.	1.2-0.0	Lees Carpets	790.0	425.0[3]	290.0 (37%)
				Glasgow STP		75.0	
James River	2-5	W.Q.	271.5-266.0	Owens-Illinois	4,640.0	4,640.0[3]	None
James River	2-6	E.L.	257.5-231.0	Lynchburg STP	10,100.0	8,000.0	2,060.0 (20%)
				Babcock & Wilcox-NNFD		40.0[3]	
James River	2-6	E.L.	231.0-202.0	Virginia Fibre	3,500.0	3,500.0	None

Rutledge Creek	*2-8*	*W.Q.*	*3.0-0.0*	*Amherst STP*	*46.0*	*37.0*	*9.0 (20%)*
Town Creek	*2-7*	*E.L.*	*2.1-0.0*	*Lovington STP*	*26.0*	*21.0*	*5.0 (20%)*
Ivy Creek	*2-6*	*E.L.*	*0.1-0.0*	*Schuyler*	*13.8*	*11.0*	*2.8 (20%)*
James River	*2-6*	*E.L.*	*186.0-179.0*	*Uniroyal, Inc.*	*1,400.0*	*19.3*[6]	*1,336.0 (95%)*
				Scottsville STP		*45.0*	
North Creek	*2-6*	*E.L.*	*3.1-0.0*	*Fork Union STP*	*31.0*	*25.0*	*6.0 (20%)*
Howells Branch and Licking Hole Creek	*2-14*	*E.L.*	*0.7-0.0*	*Morton Frozen Foods*	*20.0*	*20.03*	*None*
Standardsville Run	*2-16*	*W.Q.*	*1.2-0.0*	*Standardsville STP*	*17.9*	*14.3*	*3.6 (20%)*
Rivanna River	*2-11*	*W.Q.*	*23.5-20.0*	*Lake Monticello STP*	*480.0*	*380.0*	*100.0 (20%)*
Rivanna River	*2-10*	*E.L.*	*15.0-0.0*	*Palmyra*	*250.0*	*4.0*	*158.0 (63%)*
				Schwarzenbach Huber		*88.0*[3]	
Unnamed Tributary of Whispering Creek	*2-6*	*E.L.*	*1.2-00*	*Dillwyn STP*	*38.0*	*30.0*	*8.0 (21%)*

South Fork Appomattox River	2-17	E.L.	5.5-0.0	Appomattox Lagoon	18.8	15.0	3.8 (20%)
Unnamed Tributary of Buffalo Creek	2-19	W.Q.	1.3-0.0	Hampden-Sydney Coll. STP	10.0	8.0	2.0 (20%)
Appomattox River	2-17	E.L.	106.1-88.0	Farmville STP	280.0	220.0	60.0 (21%)
Unnamed Tributary of Little Guinea Creek	2-17	E.L.	2.5-1.3	Cumberland H.S. Lagoon	0.6	.5	.1 (20%)
Unnamed Tributary of Tear Wallet Creek	2-17	E.L.	0.68-0.0	Cumberland Courthouse	8.8	7.0	1.8 (20%)
Courthouse Branch	2-22	W.Q.	2.2-0.0	Amelia STP	21.0	17.0	4.0 (20%)
Unnamed Tributary of Deep Creek	2-22	W.Q.	2.2-0.0	Crewe STP	50.3[11,12]	50.1[11,12]	0.2 (0.4%)[11,12,13]

[1] Recommended classification.

[2] Based on 2020 loads or stream assimilative capacity less 20%.

[3] Load allocation based on published NPDES permits.

[4] This assimilative capacity is based upon an ammonia loading no greater than 125.1 lbs/day.

[5] Percentages refer to reserve as percent of total assimilative capacity. Minimum reserve for future growth and modeling accuracy is 20% unless otherwise noted.

[6] No NPDES Permits published (BPT not established) allocation base on maximum value monitored.

[7] This table is for the existing discharge point. The recommended plan may involve relocation or elimination of stream discharge.

[8] Assimilative capacity will be determined upon completion of the ongoing study by Hydroscience, Inc.

[9] Discharges into Karnes Creek, a tributary to the Jackson River.

[10] Discharges into Wilson Creek, near its confluence with Jackson River.

[11] Five-day Carbonaceous Biological Oxygen Demand ($cBOD_5$).

[12] Revision supersedes all subsequent Crewe STP stream capacity, allocation, and reserve references.

[13] 0.4 percent reserve: determined by SWCB Piedmont Regional Office.

Source: Wiley & Wilson, Inc.

TABLE B3 - UPPER JAMES RIVER BASIN ADDITIONAL LOAD ALLOCATIONS BASED ON RECOMMENDED DISCHARGE POINT

Stream Name	Segment Number	Classification[1]	Mile to Mile	Significant Discharges	Total Assimilative Capacity of Stream BOD_5 lbs/day	Wasteload[2] Allocation BOD_5 lbs/day	Reserve[4] BOD_5 lbs/day[5]
Mill Creek	2-4	E.L.	5.5-0.0	Millboro	30.0	7.3	22.7(76%)
Calfpasture River	2-4	E.L.	4.9-0.0	Goshen	65.0	12.0	53.0 (82%)
Maury River	2-4	E.L.	1.2-0.0	Lees Carpet	790.0	425.0[3]	235.0 (30%)
				Glasgow Regional S.T.P.		130.0	
Buffalo River	2-7	E.L.	9.6-0.0	Amherst S.T.P.	150.0	120.0	30.0 (20%)
Rockfish River	2-6	E.L.	9.5-0.0	Schuyler S.T.P.	110.0	25.0	85.0 (77%)
Standardsville Run		E.L.		Standardsville	Land Application Recommended		
South Fork Appomattox River		E.L.		Appomattox Lagoon	Connect to Recommended Facility in Roanoke River Basin		

Buffalo Creek	2-17	E.L.	9.3-7.7	Hampden-Sydney College	46.0	23.0	23.0 (50%)
Unnamed trib. of Tear Wallet Creek		E.L.		Cumberland Courthouse	Land Application Recommended		
Courthouse Branch		E.L.		Amelia	Land Application Recommended		
Deep Creek	2-17	E.L.	25.0-12.8	Crewe S.T.P.	69.0	55.0	14.0 (20%)

[1]Recommended classification.

[2]Based on 2020 loads or stream assimilative capacity less 20%.

[3]Load allocation based on published NPDES permit.

[4]Percentages refer to reserve as percent of total assimilative capacity. Minimum reserve for future growth and modeling accuracy is 20% unless otherwise noted.

[5]Assimilative capacity will be determined upon completion of the ongoing study by Hydroscience, Inc.

Source: Wiley & Wilson, Inc.

TABLE B4 - SEGMENT CLASSIFICATION UPPER JAMES-JACKSON RIVER SUBAREA

Stream Name	Segment Number	Mile to Mile	Stream Classification	Comments
Back Creek	2-1	16.06-8.46	W.Q.	Main Only
Jackson River	2-1	95.70-24.90	E.L.	Main and Tributaries
Jackson River	2-2	24.90-0.00	W.Q.	Main Only
Jackson River	2-2	24.90-0.00	E.L.	Tributaries Only
James River	2-3	349.50-308.50	E.L.	Main and Tributaries
James River	2-3	308.50-279.41	E.L.	Main and Tributaries

TABLE B5 - UPPER JAMES-JACKSON RIVER SUBAREA WASTELOAD ALLOCATIONS BASED ON EXISTING DISCHARGE POINT[1]

MAP LOCATION	*STREAM NAME*	*SEGMENT NUMBER*	*SEGMENT CLASSIFICATION STANDARDS*	*MILE to*[2] *MILE*	*DISCHARGER*	*VPDES PERMIT NUMBER*	*VPDES PERMIT LIMITS* BOD_5 *kg/day*	*303(e)*[3] *WASTELOAD ALLOCATION* BOD_5 *kg/day*
1	*Jackson River*	*2-1*	*E.L.*	*93.05-*	*Virginia Trout*	*VA0071722*	*N/A*	*Secondary*
B	*Warm Springs Run*	*2-1*	*E.L.*	*3.62-0.00*	*Warm Springs STP*	*VA0028233*	*9.10*	*Secondary*
3	*Back Creek*	*2-1*	*W.Q.*	*16.06-8.46*	*VEPCO*	*VA0053317*	*11.50*	*11.50*
C	*X-trib to Jackson River*	*2-1*	*E.L.*	*0.40-0.0*	*Bacova*	*VA0024091*	*9.10*	*Secondary*
D	*Hot Springs Run*	*2-1*	*E.L.*	*5.30-0.00*	*Hot Springs Reg. STP*	*VA0066303*	*51.10*	*Secondary*
E	*X-trib to Cascades Creek*	*2-1*	*E.L.*	*3.00-0.00*	*Ashwood-Healing Springs STP*	*VA0023726*	*11.30*	*Secondary*
F	*Jackson River*	*2-1*	*E.L.*	*50.36-*	*U.S. Forest Service Bolar Mountain*	*VA0032123*	*1.98*	*Secondary*
G	*Jackson River*	*2-1*	*E.L.*	*43.55*	*U.S. Army COE Morris Hill Complex*	*VA0032115*	*1.70*	*Secondary*

