



Hudson River Water Quality Report: September 11-14 and October 12-16, 2010 (last sampling patrol for 2010)

Together with our science partners from Lamont-Doherty Earth Observatory and Queens College, Riverkeeper sampled for *Enterococcus* (an indicator of untreated sewage) at our 74 standard sampling locations, plus the Gowanus Canal, from September 11th through 14th and again from October 12th through 16th.

To learn more about Riverkeeper's Water Quality Program, and to view historic sampling data, please visit [www.riverkeeper.org/water-quality/Hudson](http://www.riverkeeper.org/water-quality/ Hudson).



4.4 million gallons of sewage flowing into the Saw Mill River
Photo courtesy of Bard Porchaska

Highlights

These two months were textbook sampling runs illustrating water quality in **DRY vs. WET weather. September was dry**; there was almost no rain prior to and during our sampling patrol, so **9 of 75** samples had "unacceptable" *Enterococcus* (Entero) counts (**12% "unacceptable"** – the 2nd 'best' month this year). Something other than rain caused the 9 "unacceptable" samples.

By comparison, **October was a whopper**; it rained hard the night before the patrol started and there was more regional rain midway through (days 3 & 4 of 5), so **45 of 79** samples had "unacceptable" Entero counts (**57% "unacceptable"** – the 'worst' month this year by a large margin). In addition, it turns out that there was a **4.4 million gallon release of raw sewage** at Sleepy Hollow and Yonkers while we happened to be sampling, which caused foul water quality at those two locations.

Also in October, we took advantage of the opportunity to measure rain impacts at Beacon and Newburg by sampling just before and just after an all-night rain. Read on...

September Observations

NY Harbor (day 1): Every single sample location tested "acceptable." Shows that in dry weather, the system around NYC works pretty well at keeping microbes out of the river and harbor. That's good.

Yonkers to Peekskill (day 2): Only upper **Sparkill Creek** in Orangetown and **Cedar Pond Brook** in Haverstraw/Stony Point had "unacceptable" Entero counts. Both tributaries

are in Rockland County. Our sampling at Sparkill Creek shows chronically poor water quality, so unfortunately no surprise there, but Cedar Pond Brook has been better; "acceptable" every time we sampled in 2009 (a wet year), and yet, this year (drier) we've found 2 out of 6 "unacceptable" - seems like a location where something other than rainwater overflows and infiltration are to blame.

Bear Mountain to Kingston (day 3): "Unacceptable" Enterococcus counts at three sites: the **West Point Sewer Plant** discharge, **Little Stony Point Beach** and the **Kingston Public Dock**. Kingston is no surprise, our samples have been 50% "unacceptable" there this year and 2009 was worse. But there is something interesting about the other two. We started sampling BOTH in May 2008 and collected no "unacceptable" samples at EITHER in 2008 or 2009. However, this year BOTH were "unacceptable" on the same days in July and September and BOTH were higher when sampled in September. What's up?

Ulster Landing Beach to Waterford (day 4): "Unacceptable" counts at **Island Creek**, **Dunn Memorial Bridge**, and **Albany Rowing Dock**. This year, in spite of a pretty dry year, our samples were "acceptable" at these three sites only in May and August. The **Mohawk River** was REALLY "unacceptable" in September, the Enterococcus count was >2,420 per 100ml (we can't measure higher w/o doing a dilution). That's the highest we've measured there this year and it was a beautiful dry weather day. So even a savvy person who knows to avoid contact with the water after wet weather could still be at risk. In fair weather I see Jet Ski riders here. They have no way of knowing the water quality conditions. Russian roulette.

October Observations

NY Harbor (day 1): There was heavy rain the night before we sampled so EVERY sample we collected in the Harlem River, East River, Newtown Creek and Hudson River south of the GW Bridge had "unacceptable" Enterococcus counts (over 104 per 100ml), with one exception - the effluent from the sewage treatment plant outfall at 125th Street. That's right, the outflow from the sewage treatment plant tested better than the river it was flowing into.

