



Croton Watershed Clean Water Coalition



Issue 41
NOVEMBER
DECEMBER
2007

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The Devil's in The Details

DEC's Abandonment of Water Quality Protection in the Croton Watershed

by Marian H. Rose, President Emeritus

The New York State Department of Environmental Conservation (DEC) is on the verge of approving new stormwater regulations for the Croton Watershed effectively abandoning the Total Maximum Daily Load (TMDL) program in violation of the Clean Water Act (CWA).

Storm water runoff from existing or new development is considered to be one of the most dangerous threats to water quality in a watershed. Water careening down a hillside



from a heavy storm can carry with it an array of pollutants attached to sedimentary particles that get washed into streams, lakes, wetlands and reservoirs. In particular, if

much of the land has been rendered impervious by development, there will be only scarce opportunity for infiltration of pollutants prior to the storm water reaching our reservoirs.

I. EXISTING FEDERAL LAW

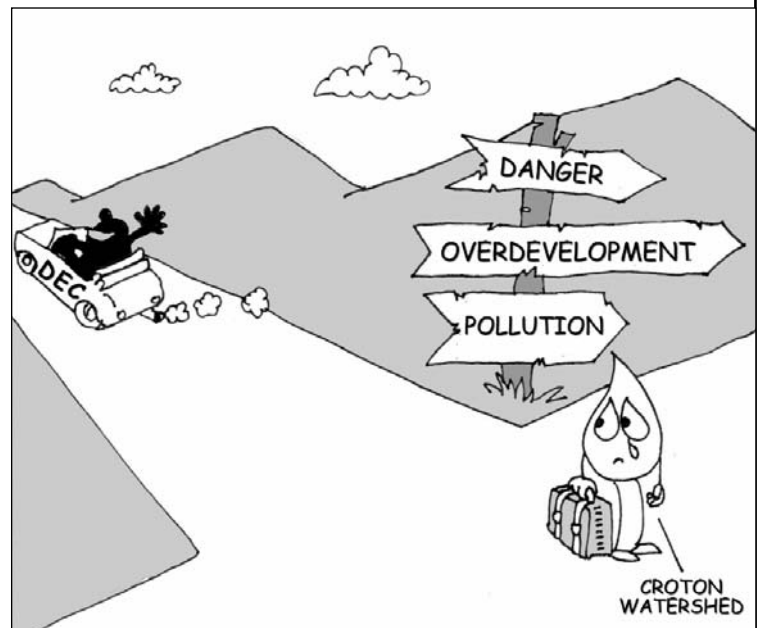
Under §402 of the Clean Water Act, the federal government has enacted a series of regulations that have progressively included broader categories of contributors to reduce such harmful runoff. These regulations are promulgated by the US Environmental Protection Agency (EPA) and include the National Pollutant Discharge Elimination System (NPDES) permits. The States are then free to adapt these to their own needs provided that the State regulations are no less stringent than the EPA's.

A. EPA's Phase II Stormwater Rule

Among the regulated contributors to storm water pollution are the so-called MS4s (Municipal Separate Storm Sewer Systems). Under the EPA regulations, an MS4 is defined, in part, as "A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains)..." that is "owned or operated by a State, city, town, borough, county, parish, district association, or other public body" (e.g., the NYS Department of Transportation).

The entire Croton Watershed, because of the vulnerability of its reservoirs to phosphorus pollution, has been included in the EPA's Phase II program that applies to regulated small MS4s. Indeed nine

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The Devil's in The Details (cont'd from page 1)

out of the Croton's ten reservoirs are phosphorus-impaired and eight have been assigned reductions in phosphorus loads pursuant to the Total Maximum Daily Load (TMDL) program under federal and state law. Each municipality within the watershed of any given reservoir is assigned an amount of phosphorus reduction based on its estimated contribution. These reductions have been approved by both NYS and the federal EPA.

The Phase II regulations also apply to construction activities within the Watershed. As an example, during construction, a permit is required for land disturbances as small as one acre. DEC's new permits are to come into effect on January 8, 2008 to regulate land disturbances as small as 5,000 sq. ft.

EPA's Phase II program requires regulated small MS4s to comply with six Minimum Measures. These are included in DEC's existing regulations. EPA's Minimum Measures 4 and 5 are critical to water quality protection.

For example, Minimum Measure 4 (see EPA Fact Sheet 2.6 - Construction Site Runoff) states: "The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement and enforce a program to *reduce (emphasis added)* pollutants to their MS4 from construction activities that result in a land disturbance greater than or equal to 1 acre..."

