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Croton Watershed Clean Water Coalition



NYC WATER RATES SOAR AS OUTRAGED RESIDENTS STRUGGLE TO PAY:

Demand DEP Accountability and Investment in Better Watershed Protection

NYC Department of Environmental Protection (DEP) increased NYC water rates 11.5% this year and same is expected over next few years. NYC water distribution infrastructure repairs of \$26 billion are projected. Van Cortlandt Park chemical treatment/filtration plant contractor has withdrawn and cost with a new contractor is estimated at \$2.9 billion and rising. The original estimate was \$750 million that rose to \$1.3 billion, then \$1.5 and is presently at \$2.9 billion, finished cost unknown. Cost has risen of chemicals, fuel, electricity and transportation that will heighten maintenance expenses once plant is built. Together with unwise, increased development pressures in Croton Watershed due in part to the coming filtration plant, DEP

would do well to consider Membrane Filtration instead of Dissolved Air Flotation (DAF) and obtaining federal assistance to subsidize these catastrophically expensive increases and yet-to-come infrastructure costs in the tens of billions of dollars.

CWCWC maintains that information in public domain demonstrates a reasonable probability that membrane filtration would be more effective than DAF because it would be an absolute barrier against pathogens. A membrane plant would have less environmental impact because of much smaller size, use much less power, and would use and store a small fraction of chemicals as needed for DAF. The membrane facility would cost only

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New Croton Reservoir

NYC Water Rates Soar, *(cont'd from page 1)*

about 25% as much as DAF and provide some relief to water rate payers from relentless rate increases. CWCWC, Inc.'s Watershed Management Plan 2007 should be given close attention by the authorities (a synopsis is included in this newsletter).

Bronx and Manhattan residents including CWCWC, Inc. board members Fay Muir, president, and David Ferguson, vice president, spoke at recent NYC Water Board Rate Hearings in their respective boroughs. The following are excerpted from their remarks:

Water/Wastewater Cumulative Increase Rate History

*If your water & sewer charge
had been \$100 in 1987*

	Percentage of increase	Amount of increase	Cumulative total cost of water
1987	0%	0	\$100.00
1988	9.0%	\$19.00	\$119.00
1989	14.0%	\$16.66	\$135.66
1990	24.3%	\$32.97	\$168.63
1991	22.9%	\$38.62	\$207.25
1992	18.5%	\$38.34	\$245.59
1993	9.8%	\$24.07	\$269.66
1994	0%	0	\$269.66
1995	0%	0	\$269.66
1996	5.0%	\$13.48	\$283.14
1997	6.5%	\$18.40	\$301.54
1998	6.5%	\$19.60	\$321.14
1999	4.0%	\$12.85	\$333.98
2000	4.0%	\$13.36	\$347.34
2001	1.0%	\$ 3.47	\$350.81
2002	3.0%	\$10.52	\$366.38
2003	6.5%	\$23.49	\$384.87
2004	5.5%	\$21.17	\$408.04
2005	5.5%	\$22.33	\$430.37
2006	3.0%	\$12.91	\$443.28
2007	9.4%	\$41.67	\$484.95
2008	11.5%	\$55.77	\$540.72

Fay Muir, Clean Water For The Bronx NYC Water Board Rate Hearing Lehman College, Bronx April 25, 2007

Clean Water for the Bronx is a grassroots organization concerned with clean and safe water at the source and in its delivery system.

I am a 30-year resident of the Bronx and live in the Norwood community. The Department of Environmental Protection (DEP) has announced that the contractor for the Van Cortlandt Park water treatment plant (WTP) has withdrawn and they face increased costs to get another contractor. It would seem reasonable, at this time, to rethink the decision to build a dissolved air flotation (DAF) facility.

A filter screens out pollutants, a DAF filtration plant processes with harmful chemicals. Change to a more modern, more effective and cheaper method, a membrane filtration plant could be expected to be 1000 times more effective in removing such pathogens as Cryptosporidium. (6-7 log reduction compared to 3-4 log reduction with DAF). This result is confirmed by EPA. Pathogen removal is the single most important objective of a water system.