Yonkers to Peekskill (day 2): All sites were "acceptable" except three. **Upper Sparkill Creek**, where we've had only two acceptable counts this year (even though we sample more often there - about 4 times a month). At the mouth of the **Saw Mill River** we measured 816/100 ml and at **Tarrytown Marina** we got >24,200/100ml (over our maximum measurement limit in marine waters). Both locations smelled like crap when we arrived to sample. Surprise...turns out that there had been a **4.4 million gallon sewage spill** caused by the failure of a high-pressure sewer main at Tarrytown the day before. The spilled sewage was released to the Hudson from a pipe next to the kayak launch and beach near Ichabod's Landing condos in Sleepy Hollow and it was still pouring into the Saw Mill from a pipe in Yonkers. We didn't know about this massive spill because the public wasn't alerted.

Why should the public be warned about sewage spills like this? Well, the next day, with sewage still flowing into the Saw Mill and Hudson, 20 kids were down at the Beczak Center, just north of the Saw Mill, physically in the water sampling and seining, celebrating the Hudson along with thousands of other kids up and down the river on the annual "DAY IN THE LIFE" event. Who says that Westchester officials can just decide to keep a sewage spill like this from the public? It's really wrong. Read more about this spill.

Bear Mountain to Beacon (day 3): All sites tested "acceptable" (under 33 Enterococcus/100ml) except for the **Newburg Launch Ramp** - which is par for the course more often than not this year (last year too). It was rain free during sampling.

Beacon to Catskill (day 4): We had moderate rain all night between day 3 and 4, so I re-sampled Beacon and Newburg before continuing north.

Beacon: (before rain) 56/100ml "possible risk"

(after rain) 816/100ml "unacceptable" (threshold is 61/100ml in fresh water)

Newburg: (before rain) 326/100ml "possible risk"

(after rain) >2420/100ml "unacceptable" (measurement limit for fresh water)

It seems safe to say that both sites are clearly affected by rain events and that, in addition, Newburg has some dry weather sewage discharges.

The rest of the samples between Beacon and Catskill indicated spotty areas of contamination. Generally, the closer a sample was taken to the main stem of the river, the lower the Enterococcus count. Samples taken in the tributaries, or near-shore confined waters, were generally more contaminated. The message here is that we, on shore, are the source. Generally, out in the body of the river, farther from the sources, dilution lowers the contamination levels.


Catskill Creek to Waterford (day 5): All 17 samples were "unacceptable" (Enterococcus over 61/100 ml). Several sites were above 600/100ml, several were above 900/100ml, several above 1900/100ml and two were above our ability to measure at >2420/100ml. Poor water quality, real poor.


[View sampling data sorted historically by individual sampling location.](#)


[View archived monthly water quality reports from May 2010 to the present.](#)

September 2010 Sampling Data

For River Mile 0 to River Mile 44, the following standards apply:

 Enterococcus count (under 35/100ml) is acceptable by EPA standards*


 Enterococcus count (between 35 and 104/100ml), if sustained over time, would be unacceptable by EPA standards*


 Enterococcus count (over 104/100ml) is unacceptable by EPA standards*


River Mile	Site Name	Sample Date	Enterococcus Count	Quality
-1	Gowanus canal	September 11, 2010	0	Acceptable
0.1	The Battery midchannel	September 11, 2010	0	Acceptable
2.5	East River midchannel at 23rd St.	September 11, 2010	0	Acceptable
2.6	Newtown Creek- Dutch Kills	September 11, 2010	10	Acceptable
2.7	Newtown Creek- Metropolitan Ave. Bridge	September 11, 2010	10	Acceptable
4	East River at Roosevelt Island	September 11, 2010	0	Acceptable
4.7	Castle Point, NJ	September 11, 2010	10	Acceptable
6	Pier 96 Kayak Launch	September 11, 2010	0	Acceptable
7	79th St. midchannel	September 11, 2010	0	Acceptable
7.9	125th St. Pier	September 11, 2010	20	Acceptable
8	125th St. WWTP Outfall	September 11, 2010	0	Acceptable
8.1	Harlem River- Washington Ave. Bridge	September 11, 2010	10	Acceptable
12	GW Bridge midchannel	September 11, 2010	0	Acceptable
12.1	Harlem River- Willis Ave. Bridge	September 11, 2010	10	Acceptable
14	Dyckman St. Beach	September 11, 2010	30	Acceptable