Similarly, Minimum Measure 5 (see EPA Fact Sheet 2.7 - Post-Construction Runoff Control) states "The Phase II Final Rule requires an operator of a regulated small MS4 to develop, implement and enforce a program to *reduce (emphasis added)* pollutants in post-construction runoff to their MS4 from new development and redevelopment projects that result in a land disturbance of greater than or equal to 1 acre."

B. DEC's Existing Phase II General Permits

Patterned after EPA's rules, DEC's current regulations include six Minimum Measures under GP-02-02, the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from MS4s.



Minimum Measure 4 reads, in part: "An MS4 must, at a minimum, develop, implement, and enforce a program to *reduce (emphasis added)* pollutants in any stormwater runoff to the small MS4 from construction activities that result in a land disturbance larger or equal to 1 acre."

Minimum Measure 5 reads, in part: " An MS4 must, at a minimum:

(a) Develop and implement a program that

i) includes a combination of structural and/or non-structural management practices appropriate for the community that will *reduce (emphasis added)* the discharge of pollutants to the maximum extent practicable;

iii) ensures adequate long-term operation and maintenance of management practices, including monitoring to determine whether the practices are "reducing" (*emphasis added*) the discharge of pollutants to the maximum extent practicable.

(b) The program must ensure that controls are in place that would protect water quality and *reduce (emphasis added)* the discharge of pollutants to the maximum extent practicable.

(d) Develop measurable goals and select appropriate management practices to ensure the *reduction (emphasis added)* of all pollutants of concern in the post development stormwater discharges to the maximum extent practicable."

Although the exact amounts are not specified, it is clear that these regulations call for reductions

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The Devil's in The Details (cont'd from page 2)

in phosphorus below the levels that emanated from the land prior to being developed. Otherwise, the reductions specified in the TMDL program could not be achieved.

How a Small Change Can Make a Large Difference in Water Quality

Engineers for mega-developments in the Croton Watershed, such as Kent Manor and Patterson Crossing, claim that their proposed storm water management devices will reduce phosphorus to below pre-development levels. CWCWC claims that their figures are based on pre-development levels that are too high and therefore, the amount of reduction needed to go below pre-development levels is too low.

CWCWC bases its argument on a 1996 study by the New York City Department of Environmental Protection (DEP) which included analysis of 195 pollutant loading studies which DEP cited in establishing the TMDLs for Croton reservoirs. ["Methodology for calculating phase 1 total maximum daily loads(TMDLs) of phosphorus for New York City drinking water reservoirs" June 1996] DEP selected 11 studies completed in NY and CT which most closely resembled conditions in the Croton. DEP took the average of the 11 studies determining that 0.05 kg/hectare-year (kg/ha-yr) was an appropriate export coefficient from forested areas. The export coefficient was less than half the export coefficient DEC had published in its 1993 Stormwater Guidance



Manual (0.10 lbs/yr) which was tabulated from older studies from Northern Virginia and which the Terrene Institute recommended based upon conditions in the Pacific Northwest.

Most undeveloped land in the Croton Watershed is forested, and using the best figure for this particular export coefficient is critical. CWCWC maintains that developers should use the TMDL figure. Yet, they are still using the 0.1 figure with no objection by DEP or any other regulatory agency.

Thus, Croton reservoirs are being subjected to a double whammy. The TMDL calculations use the low figure for the amount of phosphorus entering the reservoirs while, at the same time, developers are allowed to use the high figure and, therefore, underestimate the reductions they need to make to be in compliance with the regulations.

Is it any wonder that phosphorus levels are increasing in the Croton Reservoirs, according to DEP's own figures, and that the most recent victim is the Bog Brook that has recently been declared phosphorus-impaired?

DEC's New Permits will Increase Phosphorus Loadings to the Croton

New General Permits for MS4s (GP-0-08-002) and Construction Activity (GP-0-08-001) are due to be issued on January 8, 2008 and will supercede GP-02-02 and GP-02-01.

There will be no further need to argue about export coefficients. That issue will be rendered moot by no longer requiring a reduction in phosphorus to levels below those from the undeveloped land. Instead, Minimum Measure 5 (Post-Construction Stormwater Management) gets morphed into the following requirement:

a. *Develop, implement and enforce a program to address post-construction stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one (1) acre. This includes projects of less than one acre that are part of a larger common plan of development or sale. At a minimum, the program must provide equivalent protection to the NYS DEC SPDES General Permit for Stormwater Discharges from Construction Activity and must*

include *development and implementation of:*

i. an ordinance or other regulatory mechanism that requires post-construction stormwater management controls designed in accordance with the latest versions of the New York State Stormwater Management Design Manual and the Enhanced Phosphorus Removal Criteria....

