

PATUXENT WATER FILTRATION PLANT
TAP WATER ANALYSIS - 2004

PARAMETER	UNIT OF MEASURE	YEARLY AVERAGE	MAXIMUM MONTHLY AVERAGE	MINIMUM MONTHLY AVERAGE	EPA LIMIT
<u>GENERAL WATER QUALITY</u>					
Alkalinity	mg/L	29	35	24	
Color	Units	1	3	0	
Hardness	mg/L	56	63	47	
pH	Units	7.5	7.7	7.4	
Specific Conductance	µSiemens/cm@25°C	168	177	155	
Temperature	° C	15.5	27.1	3.3	
Threshold Odor	Units	1.1	1.2	1.1	
Turbidity	NTU	0.16	0.21	0.10	
<u>METALS</u>					
Aluminum	µg/L	25	161	<10	
Antimony	µg/L	<2	<2	n/d	6
Arsenic	µg/L	<2	<2	n/d	50 ¹
Barium	µg/L	22	26	16	2000
Beryllium	µg/L	<2	<2	n/d	4
Cadmium	µg/L	<2	<2	n/d	5
Calcium	mg/L	15.4	29.6	12.2	
Chromium	µg/L	<2	2	<2	100
Copper	µg/L	16	85	<10	1300 ²
Iron	µg/L	12	39	n/d	
Lead	µg/L	<2	<2	n/d	15 ²
Magnesium	mg/L	4.2	5.0	3.4	
Manganese	µg/L	<2	39	n/d	
Mercury	µg/L	<0.2	<0.2	n/d	2
Potassium	mg/L	2.4	2.8	1.8	
Selenium	µg/L	<2	<2	n/d	50
Sodium	mg/L	10.2	15.6	2.2	
Thallium	µg/L	<1	<1	n/d	2
Zinc	µg/L	<5	54	<5	
<u>INORGANICS</u>					
Chloride	mg/L	26.8	37.5	10.4	
Chlorine	mg/L	1.5	1.8	1.4	
Fluoride	mg/L	1.01	1.14	0.95	4
Nitrate	mg/L	1.58	2.35	0.94	10
Phosphorous	mg/L	0.28	0.45	0.12	
Sulfate	mg/L	7.23	8.29	6.32	
<u>BACTERIOLOGICAL (DISTRIBUTION SYSTEM)</u>					
% of Samples Total Coliform Positive		0.29	1.04	0	5
% of Samples <i>E. coli</i> Positive		0	0	0	
No. of <i>E. coli</i> Positive Repeat Samples		0	0	0	0
<u>DISINFECTION BYPRODUCTS & PRECURSOR</u>					
Organic Carbon, Total	mg/L	1.41	2.10	0.98	
Haloacetic Acids (HAAs), Total *	µg/L	39.5	79.7	20.7	60 ³
Trihalomethanes (THMs), Total *	µg/L	42.8	69.0	19.1	80 ³
<u>PESTICIDES & SYNTHETIC ORGANIC CONTAMINANTS (SOC)</u>					
2,3,7,8-TCDD (Dioxin)	pg/L	n/d	n/d	n/d	30
2,4,5 TP (Silvex)	µg/L	n/d	n/d	n/d	50
2,4-D	µg/L	n/d	n/d	n/d	70
Alachlor	µg/L	<0.5	<0.5	n/d	2
Aldicarb	µg/L	n/d	n/d	n/d	3
Aldicarb sulfone	µg/L	n/d	n/d	n/d	2
Aldicarb sulfoxide	µg/L	n/d	n/d	n/d	4
Atrazine	µg/L	n/d	n/d	n/d	3
Benzo(a)pyrene	µg/L	n/d	n/d	n/d	0.2
Carbofuran	µg/L	n/d	n/d	n/d	40
Chlorinated biphenyls (PCBs)	µg/L	n/d	n/d	n/d	0.5