17.5	Yonkers Wastewater Treatment Plant Outfall	September 12, 2010	10	Acceptable
18.4	Saw Mill River	September 12, 2010	0	Acceptable
18.5	Yonkers midchannel	September 12, 2010	10	Acceptable
25.9	Irvington Beach	September 12, 2010	0	Acceptable
26	Piermont Sewage Treatment Plant Outfall	September 12, 2010	51	Possible Risk
26.1	Piermont Pier	September 12, 2010	10	Acceptable
26.5	Upper Sparkill Creek	September 6, 2010	980	Unacceptable
27	Tarrytown marina	September 12, 2010	0	Acceptable
27.5	Tappan Zee Bridge midchannel	September 12, 2010	0	Acceptable
28	Kingsland Point Park and Pocantico River	September 12, 2010	10	Acceptable
28.1	Nyack Launch Ramp	September 12, 2010	30	Acceptable
34	Ossining Beach	September 12, 2010	10	Acceptable
35	Croton Point Beach	September 12, 2010	0	Acceptable
35.5	Haverstraw Bay midchannel	September 12, 2010	20	Acceptable
38	Furnace Brook	September 12, 2010	0	Acceptable
39	Emeline Beach	September 12, 2010	20	Acceptable
40	Cedar Pond Brook	September 12, 2010	228	Unacceptable
40.5	Stony Point midchannel	September 12, 2010	0	Acceptable
43	Peekskill Riverfront Green Park	September 12, 2010	86	Possible Risk
44	Annesville Creek	September 12, 2010	10	Acceptable

For River Mile 45 north, the following standards apply:

 Enterococcus count (under 33/100ml) is acceptable by EPA standards*

 Enterococcus count (between 33 and 61/100ml), if sustained over time, would be unacceptable by EPA standards*




 Enterococcus count (over 61/100ml) is unacceptable by EPA standards*

River Mile	Site Name	Sample Date	Enterococcus Count	Quality
46	Fort Montgomery	September 12, 2010	13	Acceptable
52.5	West Point Sewage Treatment Plant Outfall	September 13, 2010	291	Unacceptable
53.5	Cold Spring Harbor	September 13, 2010	13	Acceptable
54	Little Stony Point	September 13, 2010	166	Unacceptable
60	Newburgh Launch Ramp	September 13, 2010	17	Acceptable
61	Beacon Harbor	September 13, 2010	20	Acceptable
66.5	Wappingers Creek	September 13, 2010	17	Acceptable
68	Marlboro Landing	September 13, 2010	4	Acceptable
75	Poughkeepsie Launch Ramp	September 13, 2010	15	Acceptable
77	Poughkeepsie Drinking Water Intake	September 13, 2010	3	Acceptable
84.5	Norrie Point midchannel	September 13, 2010	5	Acceptable
85	Norrie Point Yacht Basin	September 13, 2010	47	Possible Risk
88	Port Ewen Drinking Water Intake	September 13, 2010	7	Acceptable
92	Kingston Point Beach	September 13, 2010	23	Acceptable

92.1	Kingston Sewage Treatment Plant Outfall	September 13, 2010	49	Possible Risk
92.2	Kingston Public Dock	September 13, 2010	133	Unacceptable
92.3	Eddyville Anchorage	September 13, 2010	59	Possible Risk
97	Ulster Landing Beach	September 14, 2010	22	Acceptable
99	Tivoli Landing	September 14, 2010	31	Acceptable
102	Esopus Creek Entrance	September 14, 2010	44	Possible Risk
102.1	Esopus Creek West	September 14, 2010	38	Possible Risk
103	Malden Launch Ramp	September 14, 2010	32	Acceptable
108.5	Inbocht Bay	September 14, 2010	11	Acceptable
113	Catskill Launch Ramp	September 14, 2010	31	Acceptable
113.1	Catskill Creek – East End	September 14, 2010	21	Acceptable
113.2	Catskill Creek – First Bridge	September 14, 2010	11	Acceptable
116.5	Hudson Launch Ramp	September 14, 2010	19	Acceptable
117	Athens Sewage Treatment Plant Outfall	September 14, 2010	27	Acceptable
122.5	Gay's Point Midchannel	September 14, 2010	8	Acceptable
124	Coxsackie Waterfront Park	September 14, 2010	42	Possible Risk
133	Coeymans Landing	September 14, 2010	22	Acceptable
137	Castleton- Vlockie Kill	September 14, 2010	26	Acceptable
138	Bethlehem Launch Ramp	September 14, 2010	9	Acceptable
142	Island Creek/Normans Kill	September 14, 2010	104	Unacceptable
144.5	Dunn Memorial Bridge	September 14, 2010	88	Unacceptable
146	Albany Rowing Dock	September 14, 2010	82	Unacceptable
151.5	Congress Street Bridge	September 14, 2010	31	Acceptable
152.5	Hudson River above Troy Lock	September 14, 2010	32	Acceptable
155	Mohawk River	September 14, 2010	2420	Unacceptable
155.1	Hudson above confluence with Mohawk River	September 14, 2010	15	Acceptable