The Enhanced Phosphorus Removal Criteria are described in Chapter 10, 5th Draft, November 8, 2006 of the Manual. The minimum required control is to "reduce runoff volumes to the maximum extent practicable". Maximum extent practicable (MEP) translates into installing storm water practices to treat the 1-year, 24-hour design storm over the post-development watershed. According to the Manual, these practices would remove 80% of particulate phosphorus and 60% of dissolved phosphorus post-construction.

These regulations do not require examination of pre-existing conditions. Proper basin design will achieve an 80% reduction and that is all that is required. Yet, the Watershed Rules & Regulations state (see §18-39(c)(1): "When any activity...is proposed to be undertaken in a phosphorus restricted basin, the stormwater pollution prevention plan shall include an analysis of phosphorus runoff, before and after land disturbance activity." Are WR&R regulations being contravened?

Moreover, there is no longer a requirement to achieve a reduction in phosphorus to comply with the TMDLs. On the contrary, this new regulation could allow an increase in phosphorus entering the reservoirs. In the case of Patterson Crossing, for example, a simple calculation shows that there will be a very considerable increase in phosphorus if 60+ acres of the originally forested 90 acres are converted to impervious surfaces.

Is the Clean Water Act being contravened? This is an interesting question for the attorneys to decide.

Conclusion

Close to 3,000 acres in Putnam County are controlled by developers (see CWCWC's July/August 2006 newsletter). Some are already in the midst of the SEQR process. If the new permits in their present form are approved, the effects on Putnam County and on water quality in the Croton reservoirs could be devastating.

Written comments on the proposed new general permits will be accepted no later than 12/10/07 and may be sent to:

Theresa Diehsner
NYS DEC, Division of Environmental Permits
625 Broadway - 4th Floor
ALBANY, NY 12233-1750

518-402-8277
TXDIEHSN@GW.DEC.STATE.NY.US

The author wishes to thank attorney James B. Bacon, Esq. for his valuable comments.



OPEN SPACE PRESERVATION - FALLEN FROM GRACE?

by Ann Fanizzi, Board Member

Almost six years have passed since we basked in the glowing light of the first acquisition by Putnam County of significant amounts of open space - The Tilly Foster Farm in Southeast, a post-card landscape of 200 acres, grazed by horses. Saved from the rapacious grip of developers, the acquisition through East of Hudson funds, appeared to auger a new day for Putnam County - a coming of age for the environmental movement.



Little did we envision the twists and turns of the last few years, as the grip of developers was replaced by the grip of political maneuverings and Tilly Foster became a convenient pawn in the Byzantine dealings between the County Legislature and the County Executive. But it also reflected changing economic times as deficits replaced surpluses. Tilly became the poster child of County mismanagement without apparent return or benefit to the residents. It had lost its inherent value aside from the ink on an accounting sheet.

Sentiment among the populace for open space preservation had plummeted as harder questions of taxes and health care took center stage. The Dyson Foundation and Marist Institute of Public Opinion survey, "Many Voices One Valley 2007", confirmed the declining support. Comparing data from 2002 to 2007, protecting open space dropped from 4th to 7th place, with economic issues, especially reducing taxes ranking first in priority among Putnam County residents. Throughout this period, support wavered as a Putnam County ballot initiative in 2005 calling for a \$20 million open space bond, was defeated narrowly by the voters, while at the same time, in 2006, Town of Southeast voters approved by a 30-vote majority a \$5 million bond fund. It was obvious that ambivalence was deepening among the electorate and that open space preservation was being shipwrecked on the hard rocks of economic realities.

Against this backdrop, I sought to bring back the discussion to the value of open space preservation, especially for Tilly Foster but did so in the context of the changing economic realities facing the residents and the county. I entitled the piece, "A Vision for Tilly." It was in prelude to the Putnam County Legislative Budget Hearings of October 2nd and it follows below:

A VISION FOR TILLY

Adversity brings opportunity. And I wish to speak to those of my fellow residents who not only see the todays of living in Putnam County but the tomorrows on the horizon. It is a vision for Tilly Foster Farm, one that protects its integrity and its financial viability.