H	Jackson River	2-1	E.L.	29.84-	Alleghany County Clearwater Park	VA0027955	5.70	Secondary
4	Jackson River	2-1	E.L.	25.99	Covington City Water Treatment Plant	VA0058491	N/A	Secondary
5	Jackson River	2-2	W.Q.	24.64-19.03	Westvaco	VA0003646	4,195.00	4,195.00[4]
6					Covington City[5] Asphalt Plant	VA0054411	N/A	N/A
7					Hercules, Inc[6]	VA0003450	94.00	94.00
J	Jackson River	2-2	W.Q.	19.03-10.5	Covington STP	VA0025542	341.00	341.00
K	Jackson River			10.5-0.0	Low Moor STP[7]	VA0027979	22.70	22.70
M					D.S. Lancaster CC[8]	VA0028509	3.60	3.60
L					Selma STP[9]	VA0028002	59.00	59.00
10					The Chessie System[10]	VA0003344	N/A	N/A
N					Clifton Forge STP[11]	VA0002984	227.00	227.00
11					Lydall[12]	VA0002984	6.00	6.00
P					Iron Gate STP[13]	VA0020541	60.00	60.00
8	Paint Bank Branch	2-2	E.L.	1.52	VDGIF Paint Bank Hatchery	VA0098432	N/A	Secondary
I	Jerrys Run	2-2	E.L.	6.72-	VDOT 1-64 Rest Area	VA0023159	0.54	Secondary

AA	East Branch (Sulfer Spring)	2-2	E.L.	2.16	Norman F. Nicholas	VA0078403	0.05	Secondary
BB	East Branch (Sulfer Spring)	2-2	E.L.	1.91-	Daryl C. Clark	VA0067890	0.068	Secondary
9	Smith Creek	2-2	E.L.	3.44-	Clifton Forge Water Treatment Plant	VA0006076	N/A	Secondary
O	Wilson Creek	2-2	E.L.	0.20-0.0	Cliftondale[14] Park STP	VA0027987	24.00	Secondary
2	Pheasanty Run	2-3	E.L.	0.01-	Coursey Springs	VA0006491	434.90	Secondary
Q	Grannys Creek	2-3	E.L	1.20-	Craig Spring Conference Grounds	VA0027952	3.40	Secondary
CC	X-trib to Big Creek	2-3	E.L	1.10-	Homer Kelly Residence	VA0074926	0.05	Secondary
12	Mill Creek	2-3	E.L	0.16-	Columbia Gas Transmission Corp.	VA0004839	N/A	Secondary
R	John Creek	2-3	E.L	0.20-	New Castle STP(old)	VA0024139	21.00	Secondary
S	Craig Creek	2-3	E.L	48.45-36.0	New Castle STP (new)	VA0064599	19.90	Secondary
T	Craig Creek	2-3	E.L	46.98-	Craig County Schools McCleary E.S.	VA0027758	0.57	Secondary

DD	Eagle Rock Creek	2-3	E.L.	0.08-	Eagle Rock STP[15] (Proposed)	VA0076350	2.30	Secondary
U	X-trib to Catawba Creek	2-3	E.L.	0.16	VDMH & R Catawba Hospital	VA0029475	13.60	Secondary
14	Catawba Creek	2-3	E.L.	23.84	Tarmac-Lonestar	VA0078393	0.80	Secondary
FF	Borden Creek	2-3	E.L	2.00-	Shenandoah Baptist Church Camp	VA0075451	0.88	Secondary
EE	X-trib to Borden Creek	2-3	E.L	0.36	David B. Pope	VA0076031	0.07	Secondary
V	X-trib to Catawba Creek	2-3	E.L	3.21-	U.S. FHA Flatwood Acres	VA0068233	0.03	Secondary
W	Catawba Creek	2-3	E.L	11.54-	Fincastle STP	VA0068233	8.50	Secondary
X	Looney Mill Creek	2-3	E.L	1.83-	VDOT I-81 Rest Area	VA0023141	0.91	Secondary
Y	X-trib to Stoney	2-3	E.L	0.57	VDOC Field Unit No. 25 Battle Creek	VA0023523	1.10	Secondary
Z	James River	2-3	E.L.	308.5-286.0	Buchanan STP	VA0022225	27.00	Secondary

TABLE B5 - NOTES:

N/A Currently No BOD^5 limits or wasteload have been imposed by the VPDES permit. Should BOD^5 limits (wasteload) be imposed a WQMP amendment would be required for water quality limited segments only.

[1] Secondary treatment levels are required in effluent limiting (E.L.) segments. In water quality limiting (W.Q.) segments quantities listed represent wasteload allocations.

[2] Ending river miles have not been determined for some Effluent Limited segments.

[3] These allocations represent current and original (1977 WQMP) modeling. Future revisions may be necessary based on Virginia State Water Control Board[] modeling.

[4] The total assimilative [~~capaciity~~ capacity]at critical stream flow for this portion of Segment 2-2 has been modeled and verified by Hydroscience, Inc. (March 1977) to be 4.914 kg/day BOD_5.

[5] The discharge is to an unnamed tributary to the Jackson River at Jackson River mile 22.93.

[6] The discharge is at Jackson River mile 19.22.

[7] The discharge is to the mouth of Karnes Creek, a tributary to the Jackson River at Jackson River mile 5.44.

[8] The discharge is at Jackson River mile 6.67.

[9] The discharge is at Jackson River mile 5.14.

[10] The discharge is at Jackson River mile 4.72.

[11] The discharge is at Jackson River mile 3.46.

[12] The discharge is at Jackson River mile 1.17

[13] The discharge is at Jackson River mile 0.76

[14] The discharge is to the mouth of Wilson Creek, a tributary to the Jackson River at Jackson River mile 2.44.

[15] The discharge is to the mouth of Eagle Rock Creek, a tributary to the Jackson River at Jackson River mile 330.35.

TABLE B6 - RICHMOND CRATER INTERIM WATER QUALITY MANAGEMENT PLAN STREAM CLASSIFICATIONS - JAMES RIVER BASIN

SEGMENT	SEGMENT NUMBER	MILE TO MILE	CLASSIFICATION
USGS HUC02080206 James River	2-19	115.0-60.5	W.Q.
USGS HUC02080207 Appomattox	2-23	30.1-0.0	W.Q.

TABLE B6- * Note: A new stream segment classification for the Upper James Basin was adopted in 1981. The SWCB will renumber or realign these segments in the future to reflect these changes. This Plan covers only a portion of these segments.

TABLE B7 - RICHMOND CRATER INTERIM WATER QUALITY MANAGEMENT PLAN– CURRENT PERMITTED WASTE LOADS (March 1988)

	SUMMER (June-October)						WINTER (November-May)					
	FLOW (mgd)	BOD_5		NH_3-N[1]		DO[2] (mg/l)	FLOW (mgd)	BOD_5		NH_3-N[1]		DO[2] (mg/l)
		(lbs/d)	(mg/l)	(lbs/d)	(mg/l)			(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	
City of Richmond STP[3]	45.00	3002	8.0	-	-	-	45.00	5367		-	-	-
E.I. DuPont-Spruance	8.68	936	-	-	-	-	8.68	936	-	-	-	-
Falling Creek STP	9.00	1202	16.0	-	-	5.9	9.00	2253	30.0	-	-	5.9
Proctor's Creek STP	6.40	1601	30.0	-	-	5.9	11.80	2952	30.0	-	-	5.9
Reynolds Metals Company	0.39	138	-	7	-	-	0.39	138	-	7	-	-
Henrico STP	30.00	3005	12.0	-	-	5.9	30.00	7260	29.0	-	-	5.9
American Tobacco Company	1.94	715	-	-	-	-	1.94	71 6	-	-	-	-
ICI Americas, Inc.	0.20	152	-	-	-	-	0.20	152	-	-	-	-
Phillip Morris- Park 500	1.50	559	-	-	-	-	1.50	557	-	-	-	-
Allied (Chesterfield)	51.00	1207	-	-	-	-	51.00	1207		-	-	-
Allied (Hopewell)	150.00	2500	-	-	-	-	150.00	2500	-	-	-	-
Hopewell Regional WTF	34.08	12507	44.0	-	-	4.8	34.08	12507	44.0	-	-	4.8
Petersburg STP	15.00	2804	22.4	-	-	5.0	15.00	2804	22.4	-	-	5.0
TOTAL	353.19	30328					358.59	39349				

[1] NH_3-N values represent ammonia as nitrogen.

[2] Dissolved oxygen limits represent average minimum allowable levels.

[3] Richmond STP's BOD_5 is permitted as $CBOD_5$

TABLE B7 - WASTE LOAD ALLOCATIONS FOR THE YEAR 1990

	SUMMER (June-October)						WINTER (November-May)				
	FLOW (mgd)	$CBOD_5$		NH_3-N[1,3]		DO[2] (mg/l)	$CBOD_5$		NH_3-N[1]		DO[2] (mg/l)
		(lbs/d)	(mg/l)	(lbs/d)	(mg/l)		(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	
City of Richmond STP	45.00	3002	8.0	2403	6.4	5.6	5367	14.3	5707	15.2	5.6
E.I. DuPont-Spruance	11.05	948		590		4.4	948		756		2.9
Falling Creek STP	10.10	1348	16.0	539	6.4	5.9	2023	24.0	1281	15.2	5.9
Proctor's Creek STP	12.00	1602	16.0	961	9.6	5.9	2403	24.0	1402	14.0	5.9
Reynolds Metals Co.	0.49	172		8		6.5	172		8		6.5
Henrico STP	30.00	3002	12.0	2403	9.6	5.6	4756	19.0	3504	44.0	5.6
American Tobacco Co.	2.70	715		113		5.8	715		113		5.8
ICI Americas, Inc.	0.20	167		8		5.8	167		8		3.1
Phillip Morris- Park 500	2.20	819		92		4.6	819		92		4.6
Allied (Chesterfield)	53.00	1255		442		5.7	1255		442		5.7
Allied (Hopewell)	165.00	2750		10326		6.1	2750		10326		6.1
Hopewell Regional WTF	34.07	12502	44.0	12091	36.2	4.8	12502	44.0	10291	36.2	4.8
Petersburg STP	15.00	2802	22.4	801	6.4	5.0	2802	22.4	2028	16.2	5.0
TOTAL	380.81	31084		28978			36679	35958			

[1] NH_3-N values represent ammonia as nitrogen.