October 2010 Sampling Data


For River Mile 0 to River Mile 44, the following standards apply:


 Enterococcus count (under 35/100ml) is acceptable by EPA standards*	 Enterococcus count (between 35 and 104/100ml), if sustained over time, would be unacceptable by EPA standards*	 Enterococcus count (over 104/100ml) is unacceptable by EPA standards*
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River Mile	Site Name	Sample Date	Enterococcus Count	Quality
-1	Gowanus canal	October 12, 2010	24196	Unacceptable
0.1	The Battery midchannel	October 12, 2010	134	Unacceptable
2.5	East River midchannel at 23rd St.	October 12, 2010	399	Unacceptable
2.6	Newtown Creek- Dutch Kills	October 12, 2010	24196	Unacceptable
2.7	Newtown Creek- Metropolitan Ave. Bridge	October 12, 2010	24196	Unacceptable
4	East River at Roosevelt Island	October 12, 2010	275	Unacceptable
4.7	Castle Point, NJ	October 12, 2010	231	Unacceptable
6	Pier 96 Kayak Launch	October 12, 2010	331	Unacceptable

7	79th St. midchannel	October 12, 2010	161	Unacceptable
7.9	125th St. Pier	October 12, 2010	110	Unacceptable
8	125th St. WWTP Outfall	October 12, 2010	63	Possible Risk
8.1	Harlem River- Willis Ave. Bridge	October 12, 2010	487	Unacceptable
12	GW Bridge midchannel	October 12, 2010	110	Unacceptable
12.1	Harlem River- Washington Ave. Bridge	October 12, 2010	816	Unacceptable
14	Dyckman St. Beach	October 12, 2010	41	Possible Risk
17.5	Yonkers Wastewater Treatment Plant Outfall	October 13, 2010	31	Acceptable
18.4	Saw Mill River	October 13, 2010	816	Unacceptable
18.5	Yonkers midchannel	October 13, 2010	10	Acceptable
25.9	Irvington Beach	October 13, 2010	0	Acceptable
26	Piermont Sewage Treatment Plant Outfall	October 13, 2010	0	Acceptable
26.1	Piermont Pier	October 13, 2010	0	Acceptable
26.5	Upper Sparkill Creek	October 18, 2010	2420	Unacceptable
27	Tarrytown marina	October 13, 2010	24196	Unacceptable
27.5	Tappan Zee Bridge midchannel	October 13, 2010	10	Acceptable
28	Kingsland Point Park and Pocantico River	October 13, 2010	20	Acceptable
28.1	Nyack Launch Ramp	October 13, 2010	73	Possible Risk
34	Ossining Beach	October 13, 2010	0	Acceptable
35	Croton Point Beach	October 13, 2010	10	Acceptable
35.5	Haverstraw Bay midchannel	October 13, 2010	0	Acceptable
38	Furnace Brook	October 13, 2010	0	Acceptable
39	Emeline Beach	October 13, 2010	10	Acceptable
40	Cedar Pond Brook	October 13, 2010	0	Acceptable
40.5	Stony Point midchannel	October 13, 2010	0	Acceptable
43	Peekskill Riverfront Green Park	October 13, 2010	31	Acceptable
44	Annesville Creek	October 13, 2010	10	Acceptable