Whether one agrees or disagrees with the concept of the hotel project in Carmel, it will be a reality. But for the traveler and his family, a hotel stay should not be the end of his

destination but its beginning. We must give them a reason to come and stay - an eco-destination, the center of which could be the entire area once known as the Hamlet of Tilly Foster which included the Tilly Foster Iron Mine and Tilly Foster Farm and extended five miles into the Village of Brewster. Together with Centennial Golf Course, it would offer families a truly memorable stay in Eastern Putnam comparable to that currently enjoyed - and lucratively I might add - by Phillipstown, Garrison and the Village of Cold Spring on its western border.

Towns and villages across the nation have responded to a deep need by Americans made rootless and insecure by the complicated and unforgiving demands of modern life for a touch of simpler but enduring values as evidenced in unspoiled nature and connection to the country's historical past. Against this background, eco-tourism has grown to become one of the fastest growing segments of the American economy, bringing in billions in revenue from passive recreation such as hiking and camping and filling its historical places with tourists eager to grasp the past in their search for answers to present dilemmas.

We cannot afford not to capitalize on this growing and profitable trend of eco-tourism and we must not permit the blickered "bean counters" of the present to abort this vision of the future, one rooted in real needs and real financial returns.

Tilly Foster fulfills all these needs and more: the historical and the natural. As a model of the county's historical past from Colonial Times to its last private owners, the Benedicts, Tilly can offer the resident and visitor alike a backward glimpse at farm life as lived in Putnam County while at the same time, offering awesome views of Putnam's incomparable landscape and in the process, the farm will gain sure financial footing.

But there will be an added dividend. As the fulcrum around which the spokes of eco-tourism turns, Tilly Foster's proximity to the iron mine and to the Village of Brewster will offer residents and tourists alike a glimpse into life as lived by the first residents of the county and will be a boon to subsidiary businesses along the way.

For this vision to happen, we cannot permit "bean counters" to blind us to these continuing and expanding benefits for the county and its people. It was the vision of residents that urged that Tilly Foster Farm be preserved. We must again rise, protect what we have fought for and move on to the next level. Fellow residents, let's speak to the future. Embrace this vision. Protect our past heritage as a legacy for the future.

Peach Lake Sewer Project

by Suzannah Glidden, Board Member

The SEQRA process is beginning for the sewer and wastewater treatment plant (WWTP) construction project at Peach Lake. The lake's northern half is in Southeast, Putnam County, where the WWTP will be sited and where the Southeast section of Vail's Grove community (123 homes) will be served; its southern half is in North Salem where the greater number of homes (331) will be served.



B. 4 in the IMA says the approval of a sewer district will go into effect if the Water Quality Investment Fund East of Hudson (EOH) monies from both counties are released. The Town is seeking \$10 million from Westchester EOH funds which will complement \$2.5 million from Putnam. Substantial additional grant funding will be needed for affordability.

The Inter-Municipal Agreement (IMA), approved June 7, 2007 by North Salem and Southeast, determines project terms and the method by which Peach Lake residents will be taxed for construction, use and operation and maintenance. The IMA does not address the way in which individual hook-up charges will be financed or the annual per household cost of treatment. Cost estimates will appear in the final Map Plan and Report (MPR) due soon.

While the Peach Lake sewer project is being established by a DEP variance that allows only failing or soon to fail septic systems to be included, the IMA states in section H that new residences or businesses within the district's boundaries can buy into the district providing there is sufficient excess capacity, subject to prior approval of governmental agencies or entities having jurisdiction over the district. DEP has repeatedly stated that no new development would be allowed. A handful of commercial properties at lake's southeast corner are included in the proposed sewer district and possibly proposed Peach Lake Commons. Peach Lake SPDES permit is being capped at 210,000 gallons per day.

A total project cost of \$23 million was originally estimated but was recently cut to a figure we are waiting to review in the final MPR. The cost for recently completed Village of Brewster sewer and WWTP project for 420 service connections was \$27.8 million for a slightly larger 240,000 gpd plant. This figure also includes \$3.3 million DEP contribution for individual service connections across private property. Easements were lengthy and costly.

Brewster's house connection contract was awarded at \$4.3 million at an average of \$4,306 per connection. Approximately ¼ of it will be borne by ratepayers at \$1 million. In addition to house connections, septic tanks will be filled and bypassed to DEP and BOH standards. 95% of the connections are made and they are processing about 130,000 g/p/d of wastewater. Brewster's collection system was completed in 2005 with a projected base line of \$2500 per household. Its WWTP went online November, 2006. Since then oil and subsequent costs have significantly risen.