[2] Dissolved oxygen limits represent average minimum allowable levels.

[3] Allied (Hopewell) allocation may be redistributed to the Hopewell Regional WTF by VPDES permit.

Table B7- WASTE LOAD ALLOCATIONS FOR THE YEAR 2000

	SUMMER (June-October)						WINTER (November-May)				
	FLOW (mgd)	$CBOD_5$		NH_3-N[1,3]		DO[2] (mg/l)	$CBOD_5$		NH_3-N[1]		DO[2] (mg/l)
		(lbs/d)	(mg/l)	(lbs/d)	(mg/l)		(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	
City of Richmond STP	45.08	3002	8.0	2403	6.4	5.6	5367	14.3		15.2	5.6
E.I. DuPont-Spruance	196.99	948		590		4.4	948		756		2.9
Falling Creek STP	10.10	1348	16.0	539	6.4	5.9	2023	24.0	1281	15.2	5.9
Proctor's Creek STP	16.80	1602	11.4	961	6.9	5.9	2403	17.1	1402	10.0	5.9
Reynolds Metals Co.	0.78	172		13		6.5	172		13		6.5
Henrico STP	32.80	3002	11.0	2403	8.8	5.6	4756	17.4	3504	12.8	5.6
American Tobacco Co.	3.00	715		113		5.8	715		113		5.8
ICI Americas, Inc.	0.20	167		8		5.8	167		8		3.1
Phillip Morris- Park 500	2.90	819		92		4.6	819		92		4.6
Allied (Chesterfield)	56.00	1255		442		5.7	1255		442		5.7
Allied (Hopewell)	170.00	2750		10326		6.1	2750		10326		6.1
Hopewell Regional WTF	36.78	12502	40.7	12091	33.5	4.8	12502	40.7	12091	33.5	4.8
Petersburg STP	15.00	2802	22.4	801	6.4	5.0	2802	22.4	2028	16.2	5.0
TOTAL	406.43	31084		28982			36679		35963		

[1] NH_3-N values represent ammonia as nitrogen.

[2] Dissolved oxygen limits represent average minimum allowable levels.

[3] Allied (Hopewell) allocation may be redistributed to the Hopewell Regional WTF by VPDES permit.

TABLE B7- WASTE LOAD ALLOCATIONS FOR THE YEAR 2010

	SUMMER (June-October)						WINTER (November-May)				
	FLOW (mgd)	$CBOD_5$		NH_3-N[1,3]		DO[2] (mg/l)	$CBOD_5$		NH_3-N[1]		DO[2] (mg/l)
		(lbs/d)	(mg/l)	(lbs/d)	(mg/l)		(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	
City of Richmond STP	45.86	3002	7.8	2403	6.3	5.6	5367	14.0		14.9	5.6
E.I. DuPont-Spruance	16.99	948		590		4.4	948		756		2.9
Falling Creek STP	10.10	1348	16.0	539	6.4	5.9	2023	24.0	1281	15.2	5.9
Proctor's Creek STP	24.00	1602	8.0	961	4.8	5.9	2403	12.0	1402	7.0	5.9
Reynolds Metals Co.	0.78	172		13		6.5	172		13		6.5
Henrico STP	38.07	3002	9.5	2403	7.6	5.6	4756	15.0	3504	11.0	5.6
American Tobacco Co.	3.00	715		113		5.8	715		113		5.8
ICI Americas, Inc.	0.20	167		8		5.8	167		8		3.1
Phillip Morris- Park 500	2.90	819		92		4.6	819		92		4.6
Allied (Chesterfield)	56.00	1255		442		5.7	1255		442		5.7
Allied (Hopewell)	180.00	2750		10326		6.1	2750		10326		6.1
Hopewell Regional WTF	39.61	12502	37.8	10291	31.1	4.8	12502	37.8	10291	31.1	4.8
Petersburg STP	15.00	2802	22.4	801	6.4	5.0	2802	22.4	2028	16.2	5.0
TOTAL	432.1	31084		28982			36679		35963		

[1] NH_3-N values represent ammonia as nitrogen.

[2] Dissolved oxygen limits represent average minimum allowable levels.

[3] Allied (Hopewell) allocation may be redistributed to the Hopewell Regional WTF by VPDES permit.

9 VAC 25-720-70. Rappahannock River Basin.

A. Total maximum Daily Load (TMDLs).

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

9 VAC 25-720-70 Rappahannock Area Development Commission (RADCO) 208 Area Wide Waste Treatment Management Plan And Potomac-Shenandoah River Basin 303(e) Water Quality Management Plan is included in The Potomac River Basin section.

9 VAC 25-720-80. Roanoke River Basin.

A. Total maximum Daily Load (TMDLs).

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

TABLE B1 - STREAM SEGMENT CLASSIFICATION

Classification		*Segment description*
WQMA IV		
	E	*All tributaries to the Roanoke River not previously classified in the WQMA.*
WQMA V		
	E	*Roanoke River and all tributaries in this WQMA.*
WQMA VI		
	WQ	*Ash Camp Creek.*
	EL	*Twittys Creek.*
	E	*Roanoke Creek to include all tributaries not previously classified in the WQMA.*
WQMA VII		
	WQ	*Banister River from /confluence of Polecat Creek to confluence of Dan and Banister Rivers (River only).*
	EL	*Dan River from confluence Miry Creek to backwaters of Kerr Reservoir (River only).*
	WQ	*Kerr Reservoir.*
	WQ	*Little Bluestone Creek.*

	WQ	*Butcher Creek*
	WQ	*Flat Creek.*
	E	*All tributaries to Kerr Reservoir, Dan River and Banister River not previously classified in this WQMA.*
	E	*Roanoke River from confluence Clover Creek to headwaters of Kerr Reservoir.*
	E	*All tributaries to the Roanoke River in this WQMA not previously classified.*
WQMA VIII		
	E	Hyco River from the NC-VA , State Line to it's confluence with the Dan River to include all tributaries.
WQMA IX		
	E	*Banister River through this WQMA*
	EL	*Georges Creek.*
	EL	*Cherrystone Creek.*
	E	*All tributaries to the Banister River not previously classified in this WQMA.*
WQMA X		
	E	*Dan River from NC-VA State Line to one mile above the confluence of Sandy River (River only).*
	E	*Sandy River to include all tributaries.*
	WQ	*Dan River from one mile above confluence of Sandy River to NC-VA line.*
	E	*Dan River from NC-VA line to confluence Miry Creek*
	E	*All tributaries to the Dan River in Virginia not previously classified in this WQMA.*
WQMA XII		
	E	*Smith River from its headwaters to Philpot Dam.*
	WQ	*Smith River from Philpott Dam to the NC-VA State Line.*
	EL	*Marrowbone Creek.*

	EL	*Leatherwood Creek.*
	E	*All tributaries to the Smith River not previously classified in this WQMA.*
WQMA XIII		
	E	*North Mayo River from its headwaters to the NC-VA State Line to include all tributaries.*
WQMA XIV		
	E	*Headwaters South Mayo River to confluence North Fork South Mayo River.*
	EL	*South Mayo River from confluence with North Fork to NC-VA Line.*
	E	*All tributaries of the South Mayo River not previously classified in this WQMA.*
WQMA XV		
	E	*All streams in this WQMA.*

Source: Hayes, Seay, Mattern & Mattern

TABLE B2

TABLE B2 - SEWERAGE SERVICE AREAS - WASTELOAD ALLOCATIONS FOR ROANOKE RIVER BASIN WATER QUALITY MANAGEMENT PLAN.

Water Quality Management Area (WQMA)	**Study Area Name**	**Discharger**	**Stream Name**	**Segment Classification**	**303(e) Wasteload Allocation BOD_5 lbs/day**
WQMA IV	Appomattox	Appomattox STP	Falling R.	EL	100.00
WQMA IV	Brookneal	Brookneal STP and Dan River, Inc.. -Brookneal	Roanoke R.	EL	1381.20
WQMA IV	Rustburg	Rustburg STP	Molleys Cr.	WQ	17.94
WQMA VI	Drakes Branch	West Point Stevens - Drakes Branch	Twittys Cr.	EL	27.82

WQMA VII	Clarksville	Chase City Regional STP	Little Blue Stone Cr.	WQ	N/A [1]

Water Quality Management Area (WQMA)	Study Area Name	Discharger	Stream Name	Segment Classification	303(e)Wasteload Allocation BOD_5 lbs/day
WQMA VII	Chase City-Boydton	Boydton Clarksville STP Burlington Industries-Clarksville	Coleman Cr. Kerr Reservoir Kerr Reservoir	EL WQ WQ	N/A[1] 131.00 1793.00
WQMA VII	South Boston Halifax-Scottsburg Clover	South Boston STP Halifax STP, Halifax Cotton Mills, Burlington Ind. - Halifax and Scottsburg STP Clover	Dan River Banister R. Clover Cr.	WQ WQ EL	1854.00 584.84 8.76
WQMA VII	South Hill - Lacrosse - Broadnax	South Hill, Lacrosse and Broadnax	Flat Cr.	WQ	N/A[1]
WQMA VII	Virgilina	Virgilina	X-Trib. To Wolfpit Run	EL	13.00
WQMA IX	Chatham-Gretna	Chatham Gretna	Cherrystone Cr. Georges Cr.	EL EL	125.22 100.00
WQMA X	Dan River	Danville and US Gypsum	Dan R.	WQ	4407.00
WQMA X	Dan River, Inc.	WILL DISCHARGE PROCESS WATER TO THE CITY OF DANVILLE STP			
WQMA XII	Smith R.	Henry County PSA-Upper Smith R. STP	Smith R.	WQ	567.00

		Collinsville STP Fieldcrest Mills	CONNECTED TO UPPER SMITH R. STP CONNECTED TO UPPER SMITH R. STP		
		E.I. duPont	Smith R.	WQ	503.00
		Martinsville STP	Smith R.	WQ	1500.00
		Henry County PSA-Lower Smith R. STP	Smith R.	WQ	567.00
WQMA XIV	Stuart-Patrick Springs	Stuart STP	S. Mayo R.	EL	141.90
		United Elastic Patrick Springs	S. Mayo R.	EL	8.38
WQMA XIV	NONE	United Elastic Woolwine	Smith R.	EL	192.00

TABLE B3

WASTELOAD ALLOCATIONS FOR DISCHARGERS WITH TIERED PERMITS ROANOKE RIVER BASIN WATER QUALITY MANAGEMENT PLAN.