For River Mile 45 north, the following standards apply:

 Enterococcus count (under 33/100ml) is acceptable by EPA standards*

 Enterococcus count (between 33 and 61/100ml), if sustained over time, would be unacceptable by EPA standards*

 Enterococcus count (over 61/100ml) is unacceptable by EPA standards*

River Mile	Site Name	Sample Date	Enterococcus Count	Quality
46	Fort Montgomery	October 14, 2010	24	Acceptable
52.5	West Point Sewage Treatment Plant Outfall	October 14, 2010	26	Acceptable
53.5	Cold Spring Harbor	October 14, 2010	33	Possible Risk
54	Little Stony Point	October 14, 2010	25	Acceptable
60	Newburgh Launch Ramp (before rain)	October 14, 2010	326	Unacceptable
60	Newburgh Launch Ramp (after rain)	October 15, 2010	2420	Unacceptable

61	Beacon Harbor (before rain)	October 14, 2010	56	Possible Risk
61	Beacon Harbor (after rain)	October 15, 2010	816	Unacceptable
66.5	Wappingers Creek	October 15, 2010	22	Acceptable
68	Marlboro Landing	October 15, 2010	2420	Unacceptable
75	Poughkeepsie Launch Ramp	October 15, 2010	78	Unacceptable
77	Poughkeepsie Drinking Water Intake	October 15, 2010	7	Acceptable
84.5	Norrie Point midchannel	October 15, 2010	17	Acceptable
85	Norrie Point Yacht Basin	October 15, 2010	345	Unacceptable
88	Port Ewen Drinking Water Intake	October 15, 2010	20	Acceptable
92	Kingston Point Beach	October 15, 2010	35	Possible Risk
92.1	Kingston Sewage Treatment Plant Outfall	October 15, 2010	35	Possible Risk
92.2	Kingston Public Dock	October 15, 2010	184	Unacceptable
92.3	Eddyville Anchorage	October 15, 2010	119	Unacceptable
97	Ulster Landing Beach	October 15, 2010	84	Unacceptable
99	Tivoli Landing	October 15, 2010	17	Acceptable
102	Esopus Creek Entrance (before rain)	October 14, 2010	56	Possible Risk
102	Esopus Creek Entrance (after rain)	October 15, 2010	126	Unacceptable
102.1	Esopus Creek West (before rain)	October 14, 2010	67	Unacceptable
102.1	Esopus Creek West (after rain)	October 15, 2010	411	Unacceptable
103	Malden Launch Ramp	October 15, 2010	41	Possible Risk
108.5	Inbocht Bay	October 15, 2010	31	Acceptable
113	Catskill Launch Ramp	October 16, 2010	192	Unacceptable
113.1	Catskill Creek – East End	October 16, 2010	1986	Unacceptable
113.2	Catskill Creek – First Bridge	October 16, 2010	1986	Unacceptable
116.5	Hudson Launch Ramp	October 16, 2010	125	Unacceptable
117	Athens Sewage Treatment Plant Outfall	October 16, 2010	65	Unacceptable
122.5	Gay's Point Midchannel	October 16, 2010	116	Unacceptable
124	Coxsackie Waterfront Park	October 16, 2010	96	Unacceptable
133	Coeymans Landing	October 16, 2010	649	Unacceptable
137	Castleton- Vlockie Kill	October 16, 2010	649	Unacceptable
138	Bethlehem Launch Ramp	October 16, 2010	921	Unacceptable
142	Island Creek/Normans Kill	October 16, 2010	2420	Unacceptable
144.5	Dunn Memorial Bridge	October 16, 2010	488	Unacceptable
146	Albany Rowing Dock	October 16, 2010	921	Unacceptable
151.5	Congress Street Bridge	October 16, 2010	525	Unacceptable
152.5	Hudson River above Troy Lock	October 16, 2010	1986	Unacceptable
155	Mohawk River	October 16, 2010	128	Unacceptable
155.1	Hudson above confluence with Mohawk River	October 16, 2010	2420	Unacceptable

To learn more about Riverkeeper's Water Quality Program, and to view historic sampling data, please visit www.riverkeeper.org/water-quality/hudson.

[View previous months water quality report \(August 2010\).](#)