\$1360 was the projected annual per household cost. It was reduced to \$800 by North Salem Supervisor Globberman who wrote Peach Lake residents that he will try to obtain enough additional grant money from the DEP to bring the yearly price to \$800 per household. In addition, each household would have to pay for its lateral and grinder pump plus annual maintenance if these costs are not included in the sewer project set forth in the final MPR. A petition with the \$800 per household cost will be circulated in early December in the hopes of subsequently receiving the additional grants that would reduce the cost from \$1360 to \$800.

The purchase contract for the property upon which the WWTP will be located and the access thereto has recently been signed. With this in hand along with Environmental Assessment Form (EAF) Part I, final MPR and IMA, the release of WQIF EOH funds can be requested.

On November 13, 2007, North Salem town board passed the Resolution to Declare Intent to be **Lead Agency** for the North Salem part of this project in a **coordinated SEQR review** [SEQR 6 NYCRR Part 617.6 (b)(3)] of this **Unlisted Action** for Peach Lake Sewer District. The 30-day clock of the right of involved agencies to consent or object (NYSDEC, NYCDEP, NYSDOT, NYS Health, Office of State Comptroller, Westchester DOH, Army Corp. of Engineers) starts on the day the Notice of Lead Agency, attached MPR with IMA, and Full EAF Part 1 are mailed to agencies.

Because of the size and impact of this environmental project and the complication of it serving two counties in two towns, breaking it into two separate State Environmental Quality Reviews (SEQRs) makes it more efficient. It will be DEC's ruling whether segmentation is at play necessitating a single SEQRA with each town acting as co-lead agencies. The town engineer has said it would be an easy matter to combine the two without delay.

On November 13, 2007 North Salem town board also approved the **Environmental Assessment Form (EAF) Part 1** which applies to North Salem's portion of the sewer project. While the EAF Part 1 notes the level of some environmental impact, it is Part 2 where

environmental impact is addressed and analyzed in depth since it determines the level of significance of noted impacts. As stated in Part 1:

"Part 1: Provides objective data and information about a given project and its site. By identifying basic project data, it assists a reviewer in the analysis that takes place in Parts 2 and 3.

Part 2: Focuses on identifying the range of possible impacts that may occur from a project or action. It provides guidance as to whether an impact is likely to be considered small to moderate or whether it is a potentially large impact. The form also identifies whether an impact can be mitigated or reduced.

Part 3: If any impact in Part 2 is identified as potentially large, then Part 3 is used to evaluate whether or not the impact is actually important."

North Salem's EAF Part 1

Attachment's Project

Description does not include repaving roads from curb to curb rather than patching. In Brewster it cost \$1 million. For families just making ends meet, it's necessary to avoid additional, unanticipated costs. We're told there's a 25% contingency being written in that would absorb overruns and other unanticipated costs. For a list of other issues of interest, please visit our website at www.newyorkwater.org, Issues, Peach Lake, EAF Part 1

The draft of Part 2 of the EAF indicates **only small to moderate impacts** rather than potential **large impacts** that might necessitate the Determination of Significance be rendered a positive declaration that requires additional studies in a Draft Environmental Impact Study (DEIS) or full reports in an expanded EAF. Could a large impact occur in extensive blasting of 6000 cubic yards of rock outcroppings common throughout area? How will blasting and installation impact on old water lines?

No impact is noted under construction project taking 2 years that may vary due to weather conditions and unforeseeable delays. Under Proposed action will affect surface or groundwater quality or quantity, will exporting 210,000 gpd to Peach Brook draw down water table substantially when viewed in conjunction with nearby Southeast Durkin Water Company drawdown and future 85 condo-unit Salem Hunt development?

Under Impact on Growth and Character of Community or Neighborhood, a No answer is checked to 'Will Proposed Action affect the character of the existing community?'

Could a potential large growth inducing impact be triggered due to the effect of homes being allowed to expand? A high 3.5 persons per home is used in calculations whereas many cottages have only single residents. 20-year projections cite an increase of 466 persons. What will impacts be on an increase in schools and traffic and on larger use and export of water?

What size is the unmentioned impact of easements that must be procured? For a list of other possible or large impacts, please visit www.newyorkwater.org, Issues, Peach Lake, Draft EAF Part 2.

Part 3 must be prepared if one or more impact(s) is considered to be potentially large, even if the impact(s) may be mitigated. The draft of Part 3 is not prepared and has an attachment "to address any small to moderate impact the Proposed Action may have on the community or the environment." The impacts listed above could possibly have made this a Type I Action.