Water Quality Management Area (WQMA)	Study Area Name	Discharger	Months	Effluent Flow (mgd)	D.O. (mg/l)	$CBOD_5$ (lbs/day)	BOD_5 (mg/l)	Ammonia (mg/l)	Total Kjeldahl Nitrogen (mg/l)
WQMA VI	Keysville	Keysville	Dec.-Apr. May-Nov.	0.500 0.500	5.0 5.0	104.32 70.94	25.0[1] 17.0[1]	1.4	4.0
WQMA VII	South Hill-Lacrosse-Broadnax	South Hill	Jan.-Feb.-March Apr.-May June-Sept Oct. Nov. Dec.	1.000 1.000 1.000 1.000 1.000 1.000	6.5 6.5 6.5 6.5 6.5 6.5	250.00 83.0 75.00 83.00 142.00 250.00	30.0 10.0 9.0 10.0 17.0 30.0	20.0 1.0 1.0 1.0 5.0 20.0	
WQMA VII	Clarksville Chase City Boydton	Boydton	May-Nov. Dec.-Apr.	0.360 0.360	5.0 5.0	39.1 75.1	13.0[1] 25.0[1]		3.0

WQMA VII	Clarksville-Chase City-Boydton	Chase City	May-Nov. Dec.-Apr.	0.600 0.600	6.0 7.0	65.04 125.22	13.0[1] 25.0[1]	1.8 3.4	4.2 8.8

NOTES:

[1]$CBOD_5$ ($CBOD_5/BOD_5$=25/30).]

TABLE B4 - SEGMENT CLASSIFICATION - STANDARDS UPPER ROANOKE RIVER SUBAREA

HUC CODE 03010101

Stream Name	*303(e) Segment Number*	*Mile to Mile*	*Stream Classification*	*Comments*
N.F. Roanoke River	*4A-1*	*30.80 to 0.00*	*E.L.-P*	*Main and tributaries.*
S.F. Roanoke River	*4A-1 16.60 to 0.00 E.L.-P Main and tributaries.*	*16.60 to 0.00*	*E.L.-P W.Q.-FC*	*Main and tributaries. Main only.*
Roanoke River	*4A-2*	*227.74 to 202.20*	*W.Q.-DO,P*	*Main only to 14th Street Bridge.*

Peters Creek	*4A-2*	*8.00 to 0.00*	*W.Q.-DO,P*	*Main only.*
Roanoke River	*4A-2*	*202.20 to 195.87*	*W.Q.-DO,P*	*Main to confluence with Prater Creek.*
Tinker Creek	*4A-2*	*19.40 to 0.00*	*W.Q.-DO,P,FC*	*Main only.*
Beck Creek	*4A-2*	*25.70 to 0.00*	*E.L.-P*	*Main and tributaries.*
Roanoke River	*4A-2*	*195.87 to 158.20*	*W.Q.- DO,P*	*Main and impounded tributaries (impounded portions only) to Smith Mtn. Dam.*
Other tributaries to the Roanoke River	*4A-2*	*227.74 to 158.20*	*E.L.-P*	*Tributaries only.*
Blackwater River	*4A-3*	*58.80 to 19.75*	*E.L.-P*	*Main and tributaries.*
Blackwater River	*4A-3*	*19.75 to 0.00*	*W.Q.-DO,P*	*Main and impounded tributaries(impounded portions only) to mouth of Blackwater River.*
Other tributaries to the Blackwater River	*4A-3*	*58.80 to 0.00*	*E.L.-P*	*Tributaries only.*
Pigg River	*4A-4*	*79.80 to 58.00*	*E.L.*	*Main and tributaries from the headwaters to the confluence with Furnace Creek - except Story Creek.*
Storey Creek	*4A-4*	*10.30 to 0.00*	*W.Q.-DO*	*Main Only.*
Pigg River	*4A-4*	*58.00 to 47.60*	*W.Q.-DO*	*Main only from Furnace Creek to the confluence with Powder Mill Creek.*
Pigg River	*4A-4*	*47.60 to 0.00*	*E.L.*	*Main and tributaries.*

Roanoke River	4A-5	158.20 to 140.54	E.L.	Main and tributaries. (Leesville Lake)
Goose Creek	4A-5	39.30 to 0.00	E.L.	Main and tributaries.
Little Otter River	4A-5	17.15 to 14.36	E.L.	Main and tributaries to confluence with Johns Creek.
Johns Creek	4A-5	4.00 to 0.00	W.Q.-DO	Main only.
Little Otter River	4A-5	14.36 to 0.00	W.Q.-DO	Main only from confluence with Johns Creek to Big Otter River.
Big Otter River	4A-5	42.68 to 0.00	E.L.	Main and tributaries.
Roanoke River	4A-5	140.54 to 123.79	E.L.	Main and tributaries.

Legend:

DO = Dissolved Oxygen

P = Phosphorus

FC = Fecal Coliform

T = Temperature

TABLE B~~5~~ - WASTELOAD ALLOCATIONS BASED ON EXISTING DISCHARGE POINT 1 UPPER ROANOKE RIVER SUBAREA

HUC 03010101

MAP LOCATION	STREAM NAME	SEGMENT NUMBER	SEGMENT CLASSIFI-CATION STANDARDS	MILE to MILE[2]	DISCHARGER	VPDES PERMIT NUMBER	VPDES PERMIT LIMITS BOD_5[4] kg/day	303(e) 3/ WASTELOAD ALLOCATION BOD_5[4] kg/day	TOTAL MAXIMUM DAILY LOAD W.Q. SEGMENTS BOD_5[4] kg/day

A	S.F. Roanoke R.	4A-1	E.L.-P WQ-FC	6.33-	Montgomery County PSA Shawsville STP	VA0024031	11.40	Secondary	
B	S.F. Roanoke R.	4A-1	E.L.-P	0.76-	Montgomery County PSA Elliston-Lafayette STP	VA0062219	28.00	Secondary	
C	X-trib to N.F. Roanoke R.	4A-1	E.L.-P	0.25-	Lonnie J. Weddle Residence	VA0073229	0.03	Secondary	
D	X-trib to N.F. Roanoke R.	4A-1	E.L.-P	0.25-	James Luther Residence	VA0073237	0.05	Secondary	
E	N.F. Roanoke R.	4A-1	E.L.-P	17.57-	Blacksburg Country Club, Inc.	VA0027481	4.00	Secondary	
1	Cedar Run	4A-1	E.L.-P	2.64- 0.46-	Wolverine Gasket Co., Inc	VA0052825	N/A	Secondary	
F	Cedar Run	4A-1	E.L.-P	0.40-	Wendell Hensley Residence	VA0066737	0.07	Secondary	
G	X-trib to Cedar Run	4A-1	E.L.-P	0.20-	Ivan Gary Bland Residence	VA0077488	0.05	Secondary	
H	Cedar Run	4A-1	E.L.-P	0.46-	Velma D. Compton Residence	VA0080021	0.06	Secondary	
2	N.F. Roanoke R.	4A-1	E.L.-P	15.21-	Federal Mogal, Inc.	VA0001619	N/A	Secondary	

I	N.F. Roanoke R.	4A-1	E.L.-P	0.76-	VDOT-I-81 Ironto Rest Area	VA0060941	2.80	Secondary	
3	X-trib to Roanoke R.	4A-2	E.L.-P	1.04-	Salem Stone Corp.	VA0006459	N/A	Secondary	
4	Roanoke R.	4A-2	W.Q.-DO,P	218.13 -	Roanoke Electric Steel Salem Plant	VA0001333	N/A	N/A	N/A
5	Roanoke R.	4A-2	W.Q.-DO,P	216.33 -	Koppers Co. Inc.	VA0001341	N/A	N/A	N/A
6	Snyders Br.	4A-2	E.L.-P	0.17-	Graham - White Mfg., Inc.	VA0030031	N/A	Secondary	
7	Bowmans's Br.	4A-2	E.L.-P.	0.20-	Mechanical Development Co., Inc.	VA002311	N/A	Secondary	
8	Roanoke R.	4A-2	W.Q-DO,P	212.61 -	Rowe Furniture Corp., Inc.	VA0024716	N/A	N/A	N/A
9	Roanoke R.	4A-2	W.Q.L.-DO,P	212.39 -	Valleydale Packers, Inc.	VA0001317	N/A	N/A	N/A
J	X-trib to Mason Cr.	4A-2	E.L.-P.	0.21	Gary L. Bryant Residence	VA0063398	0.07	Secondary	
K	Mason Cr.	4A-2	E.L.-P.	0.30-	Roanoke County Schools Mason Cove E.S.	VA0027545	0.45	Secondary	

