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

A. Total maximum daily load (TMDLs).

TMDL #	Stream Name	TMDL Title	City/ County	WBID	Pollutant	WLA	Units
1.	Pheasanty Run	Benthic TMDL Reports for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins	Bath	I14R	Organic Solids	1,231.00	LB/YR
2.	Wallace Mill Stream	Benthic TMDL Reports for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins	Augusta	I32R	Organic Solids	2,814.00	LB/YR
3.	Montebello Sp. Branch	Benthic TMDL Reports for Six Impaired Stream Segments in the Potomac-Shenandoah and James River Basins	Nelson	H09R	Organic Solids	37.00	LB/YR
4.	Unnamed Tributary to Deep Creek	General Standard Total Maximum Daily Load For Unnamed Tributary to Deep Creek	Nottoway	J11R	Raw Sewage	0	GAL/YR
5.	Unnamed Tributary to Chickahominy River	Total Maxiumum Daily Load (TMDL) Development for the Unnamed Tributary to the Chickahominy River	Hanover	G05R	Total Phosphorus	409.35	LB/YR

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 POINT7

Stream Name	Segment Number	Classification	Mile to Mile	Significant Discharges	Total Assimilative Capacity of Stream BOD5 lbs/day	Wasteload Allocation BOD5 lbs/day2	Reserve BOD5 lbs/day5
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	102.03	238.0 (31%)
				Buena Vista STP		420.0	
Maury River	2-4	E.L.	1.2-0.0	Lees Carpets	790.0	425.03	290.0 (37%)
				Glasgow STP		75.0	
James River	2-5	W.Q.	271.5-266.0	Owens-Illinois	4,640.0	4,640.03	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		40.03	
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	19.36	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		88.03	
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	0.5	0.1 (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	50.311,12	50.111,12	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 (cBOD5).

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	Classification1	Mile to Mile	Significant Discharges	Total Assimilative Capacity of Stream BOD5 lbs/day	Wasteload2 Allocation BOD5 lbs/day	Reserve4 BOD5 lbs/day5
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	425.03	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%)

1Recommended classification.

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

3Load allocation based on published NPDES permit.

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

5Assimilative 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 POINT1

MAP LOCATION	STREAM NAME	SEGMENT NUMBER	SEGMENT CLASSIFICATION STANDARDS	MILE to2 MILE	DISCHARGER	VPDES PERMIT NUMBER	VPDES PERMIT LIMITS BOD5 kg/day	303(e)3 WASTELOAD ALLOCATION BOD5 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	4,195.004
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 STP7	VA0027979	22.70	22.70
M					D.S. Lancaster CC8	VA0028509	3.60	3.60
L					Selma STP9	VA0028002	59.00	59.00
10					The Chessie System10	VA0003344	N/A	N/A
N					Clifton Forge STP11	VA0002984	227.00	227.00
11					Lydall12	VA0002984	6.00	6.00
P					Iron Gate STP13	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	Cliftondale14 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 STP15 (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 BOD5 limits or wasteload have been imposed by the VPDES permit. Should BOD5 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 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	BOD5		NH3-N1		DO2		FLOW	BOD5		NH3-N1		DO2
	(mgd)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(mg/l)		(mgd)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(mg/l)
City of Richmond STP3	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	716	-	-	-	-
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 NH3-N values represent ammonia as nitrogen.

2 Dissolved oxygen limits represent average minimum allowable levels.

3 Richmond STP's BOD5 is permitted as CBOD5

TABLE B7 - WASTE LOAD ALLOCATIONS FOR THE YEAR 1990

	SUMMER (June-October)						WINTER (November-May)				
	FLOW	CBOD5		NH3-N1,3		DO2	CBOD5		NH3-N1		DO2
	(mgd)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(mg/l)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(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 NH3-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 ALLOCATION FOR THE YEAR 2000

	SUMMER (June-October)						WINTER (November-May)				
	FLOW	CBOD5		NH3-N1,3		DO2	CBOD5		NH3-N1		DO2
	(mgd)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(mg/l)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(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	10291	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 NH3-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	CBOD5		NH3-N1,3		DO2	CBOD5		NH3-N1		DO2
	(mgd)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(mg/l)	(lbs/d)	(mg/l)	(lbs/d)	(mg/l)	(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 NH3-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.