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<u>PESTICIDES & SYNTHETIC ORGANIC CONTAMINANTS (SOC)</u>					
Chlordane	µg/L	n/d	n/d	n/d	2
Dalapon	µg/L	0.79	3.17	n/d	200
1,2-Dibromo3-chloropropane (DBCP)	µg/L	n/d	n/d	n/d	0.2
Di(2-ethylhexyl)adipate	µg/L	<0.5	<0.5	n/d	400
Di(2-ethylhexyl)phthalate	µg/L	0.96	2.38	<0.5	6
Dinoseb	µg/L	n/d	n/d	n/d	7
Diquat	µg/L	n/d	n/d	n/d	20
1,2-Dibromoethane (EDB)	µg/L	n/d	n/d	n/d	0.05
Endothall	µg/L	n/d	n/d	n/d	100
Endrin	µg/L	<0.5	<0.5	n/d	2
Glyphosate	µg/L	n/d	n/d	n/d	700
Heptachlor	µg/L	<0.4	<0.4	n/d	0.4
Heptachlor Epoxide	µg/L	n/d	n/d	n/d	0.2
Hexachlorobenzene	µg/L	n/d	n/d	n/d	1
Hexachlorocyclopentadiene	µg/L	<0.5	<0.5	n/d	50
Lindane	µg/L	<0.2	<0.2	n/d	0.2
Methoxychlor	µg/L	n/d	n/d	n/d	40
Oxamyl (vydate)	µg/L	n/d	n/d	n/d	200
Pentachlorophenol	µg/L	n/d	n/d	n/d	1
Picloram	µg/L	n/d	n/d	n/d	500
Simazine	µg/L	n/d	n/d	n/d	4
Toxaphene	µg/L	n/d	n/d	n/d	3
<u>VOLATILE ORGANIC CONTAMINANTS (VOC)</u>					
1,1,1-Trichloroethane	µg/L	n/d	n/d	n/d	200
1,1,2-Trichloroethane	µg/L	<0.5	<0.5	n/d	5
1,1-Dichloroethene	µg/L	<0.5	<0.5	n/d	7
1,2,4-Trichlorobenzene	µg/L	<0.5	<0.5	n/d	70
1,2-Dichlorobenzene	µg/L	<0.5	<0.5	n/d	600
1,2-Dichloroethane	µg/L	n/d	n/d	n/d	5
1,2-Dichloropropane	µg/L	n/d	n/d	n/d	5
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	n/d	75
Benzene	µg/L	n/d	n/d	n/d	5
Carbon Tetrachloride	µg/L	<0.5	<0.5	n/d	5
Chlorobenzene	µg/L	<0.5	<0.5	n/d	100
<i>cis</i> -1,2-Dichloroethene	µg/L	n/d	n/d	n/d	70
Dichloromethane	µg/L	<0.5	<0.5	n/d	5
Ethylbenzene	µg/L	<0.5	<0.5	n/d	700
Total Xylenes	µg/L	<0.5	<0.5	n/d	10000
Styrene	µg/L	n/d	n/d	n/d	100
Tetrachloroethene	µg/L	n/d	n/d	n/d	5
Toluene	µg/L	<0.5	<0.5	n/d	1000
<i>trans</i> -1,2-Dichloroethene	µg/L	<0.5	<0.5	n/d	100
Trichloroethene	µg/L	<0.5	<0.5	n/d	5
Vinyl Chloride	µg/L	<0.5	<0.5	n/d	2
<u>RADIONUCLIDES ^a</u>					
Gross Alpha	pCi/L	<1	1	<1	15
Gross Beta	pCi/L	<3	3	<3	

LEGENDS

mg/L - milligrams per liter, equivalent to parts per million (ppm)

NTU - Nephelometric Turbidity Unit

TT - Treatment Technique

µg/L - micrograms per liter, equivalent to parts per billion (ppb)

n/d - not detected

pg/L - picograms per liter

pCi/L - picocuries per liter

* - Distribution system samples

¹ - The EPA limit for arsenic will change to 10 µg/L effective January 23, 2006.

² - Action level for copper and lead. If more than 10% of tap water samples exceed the action level, water system is required to take additional steps to control corrosiveness of their water.

³ - Based on a running annual average of distribution system samples.

^a - Analyzed by the Maryland Department of Health and Mental Hygiene.