L	Mason Cr.	4A-2	E.L.-P.	7.79-	Roanoke Moose Lodge 284	VA00 77895	0.53	Secondary	
M	Gish Br.	4A-2	E.L.-P.	1.80-	Eddie Miller Residence	VA0076759	0.06	Secondary	
10	Roanoke R.	4A-2	W.Q.-DO,P	209.58 -	Virginia Plastics Co., Inc.	VA0052477	N/A	N/A	N/A
10	X-trib to Mud Lick	4A-2	E.L.-P.	0.47-	Virginia Plastics Co., Inc.	VA002477	2.70	Secondary	
11	Peters Cr.	4A-2	W.Q.-DO,P	0.26-	Roanoke Electric Steel Roanoke Plant	VA0001589	N/A	N/A	N/A
12	Roanoke R.	4A-2	W.Q.-DO,P	207.60 -	Fuel Oil & Equipment Co., Inc.	VA0001252	N/A	N/A	N/A
13	Roanoke R.	4A-2	W.Q.-DO,P	207.24	Norfolk & Western Railways Co., Inc.-Schaffers Crossing	VA0001597	N/A	N/A	N/A
13	Horton Cr.	4A-2	E.L.P.	0.41-	Norfolk & Western Railways Co., Inc.-Schaffers Crossing	VA0001597	N/A	Secondary	
N	Roanoke	4A-2	W.Q.-DO,P	201.81 -	Roanoke City Regional STP	VA0025020	[~~662.00~~ 1173.00]	[~~757.40~~ 1173.00]	[~~927.72~~ 1352.00]

14	Carvin Cr.	4A-2	E.L.-P.	5.77-	Roanoke City Carvin Cove WTP	VA0001473	N/A	Secondary	
15	Carvin Cr.	4A-2	E.L.-P.	4.98-	ITT Electro-Optical Products Division	VA0020443	N/A	Secondary	
16	Tinker Cr	4A-2	W.Q.-DO,P,FC	5.17	Elizabeth Arden, Inc.	VA0001635	N/A	N/A	N/A
17	Tinker Cr	4A-2	W.Q.-DO,P,FC	1.45	Exxon Company, USA, Inc.	VA0079006	N/A	N/A	N/A
18	Lick Run	4A-2	E.L.-P.	3.51-	Norfolk & Western Railways Co., Inc.-Schaffers Crossing	VA0001597	N/A	Secondary	
18	Lick Run	4A-2	E.L.-P.	1.12-	Norfolk & Western Railways Co., Inc.-East End Shops	VA0001511	N/A	Secondary	
O	X-trib to Glade Cr	4A-2	E.L.-P.	1.60-	R.W. Bowers Commerical Dev.	VA0068497	0.06	Secondary	
P	X-trib to Glade Cr	4A-2	E.L.-P.	1.24-	Geraldine B. Carter Residence	VA0076546	0.06	Secondary	

Q	Coyner Spring Br.	4A-2	E.L.-P.	0.50-	Roanoke City-Coyner Springs STP	VA0021121	0.80	Secondary	
R	Back Cr.	4A-2	E.L.-P.	16.14-	Roanoke Sanitary Disposal Corp.-Starkey STP	VA0027103	45.40	Secondary	
19	[Back Cr].	4A-2	E.L.-P.	1.48-	Shell Oil Co., Inc.	VA0001431	N/A	Secondary	
S	X-trib to Back Cr.	4A-2	E.L.-P.	1.00-	Suncrest Development Co., Inc.-Suncrest Heights STP	VA0028711	2.30-	Secondary	
20	Falling Cr.	4A-2	E.L.-P.	7.70-	Roanoke City-Falling Cr. WTP	VA0001465	N/A	Secondary	
T	X-trib to Falling Cr.	4A-2	E.L.-P.	0.32-	Oak Ridge Mobile Home Park	VA0078392	3.40	Secondary	
U	Nat Branch	4A-2	E.L.-P.	0.59-	Bedford County Schools Stewartsville E.S.	VA0020842	0.50	Secondary	
V	Roanoke R.	4A-2	W.Q.-DO,P	182.76 -	L. Jack & Vicki S. Browning Residence	VA00 67229	0.07	0.07	170.07

W	X-trib to Little Cr.	4A-3	E.L.-P.	0.16-	Robert R. Walter Residence	VA0074004	0.05	Secondary	
X	X-trib to Teals Cr.	4A-3	E.L.-P.	0.96-	Franklin County Schools Boones Mill E.S.	VA0060291	.50	Secondary	
21	Black[]water R.	4A-3	E.L.-P.	40.05-	Rocky Mount Town Black[]water R. WTP	VA0055999	N/A/	Secondary	
Y	Blackwater R.	4A-3	E.L.-P.	38.95-	Franklin Manor Home for Adults	VA006755[5]	1.70	Secondary	
Z	X-trib to Blackwater R.	4A-3	E.L.-P.	1.15-	Franklin County Schools Rocky Mount E.S.	VA0060283	0.80	Secondary	
AA	X-trib to Maggodee Cr.	4A-3	E.L.-P.	0.28-	Boones Mill Town- Sand Filter	VA0078401	0.50	Secondary	
AB	Maggodee Cr.	4A-3	E.L.-P.	14.51	Boones Mill Town STP	VA0067245	3.40	Secondary	
AC	Roanoke R.	A-5	E.L.- P.	158.09 -	APCO- SML Dam Visitors Center	VA0074179	0.57	Secondary	

AD	Roanoke R.	4A-5	E.L.-P.	157.49 -	APCO- SML Dam Picnic Area	VA0074217	0.57	Secondary	
AE	Storey Cr.	4A-4	W.Q.-DO	9.78-	Ferrum Water & Sewage Authority Ferrum STP	VA0029254	14.20	14.20	14.60
23	X-trib to Pigg R.	4A-4	E.L.	1.28-	The Lane Company- Rocky Mount Plant	VA0098438	N/A	Secondary	
22	Pigg R.	4A-4	W.Q.-DO	57.24-	Ronile, Inc.	VA0076015	14.80	14.80	34.98
AF	Pigg R.	4A-4	W.Q.-DO	56.72-	Rocky Mt. Town Existing STP	VA0023728	133.00	133.00	153.18
				52.68-	Rocky Mt. Town Proposed STP	VA0085952		133.00	
24	X-trib to Powder Mill Cr.	4A-4	E.L.	1.64-	Rocky Top Wood Preservers Inc.	VA0080071	N/A	Secondary	
AG	Willow Cr.	4A-4	E.L.	1.30-	Town & Country Subdivision	VA0028657	4.50	Secondary	
25	S.F. Goose Cr.	4A-5	E.L.	6.77-	Blue Ridge Stone Corp.- Blue Ridge Plant	VA0050636	N/A	Secondary	

AH	X-trib to Goose Cr.	4A-5	E.L.	0.66-	Woodhaven Village, Inc.	VA0074870	0.50	Secondary	
26	X-trib to Goose Cr.	4A-5	E.L.	0.08	Conoco, Inc.	VA0055328	N/A	Secondary	
27	S.F. Goose Cr.	4A-5	E.L.	2.58-	Chevron USA, Inc.	VA0026051	N/A	Secondary	
28	X-trib to Goose Cr.	4A-5	E.L.	0.20-	Phillips Petroleum Co., Inc.	VA0051446	N/A	Secondary	
29	X-trib to Goose Cr.	4A-5	E.L.	0.04-	Amoco Oil Co., Inc.	VA0054577	N/A	Secondary	
29	X-trib to Goose Cr.	4A-5	E.L.	0.06-	Amoco Oil Co., Inc.	VA0054577	N/A	Secondary	
29	X-trib to Goose Cr..	4A-5	E.L.	0.14-	Amoco Oil Co., Inc.	VA0054577	N/A	Secondary	
30	S.F. Goose Cr.	4A-5	E.L.	2.30-	Colonial Pipeline Co., Inc.	VA0051721	N/A	Secondary	
AI	X-trib to N.F. Goose Cr..	4A-5	E.L.	0.20-	Bedford County Schools-Montvale E.S.	VA0066206	0.42	Secondary	
31	S.F. Goose Cr.	4A-5	E.L.	2.18-	Texaco, Inc.	VA0001490	N/A	Secondary	
AJ	X-trib to Day Cr.	4A-5	E.L.	1.79-	Camp Virginia Jaycee Inc.	VA0060909	1.70	Secondary	
AK	X-trib to Reed Cr.	4A-5	E.L.	0.84-	Robincrest Mobile Home Park	VA0078413	2.70	Secondary	

AL	X-trib to Wolf Cr.	4A-5	E.L.	0.95	Bedford County Schools Thaxton E.S.	VA0020869	0.30	Secondary	
AM	X-trib to Shoulder Run	4A-5	E.L.	0.95-	Bedford County Schools-Staunton River H.S.	VA0068063	2.90	Secondary	
AN	Goose Cr.	4A-5	E.L.	19.55-	Camp Tipacanoe Inc.	VA0068063	1.10	Secondary	
AO	Mattock Cr.	4A-5	E.L.	3.76-	VDOC- Filed Unit #24 Smith Mtn. Lake	VA0023515	2.40	Secondary	
32	Staunton (Roa.) R.	4A-5	E.L.	129.72 -	Burlington Industries-Klopman Division Altavista Plant	VA0001678	530.00	Secondary	
33	Staunton (Roa.) R	4A-5	E.L.	128.96 -	Altavista Town WTP	VA0027189	N/A	Secondary	
34	Staunton (Roa.) R	4A-5	E.L.	128.94 -	The Lane Co., Inc. Altavista Plant	VA0001520	N/A	Secondary	
	Staunton (Roa.) River	4A-5	E.L.		Town of Hurt (Proposed)			Secondary	
AP	Staunton (Roa.) R	4A-5	E.L.	127.96 -	Altavista Town STP	VA0020451	204.00	Secondary	