C. Nitrogen and phosphorus waste load allocations to restore the Chesapeake Bay and its tidal rivers.

The following table presents nitrogen and phosphorus waste load allocations for the identified significant dischargers ~~, the associated delivery factors used for trading or offset purposes,~~ and the total nitrogen and total phosphorus ~~delivered~~ waste load ~~allocation~~ allocations for the [~~*basin*~~ *listed facilities*]. ~~*These individual significant discharger waste load allocations may be revised through the watershed trading program contained in 9 VAC 25-720-30. The waste load allocation listed below for a*~~

~~*discharger, or the waste load allocation revised in accordance with 9 VAC 25-720-30, shall be achieved within four years following reissuance or modification of the discharger's VPDES permit, but in no case later than December 31, 2010.*~~

~~CBP Watershed Model Segment~~	Virginia Waterbody ID	Discharger Name	VPDES Permit No.	Total Nitrogen (TN) Waste Load Allocation (lbs/yr)	~~TN Delivery Factor~~	~~TN Waste Load Delivered Allocation (lbs/yr)~~	Total Phosphorus (TP) Waste Load Allocation (lbs/yr)	~~TP Delivery Factor~~	~~TP Waste Load Delivered Allocation (lbs/yr)~~
~~270~~	I37R	Buena Vista STP	VA0020991	~~35,000~~ [~~27,410~~ *41,115*]	~~0.30~~	~~10,000~~	~~4,400~~ [~~2,056~~ *3,426*]	~~1.10~~	~~4,800~~
~~270~~	I09R	Clifton Forge STP	VA0022772	~~39,000~~ [~~24,364~~ *36,547*]	~~0.30~~	~~12,000~~	~~4,900~~ [~~1,827~~ *3,046*]	~~1.10~~	~~5,400~~
~~270~~	I09R	Covington STP	VA0025542	~~44,000~~ [~~36,547~~ *54,820*]	~~0.30~~	~~13,000~~	~~5,500~~ [~~2,741~~ *4,568*]	~~1.10~~	~~6,100~~
~~270~~	H02R	Georgia Pacific	VA0003026	~~99,000~~ [~~90,149~~ *122,489*]	~~0.30~~	~~30,000~~	~~66,000~~ [~~36,547~~ *49,658*]	~~1.10~~	~~72,000~~
~~270~~	~~I04R~~	~~Hot Springs Regional STP~~	~~VA0066303~~	~~10,000~~	~~0.30~~	~~3,100~~	~~1,300~~	~~1.10~~	~~1,400~~
~~270~~	I37R	Lees Carpets	VA0004677	~~22,000~~ 30,456	~~0.30~~	~~6,600~~	~~22,000~~ 12,182	~~1.10~~	~~24,000~~
~~270~~	I35R	Lexington-Rockbridge WQCF	VA0088161	~~29,000~~ [~~36,547~~ *54,820*]	~~0.30~~	~~8,800~~	~~3,600~~ [~~2,741~~ *4,568*]	~~1.10~~	~~4,000~~
~~270~~	I09R	Low Moor STP	VA0027979	~~7,300~~ [~~6,091~~ *9,137*]	~~0.30~~	~~2,200~~	~~910~~ [~~457~~ *761*]	~~1.10~~	~~1,000~~