**POTOMAC WATER FILTRATION PLANT
TAP WATER ANALYSIS - 2004**

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<u>GENERAL WATER QUALITY</u>					
Alkalinity	mg/L	81	98	63	
Color	Units	1	2	0	
Hardness	mg/L	122	142	102	
pH	Units	7.5	7.5	7.4	
Specific Conductance	µSiemens/cm@25°C	301	371	227	
Temperature	° C	16.2	27.8	3.4	
Threshold Odor	Units	1	1	1	
Turbidity	NTU	0.26	0.67	0.11	
<u>METALS</u>					
Aluminum	µg/L	66	402	17	
Antimony	µg/L	<2	<2	n/d	6
Arsenic	µg/L	<2	<2	n/d	50 ¹
Barium	µg/L	34	43	26	2000
Beryllium	µg/L	<2	<2	n/d	4
Cadmium	µg/L	<2	<2	n/d	5
Calcium	mg/L	36.3	51.4	22.7	
Chromium	µg/L	<2	8	<2	100
Copper	µg/L	<10	<10	n/d	1300 ²
Iron	µg/L	16	94	n/d	
Lead	µg/L	<2	4	n/d	15 ²
Magnesium	mg/L	7.7	12.7	4.5	
Manganese	µg/L	6	24	<2	
Mercury	µg/L	<0.2	<0.2	n/d	2
Potassium	mg/L	2.7	3.9	1.8	
Selenium	µg/L	<2	<2	n/d	50
Sodium	mg/L	13.5	41.2	2.5	
Thallium	µg/L	<1	<1	n/d	2
Zinc	µg/L	<5	85	<5	
<u>INORGANICS</u>					
Chloride	mg/L	30.7	77.0	11.4	
Chlorine	mg/L	2.8	3.2	2.2	
Fluoride	mg/L	0.93	1.02	0.86	4
Nitrate	mg/L	2.05	2.84	1.66	10
Phosphorous	mg/L	0.30	0.37	0.13	
Sulfate	mg/L	26.1	49.4	7.32	
<u>BACTERIOLOGICAL (DISTRIBUTION SYSTEM)</u>					
% of Samples Total Coliform Positive		0.29	1.04	0	5
% of Samples <i>E. coli</i> Positive		0	0	0	
No. of <i>E. coli</i> Positive Repeat Samples		0	0	0	0
<u>DISINFECTION BYPRODUCTS & PRECURSOR</u>					
Organic Carbon, Total	mg/L	1.73	2.65	1.07	
Haloacetic Acids (HAAs), Total *	µg/L	39.5	79.7	20.7	60 ³
Trihalomethanes (THMs), Total *	µg/L	42.8	69.0	19.1	80 ³
<u>PESTICIDES & SYNTHETIC ORGANIC CONTAMINANTS (SOC)</u>					
2,3,7,8-TCDD (Dioxin)	pg/L	n/d	n/d	n/d	30
2,4,5 TP (Silvex)	µg/L	n/d	n/d	n/d	50
2,4-D	µg/L	n/d	n/d	n/d	70
Alachlor	µg/L	n/d	n/d	n/d	2
Aldicarb	µg/L	n/d	n/d	n/d	3
Aldicarb sulfone	µg/L	n/d	n/d	n/d	2
Aldicarb sulfoxide	µg/L	n/d	n/d	n/d	4
Atrazine	µg/L	n/d	n/d	n/d	3
Benzo(a)pyrene	µg/L	n/d	n/d	n/d	0.2
Carbofuran	µg/L	n/d	n/d	n/d	40
Chlorinated biphenyls (PCBs)	µg/L	n/d	n/d	n/d	0.5

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1,2-Dibromo3-chloropropane (DBCP)	µg/L	n/d	n/d	n/d	0.2
Di(2-ethylhexyl)adipate	µg/L	<0.5	0.87	n/d	400
Di(2-ethylhexyl)phthalate	µg/L	0.78	1.60	<0.5	6
Dinoseb	µg/L	n/d	n/d	n/d	7
Diquat	µg/L	n/d	n/d	n/d	20
1,2-Dibromoethane (EDB)	µg/L	n/d	n/d	n/d	0.05
Endothall	µg/L	n/d	n/d	n/d	100
Endrin	µg/L	<0.5	0.52	n/d	2
Glyphosate	µg/L	n/d	n/d	n/d	700
Heptachlor	µg/L	<0.4	<0.4	n/d	0.4
Heptachlor Epoxide	µg/L	n/d	n/d	n/d	0.2
Hexachlorobenzene	µg/L	n/d	n/d	n/d	1
Hexachlorocyclopentadiene	µg/L	<0.5	<0.5	n/d	50
Lindane	µg/L	<0.2	<0.2	n/d	0.2
Methoxychlor	µg/L	n/d	n/d	n/d	40
Oxamyl (vydate)	µg/L	n/d	n/d	n/d	200
Pentachlorophenol	µg/L	n/d	n/d	n/d	1
Picloram	µg/L	n/d	n/d	n/d	500
Simazine	µg/L	n/d	n/d	n/d	4
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1,1,2-Trichloroethane	µg/L	<0.5	<0.5	n/d	5
1,1-Dichloroethene	µg/L	n/d	n/d	n/d	7
1,2,4-Trichlorobenzene	µg/L	<0.5	<0.5	n/d	70
1,2-Dichlorobenzene	µg/L	<0.5	<0.5	n/d	600
1,2-Dichloroethane	µg/L	<0.5	<0.5	n/d	5
1,2-Dichloropropane	µg/L	n/d	n/d	n/d	5
1,4-Dichlorobenzene	µg/L	<0.5	<0.5	n/d	75
Benzene	µg/L	<0.5	<0.5	n/d	5
Carbon Tetrachloride	µg/L	<0.5	<0.5	n/d	5
Chlorobenzene	µg/L	<0.5	<0.5	n/d	100
<i>cis</i> -1,2-Dichloroethene	µg/L	n/d	n/d	n/d	70
Dichloromethane	µg/L	<0.5	<0.5	n/d	5
Ethylbenzene	µg/L	<0.5	<0.5	n/d	700
Total Xylenes	µg/L	<0.5	1.1	n/d	10000
Styrene	µg/L	<0.5	<0.5	n/d	100
Tetrachloroethene	µg/L	<0.5	<0.5	n/d	5
Toluene	µg/L	<0.5	<0.5	n/d	1000
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Trichloroethene	µg/L	<0.5	<0.5	n/d	5
Vinyl Chloride	µg/L	<0.5	<0.5	n/d	2
<u>RADIONUCLIDES ^a</u>					
Gross Alpha	pCi/L	<1	1	<1	15
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