35	Staunton (Roa.) R	4A-5	E.L.	126.39 -	Ross Labortories	VA0001716	66.20	Secondary	
36	X-trib to Big Otter R.	4A-5	E.L.	1.63-	Bedford City WTP	VA0001503	N/A	Secondary	
37	Roaring Run	4A-5	E.L.	3.26-	Gunnoe Sausage Co., Inc.	VA0001449	0.55	Secondary	
AQ	X-trib to Big Otter R.	4A-5	E.L.	1.15-	Bedford County Schools Otter River E.S.	VA0020851	0.40	Secondary	
38	X-trib to Little Otter R.	4A-5	E.L.	0.76-	Wheelbrator Frye, Inc.	VA0058033	N/A	Secondary	
AR	X-trib to Little Otter R.	4A-5	E.L.	0.42-	Bedford County Schools – Liberty H.S.	VA0020796	2.80	Secondary	
AS	Little Otter R.	4A-5	W.Q.-DO	14.36-	Bedford City STP	VA0022390	52.80	52.80	64.15
39	Johns Cr.	4A-5	W.Q.-DO	2.61-	Golden West Foods, Inc.	VA0056430	N/A	N/A	N/A
AT	X-trib to Wells Cr.	4A-5	E.L.	2.22-	Bedford Country Schools Body Camp E.S.	VA0020818	0.40	Secondary	
AU	X-trib to Big Otter R.	4A-5	E.L.	1.20-	David T. Callahan Residence	VA0080667	0.57	Secondary	

AV	X-trib to Buffalo Cr	4A-5	E.L.	0.67-	Bedford Country Schools New London Academy	VA0020826	0.50	Secondary	
AW	Buffalo Cr	4A-5	E.L.	12.42-	Alum Springs Shopping Center	VA0078999	4.50	Secondary	
40	Big Otter R.	4A-5	E.L.	11.74-	Campbell Country USA (Proposed WTP)	VA0078[6]46	N/A	Secondary	
BF	X-trib to Big Otter R	4A-5	E.L.	1.07-	Otterwood Grocery Store	VA0082732	0.05	Secondary	
AX	Flat Cr.	4A-5	E.L.	13.34-	Virginia Track & Equipment Corp.	VA0068594	0.03	Secondary	
BD	X-trib to Flat Cr.	4A-5	E.L.	0.68	Montague Betts Co, Inc.	VA0075116	0.45	Secondary	
41	Flat Cr.	4A-5	E.L.	12.62-	Blue Ridge Stone Corp. Lynchburg Plant	VA0050628	N/A	Secondary	
AY	X-trib to Flat Cr.	4A-5	E.L.	0.12-	Winebarger Corp	VA0074969	0.70	Secondary	
AZ	Smith Br.	4A-5	E.L.	2.82-	Briarwood Village	VA0031194	2.70	Secondary	
BE	X-trib to Flat Cr.	4A-5	E.L.	0.88-	Ralph P. Shepard Residence	VA0081591	0.05	Secondary	

BA	X-trib to Flat Cr.	4A-5	E.L.	1.16-	Phillips, Arthur, Phillips Tract #6	VA0068098	0.05	Secondary	
BB	X-trib to Flat Cr.	4A-5	E.L.	1.12-	Kyle E. & Annette D. Shupe Residence	VA0068080	0.05	Secondary	
BC	X-trib to Flat Cr.	4A-5	E.L.	1.08-	Wayne E. & Sherina D. Shupe Residence	VA0068071	0.05	Secondary	
BG	X-trib to Troublesome Cr.	4A-5	E.L.	2.15-	Kelly Convenience Store	VA0067078	0.11	Secondary	

NOTES:

N/A - Not Applicable - currently no BOD5 limits or wasteload have been required by the VPDES Permit. Should BOD5 be required a WQMP amendment would be necessary for Water Quality Limited Segments only.

1 Secondary Treatment levels are required in Effluent Limited segments. Quantities listed for Water Quality Limited segments represent wasteload allocation.

2 Ending river miles are not available at this time.

3 These allocations represent current and original (1976 WQMP) modeling with the exception of the Altavista segment, river miles 130.00 to 119.00 on the Staunton (Roanoke) River. Future revisions may be necessary based on State Water Control Board approved modeling.

4 The VPDES Permit Limit presented here is a future loading, not the current VPDES Permit limitation. The permitting process will determine the current loading not to exceed 1173 kg/d WLA established by this plan.

5. The current permitted BOD_5 loading for this facility is 30 mg/l monthly average and 45 mg/l daily maximum. Based on maximum flowes reported by this facility for 1987-88 (0.389 mgd) the resulting wasteload is 66.2 kg/d. Revocation of the permit has been requested by the permittee.

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

A. Total maximum Daily Load (TMDLs).

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

9 VAC 25-720-90 Sewerage Service Areas.

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.*
11 T	*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.*
24 T	*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 25-720-100. Chowan River- Dismal Swamp River Basin (Reserved).

9 VAC 25-720-110. Chesapeake Bay – Small Coastal – Eastern Shore River Basin.

A. Total maximum Daily Load (TMDLs).

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

Small Coastal and Chesapeake Bay-

TABLE B1 - CURRENT STREAM SEGMENT CLASSIFICATION

Segment No.	*Name*	*Current State [Class]*
7-12A	*Pocomoke Sound*	*EL*
7-12B	*Messongo Creek*	*EL*
7-12C	*Beasley Bay*	*EL*
7-12D	*Chesconessex Creek*	*EL*
7-13	*Onancock Creek*	*WQ*
7-14	*Pungoteague*	*WQ*
7-12E	*Nandua Creek*	*EL*
7-15	*Occohannock Creek*	*WQ*
7-12F	*Nassawadox Creek*	*EL*
7-12G	*Hungars Creek*	*EL*
7-12H	*Cherrystone Inlet*	*EL*
7-12I	*South Bay*	*EL*
7-12J	*Tangier Island*	_____
7-11A	*Chincoteague*	*EL*
7-11B	*Hog Bogue*	*EL*
7-11C	*Metomkim Bay*	*EL*
7-11D	*Machipongo River*	*EL*
7-11E	*South Ocean*	*EL*

Small Coastal and Chesapeake Bay

TABLE B2 - EASTERN SHORE WASTELOAD ALLOCATIONS

		INTERIM WASTELOAD ALLOCATIONS[1]			*FINAL WASTELOAD ALLOCATIONS*		
		(Current Permit Limits)					
NAME	*RECEIVING STREAM OR ESTUARY*	*BOD_5 (lb/d)*	*SUSPENDED SOLIDS (lb/d)*	*OIL & GREASE (lb/d)*	*BOD_5 (lb/d)*	*SUSPENDED SOLIDS (lb/d)*	*OIL & GREASE (lb/d)*
Commonwealth of Va. Rest Area	*Pitts Cr.*	*4.3*	*4.3*	*--*	*4.3*	*4.3*	*--*
Edgewood Park	*Bullbegger Cr.*	*0.80*	*0.80*	*--*	*0.80*	*0.80*	*--*
Holly Farms	*Sandy Bottom Cr.*	*167(3)*	*167(3)*	*10 mg/l*	*Stream survey/model and determination of final wasteload allocations planned for the summer of 1980.*		
Taylor Packing Company	*Messongo Cr.*	*7006(3)*	*13010(3)*	*--*	*Stream survey/model was run previously. No change in permit anticipated.*		
No. Accomack E.S.	*Messongo Cr.*	*1.8*	*1.4*	*--*	*1.8*	*1.4*	*--*
Messick & Wessels Nelsonia	*Muddy Cr.*	*30mg/l*[4]	*30mg/l*[4]	*--*	*Interim wasteload allocations may be changed based on BAT guidance.*		
Whispering Pines Motel	*Deep Cr.*	*4.8*	*4.8*	*--*	*4.8*	*4.8*	*--*
Town of Onancock	*Onancock Cr.*	*21*	*21*	*--*	*21*	*21*	*--*
Messick & Wessels	*Onancock Cr.*	*30mg/l*[4]	*30mg/l*[4]	*--*	*Interim wasteload allocations may be changed based on guidance.*		

So. Accomack E.S.	Pungoteague Cr.	1.8	1.4	--	1.8	1.4	--
A & P Exmore	Nassawadox Cr.	0.38	0.38	--	0.38	0.38	--
Norstrom Coin Laundry	Nassawadox Cr.	60mg/l[4] max.	60mg/l[4] max.	--	Interim wasteload allocation may be changed based on BAT guidance.		
NH-Acc. Memorial Hospital	Warehouse Cr.	12.5	12.5	--	21.5	12.5	--
Machipongo E.S. & H.H. Jr. High	Trib. To Oresbus Cr.	5.2	5.2	--	5.2	5.2	--
Town of Cape Charles	Cape Charles Harbor	62.6	62.6	--	62.6	62.6	--
America House	Chesapeake Bay	5	5	--	5	5	--
U.S. Coast Guard Chesapeake Bay	Chesapeake Bay	--	--	10/mgl[5]	--	--	10/mgl[5]
U.S. Government Cape Charles AFB	Magothy Bay	Currently No Discharge					
Exmore Foods (Process Water)	Trib. To Parting Cr.	200	100	--	Stream survey/model and determination of final wasteload allocations planned for the summer of 1980.		
Exmore Foods (Sanitary)	Trib. To Parting Cr.	30mg/l[5]	30mg/l[5]	--	30mg/l[5]	30mg/l[5]	--
Perdue Foods (process water)	Parker Cr.	May-Oct 275 367 Nov-Apr. 612 797	--	--	Interim Permit in process. Stream survey/models were run. No substantial change in permit anticipated.		