~~270~~	I09R	Lower Jackson River STP	VA0090671	~~14,000~~ [~~18,273~~ *27,410*]	~~0.30~~	~~4,100~~	~~1,500~~ [~~1,371~~ *2,284*]	~~1.10~~	~~1,700~~
~~270~~	I04R	MeadWestvaco	VA0003646	~~370,000~~ 394,400	~~0.30~~	~~110,000~~	~~160,000~~ 159,892	~~1.10~~	~~180,000~~
~~280~~	H12R	Amherst [~~Town~~] STP	VA0031321	~~6,000~~ [~~7,309~~ *10,964*]	~~0.61~~	~~3,700~~	~~550~~ [~~548~~ *914*]	~~1.10~~	~~600~~
~~280~~	H05R	BWX Technologies Inc.	VA0003697	~~120,000~~ 187,000	~~0.61~~	~~71,000~~	~~760~~ 1,523	~~1.10~~	~~840~~
~~280~~	H05R	Greif Inc. [~~Riverville~~]	VA0006408	~~65,000~~ 73,246	~~0.61~~	~~40,000~~	~~31,000~~ 29,694	~~1.10~~	~~34,000~~
~~280~~	H31R	Lake Monticello STP	VA0024945	~~17,000~~ [~~12,121~~ *18,182*]	~~0.61~~	~~10,000~~	~~1,100~~ [~~909~~ *1,515*]	~~1.10~~	~~1,200~~
~~280~~	H05R	Lynchburg [~~City~~] STP (1)	VA0024970	~~420,000~~ 536,019	~~0.61~~	~~260,000~~	~~26,000~~ 33,501	~~1.10~~	~~29,000~~
~~280~~	H28R	Moores Creek Regional STP	VA0025518	~~290,000~~ [~~182,734~~ *274,100*]	~~0.61~~	~~180,000~~	~~18,000~~ [~~13,705~~ *22,842*]	~~1.10~~	~~20,000~~
~~290~~	H38R	Powhatan CC STP	VA0020699	~~7,700~~ [~~5,726~~ *8,588*]	~~0.81~~	~~6,200~~	~~480~~ [~~429~~ *716*]	~~1.10~~	~~530~~
~~300~~	J11R	Crewe WWTP	VA0020303	~~7,300~~ [~~6,091~~ *9,137*]	~~0.37~~	~~2,700~~	~~910~~ [~~457~~ *761*]	~~0.42~~	~~380~~
~~300~~	J01R	Farmville WWTP	VA0083135	~~27,000~~ [~~29,237~~ *43,856*]	~~0.37~~	~~9,900~~	~~3,400~~ [~~2,193~~ *3,655*]	~~0.42~~	~~1,400~~
~~600~~	G02E	[~~Brown and Williamson~~ *R. J. Reynolds*]	VA0002780	~~19,000~~ 25,583	~~1.00~~	~~19,000~~	~~1,900~~ 1,919	~~1.00~~	~~1,900~~

~~600~~	G01E	E I du Pont - Spruance	VA0004669	~~200,000~~ 201,080	~~1.00~~	~~200,000~~	~~7,800~~ 7,816	~~1.00~~	~~7,800~~
~~600~~	G01E	Falling Creek WWTP	VA0024996	~~140,000~~ [~~123,041~~ *153,801*]	~~1.00~~	~~140,000~~	~~14,000~~ [~~9,228~~ *15,380*]	~~1.00~~	~~14,000~~
~~600~~	G01E	Henrico County WWTP	VA0063690	~~780,000~~ [~~913,668~~ *1,142,085*]	~~1.00~~	~~780,000~~	~~78,000~~ [~~68,525~~ *114,209*]	~~1.00~~	~~78,000~~
~~600~~	G03E	Honeywell - Hopewell	VA0005291	~~1,100,000~~ 1,090,798	~~1.00~~	~~1,100,000~~	~~52,000~~ 51,592	~~1.00~~	~~52,000~~
~~600~~	G03R	Hopewell WWTP	VA0066630	~~1,200,000~~ 1,827,336	~~1.00~~	~~1,200,000~~	~~53,000~~ [~~45,683~~ *76,139*]	~~1.00~~	~~53,000~~
~~600~~	G15E	HRSD - Boat Harbor STP	VA0081256	~~540,000~~ [~~609,112~~ *740,000*]	~~1.00~~	~~540,000~~	~~49,000~~ 76,139	~~1.00~~	~~49,000~~
~~600~~	G11E	HRSD - James River STP	VA0081272	~~570,000~~ [~~487,290~~ *1,250,000*]	~~1.00~~	~~570,000~~	~~52,000~~ 60,911	~~1.00~~	~~52,000~~
~~600~~	G10E	HRSD - Williamsburg STP	VA0081302	~~500,000~~ [~~548,201~~ *800,000*]	~~1.00~~	~~500,000~~	~~46,000~~ 68,525	~~1.00~~	~~46,000~~
~~600~~	G02E	Philip Morris - Park 500 [~~(2)~~]	VA0026557	~~40,000~~ [~~18,547~~ *139,724*]	~~1.00~~	~~40,000~~	~~7,400~~ 2,650	~~1.00~~	~~7,400~~
~~600~~	G01E	Proctors Creek WWTP	VA0060194	~~290,000~~ [~~328,920~~ *411,151*]	~~1.00~~	~~290,000~~	~~29,000~~ [~~24,669~~ *41,115*]	~~1.00~~	~~29,000~~
~~600~~	G01E	Richmond WWTP (1)	VA0063177	~~1,000,000~~ 1,096,402	~~1.00~~	~~1,000,000~~	~~73,000~~ 68,525	~~1.00~~	~~73,000~~
~~600~~	G02E	Dominion-Chesterfield [~~(3)~~ *(2)*]	VA0004146	352,036			210		