The main threat to clean water is unwise real estate development of the land which naturally filters with millions of organisms that consume products harmful to humans. In addition, the impervious surfaces created by structures produce heat which contribute to global warming and prevent infiltration for water filtration by natural means.

The global warming issue is definitely a water issue because of the hydrologic cycle, i.e., evaporation from the oceans, cloud formation, rainfall on land, then runoff back to the oceans. As the climate changes we are guaranteed negative effects on water resources. Higher

(cont'd on page 3)

Water Rates Soar, *(cont'd from page 2)*

temperatures will affect snowfall; what does fall is going to melt earlier and faster bringing floods. More droughts will occur since the lessening amounts run off sooner and disappear earlier. Since climate change brings about extremes, critical emergencies could occur because of storm frequency and intensity.

Infrastructure has been the focus to deal with our water problems. This has brought high costs plus environmental damage as well as social and economic problems and has not solved our water woes. In addition, we face aging systems and storm damage from climate change. Our Norwood neighborhood has been the recipient of this \$1.5 billion (and rising) DAF WTP which has destroyed much of our precious parkland - our quality of life. The traffic nightmare we experienced and the spike in asthma hospitalizations are only going to get worse when the site preparation ends and building construction begins.

Also, with no proposed backup electrical power for the DAF plant and climate change threatening severe storm activity, our community faces many other risks. A membrane plant will diminish the number and severity of the risks we will face both in the community and at the water source. These dire effects were pointed out years ago in community testimony at the public hearings, along with the risks of blasting into bedrock literally across the street from apartment buildings. Now cracks are appearing in foundations and, of course, nobody wants to accept responsibility. It is important that DEP decisions incorporate the least harmful methods to protect the public drinking water system as required by the City and State Environmental Quality Review Act. Therefore, DEP should seriously consider using membrane filtration.

In evaluating a membrane system, maintenance costs will be significantly lower since it uses a fraction of the chemicals compared to a DAF plant. The DAF electrical usage is triple the needs of a membrane plant. The membrane plant's footprint would be approximately one-third the size of the proposed DAF plant and half the present estimated cost. A new contractor will mean a higher estimated cost which the public has to bear.

In light of the fact that DEP is requesting an 11.5% rate increase, we question the decision-making process to determine such a high figure.

The disparity between what the decision has been for Van Cortlandt Park and what seems the logical choice for filtration brings into question other decisions which might affect rate increases. In addition, several promises have not materialized which were made to the host communities for the WTP so we feel uncertain about the credibility and accountability of DEP.

Furthermore, DEP, contrary to its own research results has placed the Croton Water source at serious risk by allowing close to double the amount of phosphorus pollution into the reservoirs.

Rate increases do not guarantee that good decisions are made to ensure the future viability of our water and wastewater systems. We hope that DEP will be discerning in their decisions in order for the public to have confidence that their dollars are wisely used and rate increases are justified.

Thank you for this opportunity to comment.

Comments on the NYC Water Board proposed 11.5% increase in water & sewer rates.

*David Ferguson, The HDFC Council
April 26, 2007*

The HDFC Council represents some 1300 cooperative buildings throughout the city and is a member group of the Croton Watershed Clean Water Coalition (CWCWC).

Why we can't afford to continue short changing protection of the Croton watershed:

- As noted in the Water Board Blue Book, the Catskill and Delaware aqueducts will have to be shut down in the future for repairs. For the past 14 years the Delaware aqueduct has been losing some 35 million gallons a day from a leak located 600 feet below the town of Newburgh.

- In times of drought the Croton supplies up to 30% of the city's water. At least two Croton reservoirs periodically contribute to the Cat/Del water supply.

(cont'd on page 4)





Water Rates Soar, *(cont'd from page 3)*

- The Croton chemical treatment/filtration plant now under construction has no backup power supply to filter Croton water during emergencies such as the regional power black outs or terrorist attack on our power supply. If a major power black out and/or attack occur during a drought, especially during the years it will take to repair the Cat/Del aqueducts, the quality of Croton source water would be critical to the health of New Yorkers. The “boil water alert” DEP would issue if Croton water had to bypass the filtration process would not eliminate chemical pollutants from stormwater runoff.