Perdue Foods (parking lot)	*Parker Cr.*	*30mg/l(5)*	*30mg/l(5)*	*--*	*30mg/l(5)*	*30mg/l(5)*	*--*
Accomack Nursing Home	*Parker Cr.*	*2.7*	*2.6*	*--*	*2.7*	*2.6*	*--*
U.S. Gov't NASA Wallops Island	*Mosquito Cr.*	*75*	*75*	*--*	*75*	*75*	*--*
U.S. Gov't NASA Wallops Island	*Cat Cr.*	*1.25*	*1.25*	*--*	*1.25*	*1.25*	*--*
F & G Laundromat	*Chincoteague Channel*	*10*	*4.8*	*--*	*Interim wasteload allocations may be changed based on BAT guidance.*		
U.S. Coast Guard	*Chincoteatue Channel*	*--*	*--*	*15mg/l (max.)*	*--*	*--*	*15mg/l (max.)*
Virginia-Carolina Seafood	*Chincoteague Bay*	*342*	*264*	*5.5*	*342*	*264*	*5.5*
Reginald Stubbs Seafood Co. (VA0005813)	*Assateague Channel*	*--*	*20*	*95*	*--*	*20*	*95*
Reginald Stubbs Seafood Co. (VA00056421)	*Assateague Channel*	*--*	*20[1]*	*98*	*--*	*20.4(2)*	*98*
Shreaves	*Chincoteague Bay*	*--*	*16 (2)*	*1.4(2)*	*--*	*16 (2)*	*1.4(2)*
Chincoteague Seafood	*Chincoteague Bay*	*342*	*264*	*5.5*	*342*	*264*	*5.5*

TABLE B3 - EXISTING OR POTENTIAL SOURCES OF WATER POLLUTION

Location No.	Name	Receiving Estuary	Stream	Flow (MGD)	CBOD (mgl/#D)	NBOD (mgl/#D)	Total Suspended Solids (mgl/#D)	D.O. (mgl)	FC (MPN/ 100ml)	Treatment/ Operation
1	Comm. Va. Rest Area	Pocomoke Sound	Pitts Cr.	.003	7/0.18		10/0.3	7.5	1	Extended aeration. Sec. Holding pond, CL_2
2	H.E. Kelley	Pocomoke Sound	Pitts Cr.							Currently no discharges. Out of business
3	Edgewood Park	Pocomoke Sound	Bullbegger Creek	.006(3)	16/0.8(2)		16/0.8(2			PRI, CL_2, Holding Pond
4	Holly Farms	Pocomoke Sound	Sand Bottom Creek	0.18	6/40		15/100	8.0	100	Aerated Lagoons, CL_2
5	J.W. Taylor	Messongo Creek	Trib. To Messongo	.001	60/50		150/125	8.0		Aerated Lagoons
6	No. Accomack E.S.	Messongo Creek	Trib. To Messongo	.005	22/0.9		30/1.3	9.0		Sec., Septic Tank, Sand Filter Holding Pond
7	Messick & Wessells-Nelsonia	Beasly Bay	Muddy Creek	.005	125/5.2		100/4.2			Sec., Extended Aeration
8	Willets Laundromat	Beasly Bay	Hunting Creek							Prl., Septic Tank
9	Byrd Food	Beasly Bay								No discharge industry

10	Whispering Pines Motel	Beasly Bay	Deep Creek	.009	25/1.9		30/2.3	6.0		Sec., Extended Aeration Holding Pond, CL_2
11	Town of Onancock	Onancock Creek	North Fork	.19	2/3.2		3/ 4.8	7.5	3	Primary, Primary Settling Sludge Digestion, CL_2
12	Messick & Wessels-Onley	Onancock Creek	Joynes Branch	.005	100/4.2		150/6.3			Sec., Extended Aeration
13	So. Accomack E.S.	Pungoteague	Trib. To Pungoteague		24/1.8(2)		19/1.4(2)			Sec., Septic Tank, Grease Trap, Sand Filter, Holding Pond. No discharge in 4 yrs.
14	Great Atlantic & Pacific Tea Company	Nassawadox	Nassawadox	.001	140/1.2		150/1.3		6.5	Sec., Extended Aeration CL_2
15	Norstrom Coin Laundry	Nassawadox	Trib. To Nassawadox	.008						Sec., Extended Aeration, permit in process
17	N.H.-Acc. Memorial Hospital	Nassawadox	Warehouse Creek	.03	25/1.6		35/2.2	6.5	750	Secondary Aerated Lagoon, CL_2 Holding pond Stab-Lagoon
18	Machipongo E.S. & N.H. Jr. High School	Hungars Creek	Trib. To Oresbus	.03(1)	30/5.2(2)		30/5.2(2)			Sec., Stab-Lagoon, Holding Pond no discharge in 4 yrs.

19	B & B Laundromat	Cherry Stone Inlet	Old Castle Creek							Prl. Septic Tank w/discharger
20	KMC Foods, Inc.	Cherry Stone Inlet								No-Discharge industry
21	Herbert West Laundromat	Cherry Stone Inlet	Kings Creek							Prl. Septic Tank w/Discharger
22	Town of Cape Charles	Cape Charles Harbor	Cape Charles Harbor	.165(2)	290/400(3)		139/192(3)			Raw Sewage, Sewage Treatment to be completed by 1982
23	American House Inn	Chesapeake Bay	Chesapeake Bay		30/5(2)		30/5(2)			
24	U.S. Coast Guard	Chesapeake Bay	Chesapeake Bay	.001(2)	30/			5.0(2)	200(2)	Bilgewater
25	U.S. Gov't Cape Charles AFS	Magothy	Magothy	.001(2)				5.0(3)		Sec., CL_2, Aerated Lagoon, currently no-discharge
27	Exmore Frozen Foods	Machipongo	Trib. To Parting Cr.	.56	29/135		18/84	6.5		Grass Bays, Screening
28	Exmore Foods (Domestic)	Machipongo	Trib. To Parting Cr.	.02	5/0.8		9/1.5			Septic Tank, Sand Filter
30	Perdue Foods	Metomkin Bay	Parker Creek	1.7	11/156		15/213	6.5	150	Sec., Aerated Lagoon, Holding Pond, CL_2
31	Perdue Foods	Metomkin Bay	Parker Cr.	.01(4)			15/1.3			

32	Accomack Co. Nursing Home	Metomkin Bay	Parker Cr. North Fork	.011	20/1.8		28/2.6	6.5	100	Sec., Extended Aeration, Holding Pond, CL_2
33	U.S. Gov't NASA (Wallops Island)	Hog Creek	Cat Creek	.005	30/		30/			Sec., Stab., Pond, Holding Pond, CL_2
34	Robo Automatic Car	Chincoteague Channel	Little Simoneaton							
35	U.S. Gov't NASA	Chincoteague Channel	Mosquito Creek	.105	$10.6/9.3_{(3)}$	112/28	2.0/1.8			Sec., Trickling Filter
36	Trail's End Rec. Vehicle Dev.	Chincoteague Channel	Trib to Mosquito Cr.							Septic Tank and Drainfield
37	Coin-Op Laundromat	Chincoteague Channel	Chincoteague Channel							No discharge
38	F & G Laundromat	Chincoteague Channel	Chincoteague Channel	.005						
39	U.S. Coast Guard	Chincoteague Channel	Chincoteague Channel	$.001^{(2)}$			$30/0.2^{(2)}$		$200^{(2)}$	Discharge-Bilgewater
40	Phillip Custis	Ramshorn Bay								Spray Irrigation, no Discharge
43	Boggs (Melfa)	Nickowampus Creek								Septic tank waste lagoons, no discharge
44	Blake (Greenbush)	Deep Creek								Septic tank waste lagoon, no discharge

45	Cherrystone Campground	Kings Creek or Cherrystone Inlet								Stab-Lagoon, Holding pond, no discharge
46	Wallops Sanitary Landfill									Solid waste disposal site, no discharge
47	Chincoteague Dumpsite									Solid waste disposal site, no discharge
48	Bob Town Sanitary Landfill									Solid waste disposal site, no discharge
49	Northampton Sanitary Landfill									Solid waste site, no discharge
52	Dorsey's Seafood Market	Chincoteague								Oysters[5]
54	Va-Carolina Seafood Company, Inc.	Hog-Bogue					1152[2] Clams 68[2] Oysters 7.0[2] Scallops			Surf Clams, Oysters, Scallops
55	Chincoteague Island Oyster Farm	Chincoteague								(Oyster-Boat Operation (grows oysters & clams from larvae)[6]

	Reginald Stubbs Seafood Company	Assateague Channel		.002(4)	4.2		2.8			Oyster
58	Shreaves Bros.	Chincoteague		.002(4)	2.07		8.0			Oyster
60	Chincoteague Seafood Co.	Chincoteague		.063(4)	972		79.9			Surf-Clam
61	Ralph E. Watson Oyster Co.	Chincoteague		.003(4)	57		53			Oyster
62	McCready Bros. Inc.	Chincoteague								Oyster, no discharge
63	Wm. C. Bunting	Chincoteague		.001(4)	12		4.8			Oyster
64	Carpenters Seafood	Chincoteague		.001(4)	4.1`		2.1			Oyster
64a	Burtons Seafood, Inc.	Chincoteague		.006(4)	10.3		.35			Oyster shell stock deal no discharge
69	Jones Bros. Seafood	Chincoteague	Sheepshead Cr.							Oyster & Clams
70	W.E. Jones Seafood	Chincoteague	Sheepshead Creek				46.4(2)			Oyster & Clams
71	Conner & McGee Seafood	Chincoteague	Sheepshead Creek							Oyster & Clams (6)`1
72	Hills Oyster Farm	Chincoteague								Oyster & Clams (5)