~~600~~	J15R	South Central WW Authority	VA0025437	~~210,000~~ [~~280,192~~ *350,239*]	~~1.00~~	~~210,000~~	~~21,000~~ [~~21,014~~ *35,024*]	~~1.00~~	~~21,000~~
~~610~~	G07R	Chickahominy WWTP	VA0088480	~~2,300~~ [~~4,934~~ *6,167*]	~~1.00~~	~~2,300~~	~~76~~ 123	~~1.00~~	~~76~~
~~610~~	G05R	Tyson Foods – Glen Allen	VA0004031	~~21,000~~ 19,552	~~1.00~~	~~21,000~~	~~430~~ 326	~~1.00~~	~~430~~
~~620~~	G11E	HRSD - Nansemond STP	VA0081299	~~640,000~~ [~~730,934~~ *750,000*]	~~1.00~~	~~640,000~~	~~58,000~~ 91,367	~~1.00~~	~~58,000~~
~~960~~	G15E	HRSD - Army Base STP	VA0081230	~~500,000~~ [~~438,561~~ *610,000*]	~~1.00~~	~~500,000~~	~~46,000~~ 54,820	~~1.00~~	~~46,000~~
~~960~~	G15E	HRSD - VIP WWTP	VA0081281	~~1,100,000~~ [~~974,579~~ *750,000*]	~~1.00~~	~~1,100,000~~	~~97,000~~ 121,822	~~1.00~~	~~97,000~~
~~960~~	G15E	JH Miles & Company	VA0003263	~~20,000~~ [~~158,826~~ *153,500*]	~~1.00~~	~~20,000~~	~~680~~ [~~18,654~~ *21,500*]	~~1.00~~	~~680~~
~~965~~	C07E	HRSD - Ches.- Elizabeth STP	VA0081264	~~1,500,000~~ [~~1,526,409~~ *1,100,000*]	~~1.00~~	~~1,500,000~~	~~110,000~~ 108,674	~~1.00~~	~~110,000~~
		TOTALS		~~12,001,600~~ [~~13,459,719~~ *14,901,739*]		~~11,155,600~~	~~1,148,596~~ [~~1,205,957~~ *1,354,292*]		~~1,184,636~~

NOTES: (1) Waste load allocations for localities served by combined sewers are based on dry weather design flow capacity. During wet weather flow events the discharge shall achieve a TN concentration of 8.0 mg/l and a TP concentration of 1.0 mg/l.

[~~*(2) TN waste load allocation based on the portion of discharged nitrogen that is bioavailable to aquatic life.*~~]

[~~*(3)*~~ *(2)*] *Waste load allocations are "net" loads, based on the portion of the nutrient discharge introduced by the facility's process waste streams, and not originating in raw water intake.*

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.