- Nor is filtration a magic bullet. The better the water coming into the plant the better the water coming from our taps. The worse the source water the more costly chemicals have to be used to process the water.

The “measles map” cites 36 proposed developments that threaten Croton water quality with gigantic shopping malls and subdivisions. These projects would pave over the watershed, preventing rain water from being naturally filtered by the Croton watershed’s excellent soils, soils held in place by the roots of trees that would no longer be there to prevent erosion, take up pollutants, shade streams and break up the erosive force of storms with their leafy canopies.

Trees would be replaced by parking lots and roads, impervious surfaces collecting a cocktail of carcinogenic pollutants deposited by cars and trucks and washed into the water supply by rain. The rain, without soil and vegetation to absorb it, drains off into channels with increasing velocity and force, eroding protective soils which become fine particled sediments to which pollutants and pathogens adhere, requiring increased use of filtration’s chemicals to settle them out.

Croton land acquisition

If DEP can find \$200 million to encourage Bronx

politicians to support the Van Cortlandt Park site, surely \$200 million could be found to acquire land to preserve the source of the water to be filtered. EPA never tires of telling us that it’s a multi-barrier system – protect the watershed and filter. Land acquisition is the best way to protect a watershed. Land purchase funds can also be leveraged by joining consortiums as DEP did at Eagle River.

Conscientious review of proposed developments

Former DEP Commissioner Al Appleton has expressed puzzlement as to why DEP hasn’t made common cause with Croton watershed residents fighting horrendously unwise development projects every day. After working for ten years with these dedicated people, I remain ashamed of my city for avoiding the principled determination and vision they have shown in protecting our city’s water at the source. Town boards don’t often have the resources nor all too often the political will to oppose developers with deep pockets. Our allies need and deserve the City’s support.

A sounder and cheaper way to filter

Now that Perini Corp. has bowed out of their \$1.3 billion bid and the City is looking at the next bid of \$1.5 if Slattery Skanska * chooses to take the job, it may be a good time for DEP to give a serious look at membrane filtration. It would be simpler, at a fraction of the cost to build and operate, and provide more comprehensive removal of pathogens and even chemicals. In keeping with Mayor Bloomberg’s global warming concern it would also require a fraction of the 22-32 megawatts the DAF plant would consume.

Graphic misrepresentation

Finally, with regard to the misleading bar graph on page 9 of the Blue Book –“Water/Wastewater Rate History”: While 24.3% in 1990 may look like a lot more than the 11.5% proposed for 2008, the fact is that increases are cumulative. If your water bill was \$100 in 1987 then the 1990 rate increase amounted to \$32.97 for a

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total bill of \$168.63. The proposed 11.5% increase for 2008 adds \$55.77 for a total bill of \$540.72. Water rates have increased 440% since 1987.

I will end by thanking you for your attention and recommending that, given a capital budget fast approaching tens of billions of dollars, the City Comptroller audit DEP

**Article by Anne Michaud, New York Business.*

The HDFC Council

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Croton Watershed Management Plan 2007

CWCWC, Inc. announces its updated long-term management plan for Croton Watershed, a critical component of NYC water supply as well as Westchester and Putnam Counties. Croton water is of naturally high quality but reliance on the \$2.9 billion chemical treatment/filtration plant being built in Van Cortlandt Park has resulted in neglect of Croton Watershed protection and degradation of its source water quality. The quality of water going into a water treatment plant determines the quality of water after processing.

The watershed's natural protectors – forests and wetlands – are disappearing under increased, unremitting impacts of unsustainable development to the detriment of water quality in streams, reservoirs, and the groundwater that supplies local wells.

The Watershed Management Plan explains how to protect the watershed through judicious land acquisition; protection of forests, wetlands, streams and their buffers; upgrading sewage treatment plants; limiting impervious surfaces; using correct phosphorus export coefficients in new development stormwater runoff, and many other techniques. The purpose of the Management Plan is to serve as a resource for City, town and county planners as well as citizens' groups.