In Part 2 and 3 Attachment, the proposed sewage construction improvements include amongst other items the replacement and relocation of existing water mains, drainage structures and pipes as needed. Will fixing the silt runoff from our private Peach Lake roads that clogs the north end of Peach Lake and its Peach Brook egress be included in the sewer project? Or will that be an additional cost in the near future under a Drainage District? Will costly dredging be necessary and at what price to residents? 2008 MS4 town, county, state roads stormwater repairs will not address Peach Lake's inner private roads runoff. If these costs will not be included in the sewer cost listed in the final MPR, these are **large cumulative impacts** and costs that need to be reviewed during SEQRA [617.9(b)(5)(iii)] in a Draft EIS.

By the time of this publication, the recently revised Map Plan and Report may be finalized and available for review by the public at North Salem Library behind Town Hall at 266 Titicus Road/Route 116.

After the 30 days have passed for involved agencies to Consent or Object, the next 20-day clock begins within which a **Determination of Significance** will be reached. The final EAF is expected to thoroughly address the potential large impacts noted above and that, if found, a **positive declaration** will be determined that will proceed to a Draft Environmental Impact Study or an expanded EAF with reports to examine the full impacts of this project. We hope to secure additional funds in order to lower the annual cost to residents to move this project along to fruition that Peach Lake residents are eager to accomplish.



Open Space Preservation

by Paul Moskowitz, Board Member

Preserving open space is the best way to assure the quality of the water in our watershed. In 2007, the committee, of which I am a member, received a commendation from the Westchester Municipal Planning Federation. The awards program states -



evaluation system was devised to make recommendations to the Town Board. It included consideration of fiscal implications to taxpayers. A \$30 flat tax for open space was instituted, paid annually by each property owner.

'The Town of Yorktown created a system to identify, inventory and acquire parcels to limit sprawl as well as to protect water, air and scenic qualities and ecological systems and habitats. The Advisory Committee on Open Space was created to develop an Open Space Preservation Plan, identify open space opportunities and enhance community awareness of open space protection. An

Residents also approved authorization to expend \$5 million in bonds, of which the debt service is equal to the annual amount collected by the flat tax allowing it to be leveraged to a larger amount. The preservation process is supported by the Natural Resource Conservation recommendations of the Town's Comprehensive Plan. In recent years, more than 2,000 acres of open space have been protected".

NYC Chapter

by David Ferguson, Vice President

In a tour of the Croton watershed with NYC Friends of Clearwater I was amazed to find that there was still much to learn and a great deal of beauty to enjoy, even after all these years of being acquainted with the watershed. The day ended with a harvest moon rising, reflected on the calm water of the New Croton reservoir to the sound of water falling over the spillway. One hope for next year is that CWCWC will be able to conduct many more such trips, especially for city residents. In the meantime, we invite you to take a virtual tour from our website photos at www.newyorkwater.org.



the Holy Apostles, New York City Council Speaker Chris Quinn's staff and the Bedford-Barrow Street Block Association. The powerpoint educates all about the Croton Watershed issues and introduces the public to the beauty and versatility of this special as well as essential asset of the NY region.

Among the many CWCWC PowerPoint presentations it was my pleasure to join: the Council of Chelsea Block Associations, the Penn South housing community, the Metropolitan Council on Housing, the Church of

We plan to establish a New York City chapter of CWCWC starting with a number of active CWCWC members in the city. City residents from any of the city's boroughs, or readers of our newsletter who would be interested in making certain there continues to be clean and safe and affordable source waters are invited to contact me at FergDavwater@aol.com or by phone - 212 989-0519. Be among the pioneers helping to form such a group in support of our work in the watershed.

The Norcross Wildlife Foundation, Inc. has awarded CWCWC a grant to help underwrite the production costs of our Watershed Management Plan 2007 for which we are most grateful!

Year in Review

by Fay Muir, President

What a year it has been with so many changes within and so many issues without. Through all the frustrations and setbacks, the board has remained steadfast and committed. They deserve tremendous credit for CWCWC's accomplishments this year, some of which are reported below.



five years old, it warranted updating in light of the filtration plant being built and changing conditions brought into play with that decision. The updated Plan is featured on our website and we have been sharing highlights with officials at Town Board and Planning Board meetings. Also, our new video has been completed and can be seen on our revamped website. The powerpoint presentation was also updated and has been well received by citizen groups and regulatory agencies. Let us know when we can share this overview of the beautiful Croton Watershed and the challenges it faces with your organization.