C. Nitrogen and phosphorus waste load allocations to restore the Chesapeake Bay and its tidal rivers.

The following table presents nitrogen and phosphorus waste load allocations for the identified significant dischargers ~~, the associated delivery factors used for trading or offset purposes,~~ and the total nitrogen and total phosphorus ~~delivered~~ waste load ~~allocation~~ allocations for the [~~*basin*~~ *listed facilities*]. ~~*These individual significant discharger waste load allocations may be revised through the watershed trading program contained in 9 VAC 25-720-30. The waste load allocation listed below for a discharger, or the waste load allocation revised in accordance with 9 VAC 25-720-30, shall be achieved within four years following reissuance or modification of the discharger's VPDES permit, but in no case later than December 31, 2010.*~~

~~CBP Watershed Model Segment~~	Virginia Waterbody ID	Discharger Name	VPDES Permit No.	Total Nitrogen (TN) Waste Load Allocation (lbs/yr)	~~TN Delivery Factor~~	~~TN Waste Load Delivered Allocation (lbs/yr)~~	Total Phosphorus (TP) Waste Load Allocation (lbs/yr)	~~TP Delivery Factor~~	~~TP Waste Load Delivered Allocation (lbs/yr)~~
~~240~~	F20R	Caroline	VA007350	~~7,300~~	~~0.42~~	~~3,100~~	~~460~~	~~0.43~~	~~200~~

		County STP	4	[~~6,091~~ *9,137*]			[~~457~~ *1,066*]		
~~250~~	F01R	Gordonsville STP	VA0021105	~~16,000~~ [~~11,451~~ *17,177*]	~~0.02~~	~~330~~	~~1,000~~ [~~859~~ *2,004*]	~~0.58~~	~~590~~
~~260~~	F04R	Ashland WWTP	VA0024899	~~38,000~~ [~~24,364~~ *36,547*]	~~0.51~~	~~19,000~~	~~2,400~~ [~~1,827~~ *4,264*]	~~0.58~~	~~1,400~~
~~260~~	F09R	Doswell WWTP	VA0029521	~~110,000~~ [~~59,510~~ *65,601*]	~~0.51~~	~~56,000~~	~~6,800~~ [~~20,101~~ *14,923*]	~~0.58~~	~~4,000~~
~~590~~	F27E	Giant Yorktown Refinery	VA0003018	~~170,000~~ 167,128	~~1.00~~	~~170,000~~	~~22,000~~ 22,111	~~1.00~~	~~22,000~~
~~590~~	F27E	HRSD - York River STP	VA0081311	~~310,000~~ [~~182,734~~ *274,100*]	~~1.00~~	~~310,000~~	~~19,000~~ [~~13,705~~ *31,978*]	~~1.00~~	~~19,000~~
~~590~~	F14R	Parham Landing WWTP [*(1)*]	VA0088331	~~5,200~~ [~~36,547~~ *54,820*]	~~1.00~~	~~5,200~~	~~520~~ [~~2,741~~ *6,396*]	~~1.00~~	~~520~~
~~590~~	F14E	Smurfit Stone - West Point	VA0003115	~~300,000~~ 259,177	~~1.00~~	~~300,000~~	~~28,000~~ 70,048	~~1.00~~	~~28,000~~
~~590~~	F12E	Totopotomoy WWTP	VA0089915	~~120,000~~ [~~60,911~~ *182,734*]	~~1.00~~	~~120,000~~	~~7,600~~ [~~4,568~~ *21,319*]	~~1.00~~	~~7,600~~
~~590~~	F25E	West Point STP	VA0075434	~~15,000~~ [~~7,309~~ *10,964*]	~~1.00~~	~~15,000~~	~~910~~ [~~548~~ *1,279*]	~~1.00~~	~~910~~
~~940~~	C04E	HRSD - Mathews Courthouse STP	VA0028819	~~1,900~~ [~~1,218~~ *1,827*]	~~1.00~~	~~1,900~~	~~120~~ [~~91~~ *213*]	~~1.00~~	~~120~~
		TOTALS:		~~1,093,400~~		~~1,000,530~~	~~88,810~~		~~84,340~~

				[~~816,442~~ *1,079,212*]			**[~~137,057~~ *175,601*]**		

[*NOTES: (1) Parham Landing WWTP: waste load allocations (WLAs) based on a design flow capacity of 3.0 million gallons per day (MGD). If plant is not certified to operate at 3.0 MGD design flow capacity by 12/31/10, the WLAs will decrease to TN = 10,416 lbs/yr; TP = 1,215 lbs/yr, based on a design flow capacity of 0.57 MGD.*]

CERTIFIED TRUE AND ACCURATE: _____
Robert G. Burnley, Director, DEQ

DATE: _____