We challenge the regulatory authorities, NYC, Croton Watershed Town and County officials to save our water quality by using this Plan. Clean and safe water would result as well as low cost. Instituting these measures would improve the quality of Croton water beyond its present good quality and remain that way for the future. An outline of the Plan's Executive Summary follows:

This Management Plan is intended to improve the present high quality of Croton water by implementing these components. The high quality water can be attributed to the Croton's natural "immune system" - a combination of a profusion of wetlands, glacial till plus abundant reforestation after the disappearance of farming.

Land Acquisition - Within three years, the City should protect, either by outright purchase - alone or in partnership - or through conservation easements, half of the 17,000 acres that need protection.

Controlling Stormwater Runoff from Nonpoint Sources - Stormwater runoff carries with it a heavy load of phosphorus, 85% from nonpoint sources. As little as 10% impervious surfaces can cause streambank erosion. Watershed protection should begin at the small headwater stream level so as not to allow erosion by sediment carried downstream.

(cont'd on page 6)





Management Plan, *(cont'd from page 5)*

Site-specific data should be used when estimating pollutant removal capabilities of proposed stormwater abatement devices. Levels of phosphorus runoff should be kept at pre-development levels or below in order to comply with US EPA Phase II stormwater regulations. Active involvement by Department of Environmental Protection (DEP) and NYS Department of Environmental Conservation (DEC) is essential in assisting town and planning boards to review site plans since the Phase II compliance places a heavy burden on small towns.

Controlling Phosphorus Damage to the Croton Reservoirs - DEP has ascertained how much phosphorus emanates from different land uses such as urban, farm, forest etc., called "export coefficients." Since most of the undeveloped land in the Croton Watershed is forested, this export coefficient is of special significance.

The incorrect phosphorus export coefficients that developers are being allow to use for forested lands result in close to twice the amount of phosphorus entering the reservoirs.

Appropriate site-specific standards should be used by DEP and DEC in stormwater calculations for developments in the Croton Watershed whenever possible.

Reducing the Impacts of Widening Route 22 - Within the Croton Watershed, in particular, the NYS Department of Transportation (DOT) is a regulated Municipal Separate Storm Sewer System (MS4) that has to comply with the Phase II Stormwater Regulations. These regulations prohibit any increase in phosphorus from construction or other activities to a phosphorus-impaired reservoir.

Route 22 runs between and in close proximity to two Croton reservoirs, the Bog Brook and the East Branch of which the latter is phosphorus-impaired. Widening the road will merely attract more traffic. In a few years, the same intolerable traffic congestion will re-occur.

Protecting Wetlands - Wetlands are invaluable resources in the watershed, purifying water by absorbing pollutants, controlling floodwaters, and recharging the groundwater aquifers that, in turn, are connected to the streams and reservoirs.

CWCWC initiated and led the campaign to have the East of Hudson Watershed designated as Critical Resource Waters (CRW). This designation means that the most egregious Nationwide Permits that allow activities affecting waterbodies to receive automatic approval are cancelled.

On January 9, 2001, the U.S. Supreme Court rendered the SWANCC (Solid Waste Agency of Northern Cook County) decision. The Court ruled that the U.S. Army Corps of Engineers lacked statutory authority to regulate activities in non-navigable, isolated intrastate water. The ruling is being challenged. Therefore, whether the CRW designation includes isolated wetlands remains to be decided in the courts.

We recommend that the safeguards against wetland impacts that are implicit in the CRW designation should be fully enforced by the lead agency during the site plan review of any application where wetlands or other waterbodies are involved.

Maintaining Effective Buffer Widths - Wetland buffers remove soluble nutrients; reduce thermal impacts to streams and waterbodies as well as wetlands; reduce erosion, and provide infiltration thereby restoring the chemical, physical and biological integrity of water resources. According to the National Conservation Service, water quality benefits are significant when buffers exceed a minimum of 100 feet and recommends buffer widths of 150 feet. We recommend that buffers should remain thickly vegetated, that 150 feet should be the minimum width, and that stormwater devices

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be prohibited within buffers.

Wetlands Mitigation - Until the success rate in man-made wetlands mitigation is much improved, we recommend that mitigation not be an option that allows for the destruction of natural wetlands.