Granite Pointe Contamination

The Granite Pointe proposed development, a former shooting range that has high levels of lead on the property which exceeded NY state guidelines, was rescinded and a Supplemental Environmental Impact Statement required to test for lead and other heavy metals as well as to detail a remediation plan. CWCWC worked with citizen groups and officials to oppose the remediation since the most prudent course of action would be to preserve this property. The remediation endangers the environment because with disturbance to the contaminated land, pollutants may be unintentionally transferred to the reservoir or adjacent properties. At the request of local residents, the Somers Town Board is currently considering acquisition of the property for preservation as open space and seeking acquisition partners

Phosphorus Coefficient

The Kent Manor stormwater potential flooding impacts and very substantial pollution impacts does not meet the stormwater requirements set forth in the DEP Pilot Phosphorus Offset Program (POPP). The negative impacts to the wetlands and their buffers are substantial so we opposed the plan. We pointed out that using site specific phosphorus export coefficients for forests removed would require changes to the project design to bring it in compliance with current stormwater regulations and commonly accepted engineering standards. The Kent Manor phosphorus data from the pre-developed land being used to evaluate the post-development phosphorus export is double the correct coefficient.

Phosphorus Offset Pilot Program (POPP)

CWCWC brought out the fact that the POPP for Brewster Highlands had not been publicly reported or evaluated. DEP examined the POPP of the Brewster Highlands to determine whether their offset program was effective. This important information was examined in order to see whether another offset should be allowed in the Kent Manor development plans. The phosphorus offsets allowed under the 1997 Watershed Memorandum of Agreement (MOA) expired after five years and DEP made the decision to terminate the POPP.

CWCWC Watershed Management Plan 2007

CWCWC Watershed Management Plan 2004 warranted updating in light of the filtration plant. Our Watershed Management Plan (WMP) for the Croton Watershed being

Intermunicipal Stormwater Agreement

The Kisco River Intermunicipal Agreement is a tripartite IMA initiated by CWCWC together with Trout Unlimited and Federated Conservationists of Westchester County. The towns of Bedford, New Castle and Mt. Kisco will collaborate on reducing phosphorus inflow to the New Croton Reservoir via the Kisco River. We hope that other towns will follow this example to help reduce the cost of compliance with the new Phase II stormwater regulations which come into effect in January 2008.

Yorktown Wastewater Treatment

DEP decided to upgrade its Hallock's Mill Wastewater Treatment Plant (WWTP) in Yorktown to the tertiary levels required by the 1997 Watershed Agreement, long advocated by CWCWC. A portion of the East of Hudson funds awarded for upgrade should be used to fix Infiltration and Inflow (I&I) of Yorktown's infrastructure. I&I 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. Problems with I&I must be dealt with before any consideration of an increase in capacity of the WWTP. I&I constitutes a large part of Yorktown's daily flow and must be dealt with to the maximum extent practicable. If sufficient I&I is removed, connecting failing septic systems may be accomplished without any increase in SPDES permit.

Escalating Filtration Cost

The cost of building the chemical treatment/filtration plant has skyrocketed out of proportion. In 2002 it was \$1.327 billion even though the 1991 estimate given was \$250 million. DEP now states the total construction costs have reached \$2.096 billion. Their Fact Sheet of May 1, 2007 outlines that they expect to complete construction by 2012 at a cost of \$2.2 billion. This figure does not include \$243 million for parks mitigation, design for the filtration plant, or construction management. The addition of Parks Department projects, at 20-25% for design and management, a fair estimate of these could be set at \$400-500 million. This filtration plant is at a total projected cost of \$2.9 billion. (\$2.2 + \$0.243 + \$0.450)

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. In addition the consumers that receive water before it reaches the plant are paying the cost of the treatment but do not receive the treated water. Watershed protection for the Croton has been all but abandoned as a result of the promised panacea of an end-of-the-line treatment plant.

An investigation into this should be brought by an independent fiscal agency because rates that pay for these costs come from the public. Calculating the increases in rates by DEP, a 'water & sewer' charge of \$100 in 1987 has risen to \$540.72 for 2008. Using membrane filtration, the modern treatment of choice, cost compares at \$1.80 per gallon vs. DAF/F at \$20.80 per gallon in construction costs.