73	Thomas E. Reed Seafood	Chincoteague	Deep Hole Creek							Oyster & Clams [6]
74	Mears & Powell	Metomkin								Oyster-Building, also used to clean fish [5]
75	Wachapreague Seafood Company	Metomkin	Finney Creek	.036[4]			144			Sea Clam
76	George D. Spence and Son	Machipongo								Crab Shedding[6]
77	George D. Spence and Son	Machipongo								Crab Picking, no discharge
78	George T. Bell	Machipongo								No Discharge, Oyster
79	George D. Spence and Son	Machipongo	Upshur Bay							Oyster[6]
80	Peters Seafood	Machipongo								Oyster[6]
81	J.E. Hamblin	Machipongo								Oyster, No discharge
83	Nathan Bell Seafood	Machipongo								Clams, Hard[5]
84	John L. Marshall Seafood	Machipongo								Clams[5]

85	American Original Foods, Inc.	Machipongo	Parting Creek	.151[4]	2632		1337			
86	Harvey & Robert Bowen	Machipongo	Parting Creek	.0006[4]	6.2		1.7			Oyster
87	H.M. Terry	Machipongo	Parting Creek	.0004[4]	3.3		.62			Oyster
89	Webb's Island Seafood	South Ocean Area								Clams[6]
90	Cliff's Seafood	South Ocean Area	Mockhorn Bay							Oyster & Clam [6]
92	H. Allen Smith	South Ocean Area		.037[4]	213		522			Sea Clam
94	C & D Seafood, Inc.	South Ocean Area	Oyster Harbor	.04[4]	427		204 sea clam 34[2] oyster			Sea Clam, Oyster
95	B.L. Bell & Sons	South Ocean Area	Oyster Harbor	.001[4]	12		.9			Oyster
98	Lance Fisher Seafood Co.	Pocomoke		.02[4]	38		12.8			Oyster and Clam
99	Fisher & Williams/Lester Fisher	Messongo								Building used to shed soft crabs[5]
100	Grady Rhodes Seafood	Messongo								Sold business, Building used to shed soft crabs[5]
101	Bonowell Bros.	Messongo	Pocomoke Sound	.001[4]	12		2.5			Oyster

102	John H. Lewis & Co.	Messongo	Starling Creek							Oyster SS only, no discharge
103	Eastern Shore Seafood	Beasly								Crab, no discharge
106	Ashton's Seafood, Inc.	Pungoteague								Shell stock dealer-no discharge
107	Nandua Seafood Co.	Nandua		.0001[4]	.2		.9			Crab
108	A.M. Acuff	Cherrystone								Building used for storage, no discharge
110	D.L. Edgerton Co.	Cherrystone	Mud Creek							Conch. In operation. Retort drains overboard & fish wash-down[6]
111 & 112	Tangier Island Seafood, Inc.	Tangier								Crab[5]
113	Tangier	Chesapeake Bay								1000 KW Power Station
114	Chincoteague	Chincoteague Channel								2100 KW Power Station
115	Parksley									2400 KW Power Station
116	Tasley									1400 KW Power Station

117	Bayview									10,000 KW Power Station
118	Cape Charles	Cape Charles Harbor								1200 KW Power Station
119	Burdick Well & Pump Company									Holding Pond, no discharge
120	Marshall & Son Crab Company	Messongo Cr.								Crab Shedding(6)
[]	Linton & Lewis Crab Co.	Pocomoke Sound								Crab Shedding(6)
122	D.L. Edgerton	Chincoteague								Fish Washdown(6)
123	Evans Bros. Seafood Co.	Pocomoke Sound								Crab Shedding(6)
124	Stanley F. Linton	Messongo	Starling Cr.							Crab Shedding(6)
125	H.V. Drewer & Son	Messongo	Starling Cr.	.035(4) .018(4)	349 180		736-clam 198-oyster			Oyster & Clam
126	Chincoteague Fish Co., Inc.	Chincoteague Channel								Fish Washdown(6)
127	Chincoteague Crab Company	Assateague Channel			.18(2)		.54(2)			Crab & Crab Shedding
128	Aldon Miles & Sons	Pocomoke Sound								Crab Shedding(6)
129	Saxis Crab Co.	Messongo	Starling Cr.							Crab Shedding(6)

	Paul Watkinson SFD	Pocomoke Sound								Crab Shedding[6]
131	Russell Fish Co., Inc	Chincoteague Channel								Fish[6]
132	Mason Seafood Co.	Chincoteague Channel		.002[4]	7.7		13.7			Oysters

NOTE: [1] Water quality data taken from Discharge Monitoring Reports or special studies unless indicated.

[2] NPDES Permit limits given since the permit is new and discharge monitoring reports not yet available.

[3] Data from Accomack-Northampton Co. Water Quality Management Plan.

[4] Estimated.

[5] May need a permit--either company has not responded to SWCB letter or operation has just started up.

[6] No limits -- has an NPDES permit, but is not required to monitor.

9 VAC 25-720-120. York River Basin.

A. Total Maximum Daily Load (TMDLs).

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

TABLE B1 - RECOMMENDED STREAM SEGMENTS IN THE YORK RIVER BASIN

Segment Number	Classification	Name of River (Description)*
8-1	EL	North Anna River (main and tributaries except Goldmine Creek and Contrary Creek) R.M. 68.4-0.0
8-2	EL	Goldmine Creek
8-3	WQ	Contrary Creek (main only) R.M. 9.5-0.0
8-4	EL	South Anna River (main and tributaries) R.M. 101.2-97.1
8-5	EL	South Anna River (main only) R.M. 97.1-77.4

8-6	EL	South Anna River (main and tributaries) R.M.77.4-0.0
8-7	EL	Pamunkey River (main and tributaries) R.M. 90.7-12.2
8-8	WQ	Pamunkey River (main only) R.M. 12.2-0.0
8-9	EL	Mattaponi River (main and tributaries) R.M.102.2-10.2
8-10	EL	Mattaponi River (main only) R.M.10.2-0.0
8-11	WQ	York River (main only) R.M. 30.4-22.4
8-12	EL	York River (main and tributaries except King Creek and Carter Creek) –R.M. 22.4-0.0
8-13	EL	Carter Creek (main and tributaries) R.M. 5.4-2.0
8-14	EL	Carter Creek (main only) R.M. 2.0-0.0
8-15	EL	King Creek (main only) R.M.5.6-0.0
8-16	WQ	Condemned shellfish areas- Timberneck, Queens, and Sarah Creeks and portions of the main stream of the York River.

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

Source: Roy F. Western

TABLE B2 - WASTE LOAD ALLOCATIONS (IN LBS PER DAY)

POINT SOURCE	1977 WASTE LOAD[2]		MAXIMUM[7] DAILY LOAD		RECOMMENDED ALLOCATION			RAW WASTE LOAD AT 1995		REQUIRED & REMOVAL EFFICENCY 1995	
	$CBOD_5$	UBOD[1]	$CBOD_5$	UBOD	$CBOD_5$	UBOD	PERCENT RESERVE	$CBOD_5$	UBOD	$CBOD_5$	UBOD
Gordonsville	145	398	150	412	150	412	0	1950	2730	92	85
Louisa-Mineral	50	108	55	118	55	118	0	850	1150	93	90
Doswell	52	110	862[8]	1407[8]	690[8]	1125[8]	20	1080	1444	85(4)	71
Thornburg	63	150	68	162	68	162	0	1240	1690	94	90

Bowling Green	27	64	29	68	29	68	0	680	926	96	93
Ashland	160	303	235	559	188	447	20	2250	3825	92	88
Hanover (Regional STP)	170	437	280	820	280	820	0	5730	7930	96	90
Chesapeake Corp.	6400	8000	10445[5]	15000[5]	10445[5]	15000[5]	N/A	51700	64630	90	90
West Point	105	380	281[3]	1020	225	814	20	1000	1600	85[4]	66

[1]BOD is Ultimate Biochemical Oxygen Demand. Its concentration is derived by the following: BOD_5 /0.80+ 4.5(TKN)=(UBOD). NOTE: The amount of TKN utilized depends on the location in the basin.

[2]Projected for 1977 based on population projections.

[3]Recommended allocation based on BPCTCA effluent guidelines applied to raw waste loads at 2020.

[4]Minimum removal efficiency.

[5]Allocation based on BPCTCA effluent guidelines; amended by Minute 25, June 3-5, 1979 board meeting.

[6]Based on assumed influent characteristics.

[7]Assimilative capacity.

[8]Amended by Minute 1, August 17, 1978, board meeting.

Source: Roy F. Weston, Inc.

9 VAC 25-720-130. New River.

A. Total maximum Daily Load (TMDLs).

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

TABLE B1- SEWERAGE SERVICE AREAS

Map[1] No.	Locality	Receiving[2] Stream Classification	NPDES Limits[3] Flow (mgd)	BOD_5 (kg/day)	SS (kg/day)	Status of Applicable[4] 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*

[1]Discharges are shown on Plate 3.

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

[3]For existing sewage treatment facility.

[4]For 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 BOD_5 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*
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*
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 *20 APCO* *004* *401* *501* *006*	*BOD_5* *1.14*	*SS* *382* *1.14* *318*	*OIL & GREASE* *192* *159*	*IRON* *(1.0) MAX*	*COPPER* *(1.0) MAX*	
21 Burlington Industries *001*	*BOD_5* *346*	*SS* *354*	*PHENOLS* *1.7*	*SULFIDE* *0.9*	*ALUMINUM* *1.0*	
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*		

9 VAC 25-720-140. Delegation section.

The director or his designee may perform any action contained in this regulation except those prohibited by § 62.1-44.14 of the State Water Control Law.

Certified True and Accurate: _____

_____ Robert G. Burnley, Director, DEQ

Date: _____