Protection of Forests - Watershed forests, together with wetlands, are at the root of the Croton's extraordinary robustness that enables it to withstand the insults and assaults perpetrated by poorly planned development.

Section 480-a of the Real Property Tax Law resulting from the 2002 Farm Bill gave landowners license to view their forests as crop production. DEC had planned to clear cut 15 forested acres of Mt. Nimham and selectively cut the biggest and best trees on an additional 60 acres from an 87-acre plot, i.e. those that provide the biggest cash return as lumber. No clearcutting of Mt. Nimham should take place unless the DEC can prove conclusively that its proposal will improve water quality in the West Branch and Boyds Corner reservoirs, as claimed.

Additionally, we recommend that town planners should be encouraged and given technical assistance in incorporating strong tree protection laws into their town codes.

Prevention of Groundwater and Stream Contamination - Pharmaceuticals could contaminate streams and reservoirs unless wastewater treatment plants are upgraded. Septics should be inspected on a regular basis and repaired or replaced as needed. So far, no pharmaceuticals have been detected in NYC tap water.

Waterfowl Management Program - Although one of the DEP's most successful programs, it nevertheless falls short of the mark. We recommend that DEP expand their Waterfowl Management Plan to all reservoirs in order to protect consumers.

Wastewater Treatment Plant (WWTP) Upgrades or Diversion - At the strong urging of CWCWC and other organizations, DEP decided to upgrade its Hallock's Mill WWTP in Yorktown to the tertiary levels required by the 1997 Watershed Agreement. However, the decision whether to upgrade various sewage treatment facilities in New Castle or divert their effluent to the county-owned WWTP in Yonkers has yet to be made.

Infiltration and Inflow (I&I) - Infiltration occurs when groundwater seeps into the pipes through cracks and breaks. Inflow is the influx of stormwater due to missing caps on lateral pipes, missing manhole covers and illegal hookups. CWCWC recommends that there be no increases to sewage discharge into the watershed reservoirs until Infiltration & Inflow has been reduced to the maximum extent practicable.

Infrastructure Repairs - The Croton distribution system in the City has a critical role in maintaining water quality. The ancient, rusty pipes in the distribution system will undoubtedly contribute to the color and turbidity problems of Croton water. In addition, their proximity to the ancient, rusty sewer pipes creates a serious threat. Rehabilitation of the distribution system is essential since water treated at the filtration plant being built will pick up pollution as it travels through these ancient, rusty pipes and negate the effects of treatment.

We cannot survive without clean, safe and affordable water. We are fortunate to live in an area where water is high quality and abundant. With awareness and immediate action, it is still possible to maintain this excellent natural resource. If we delay implementing these measures, our water may be degraded beyond recovery. The result will be inferior and far more expensive water.

If you'd prefer receiving an electronic version of the bi-monthly newsletter, please send your email address to crotonwshed@aol.com.



The Croton Watershed Clean Water Coalition strives to protect and improve the waters of New York City's Croton Watershed, a critical component of the water supply for over half the population of New York State. We are an alliance of individuals and groups who believe that safe, clean and affordable drinking water is a basic human right.

Send in your membership and receive membership mailings and a subscription to CWCWC newsletter "Our Water, Our Future." Most importantly, your membership will help you get involved with the preservation of one of our most precious resources, our water.

Croton Watershed Clean Water Coalition Membership Application

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Email: _____

- | | | | |
|---|-----------|--|-----------|
| <input type="checkbox"/> Group/Coalition Membership | \$50/year | <input type="checkbox"/> Students/Seniors | \$10/year |
| <input type="checkbox"/> Family Membership | \$25/year | <input type="checkbox"/> Other | \$ _____ |
| <input type="checkbox"/> Individual Membership | \$20/year | <input type="checkbox"/> Additional Contribution | \$ _____ |

Is this a Renewal or a New Membership? (Circle one)

Make checks payable to Croton Watershed Clean Water Coalition, Inc. and mail along with your membership form to:

Don Pachner, Treasurer, CWCWC, INC., PO Box 484, Bedford NY 10506



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CWCWC member groups!
Don't forget to sign onto the
phosphorus reduction program!
This issue could radically improve the
protection of the Croton Watershed!
See inside.

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