Membrane Compared to Dissolved Air Flotation Filtration

Membrane filtration, using membranes 1mm thick, separates solids (sediment, algae, bacteria, protozoa, viruses, or colloids). Microfiltration (MF) membranes are capable of completely blocking sediment, algae, protozoa. Ultrafiltration (UF) membranes with pore sizes 10 times smaller than MF are additionally able to block small colloids and viruses. UF completely blocks Cryptosporidium. The EPA Guidance Manual lists the following advantages:

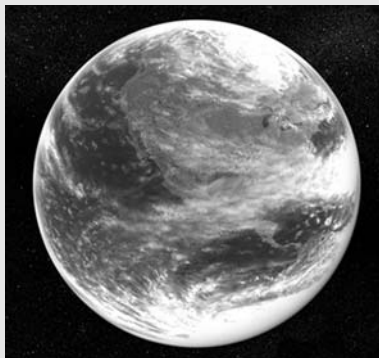
- No need for chemicals (coagulants, flocculants, disinfectants, pH adjustment);
 - Size-exclusion filtration as opposed to media depth filtration;
 - Good and constant quality of the treated water in terms of particle and microbial removal;
 - Process and plant compactness; and
 - Simple automation.
- Membrane filtration is modular and can easily be adjusted for increased or decreased sizing.

The DAF/F facility being built will occupy approximately eleven acres of former parkland, utilize at least five chemicals in the pre-treatment process, will store between 163,840 and 171,135.5 gallons of chemicals on site on a continuous basis. DEP has stated that the plant will use 32.3 megawatts of power. Subsequent to the filtration process, the effluent is treated with ultraviolet radiation (UV) as a further disinfectant in case some pathogens pass through the filter.

Based on the footprint for a 250-million-gallons per-day (mgd) membrane plant that was proposed for Portland, Oregon, it is estimated that the 290-mgd Croton membrane filtration plant would occupy slightly less than one-half acre of land or 20,750 square feet. The membrane facility could be built above ground and constructed anywhere.

This chemical treatment/filtration facility is of ongoing concern to CWCWC because of the lack of source water protection that goes along with it despite DEP promises to the contrary.

Among the many problems with siting the plant aside from the loss of open space, traffic volumes and rise in asthma rates, the HOLE (11 acres by 100 ft deep) is below the water table and now pumps one million gallons per day into the sewer system to keep the construction dry. This exceeded the DEP permit. Therefore DEP just issued themselves another to cover the violation. There is no plan for back-up electrical power in case of an emergency. DEP states that a "boil water" alert will be issued because raw water (untreated) would be used. In other words, with little source protection, we are likely to end up with worse water costing a lot more.



Route 22 Widening

A comprehensive regional planning effort is needed for Route 22 which threatens the East Branch and Bog Brook reservoirs. These reservoirs are already phosphorus impaired. Therefore any plans for Route 22 must identify the land use, land conservation, environmental and

transportation conditions, and water quality considerations in long-term goals for the area which includes New York, New Jersey and Connecticut. CWCWC'S efforts in this regard have been to reach out to Department of Transportation in New York and Connecticut as well as collaborate with Highlands Coalition and regulatory officials.

Other Actions

A word of thanks and appreciation for those organizations, towns, heroic individuals and officials who have reached out to CWCWC with environmental issues to assist and extend the network of protection of precious natural resources in the region.

Future Focus

Our new initiatives focus on water resources mapping, big-user drawdown reporting and privatization of water. It cannot be stressed enough how necessary it is to know whether our water source sufficiency will be viable for the future. Therefore the amount available as well as the drawdown must be carefully reported and monitored. Regulations for water have been very lax in enforcement and are eroding so this is another area into which we see a future effort.

We know that we face many challenges in the coming year within the era of global climate change and eroding environmental regulations. We fortify ourselves to meet these with the solid foundation laid by the intrepid leadership of our board, our member individuals and groups. We are fortunate to live in an area where water is high quality and abundant. With environmentally responsible fiscal decisionmaking as well as individual awareness and action, it is possible to preserve this irreplaceable natural resource.

COME ONE, COME ALL!

Join us at our CWCWC Annual Meeting in Purchase at
Friends Meeting House

Friday, December 14th, 2007

6 pm

for refreshments and socializing,

7 pm

board members presentations of year's activities,
Attorney Jim Bacon on legal issues and

8 pm

featured speaker Corey Bearak,
President of Queens Civic Congress addresses
concerns about the NYCDEP and water issues.

Ballots may be handed in by member groups
for election of CWCWC board members.

**Please RSVP to CWCWC office at 914-234-6470
or email crotonwshed@aol.com
by December 12th if you plan to attend.**

Directions:

If traveling South on 684, take exit 2 (Airport exit),
make a left turn at top of ramp,
cross over 684. * At traffic light,
turn right onto Rte. 120.

In approximately one mile, turn sharp left where 120 becomes Purchase Street.
Take first driveway on left - watch for sign indicating Purchase Friends Meeting
House.

Bear left in driveway to parking and meeting in rear of house.
If traveling North on 684, take exit 2, make right turn at top of ramp.
Follow directions from asterisk (*) above.

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 | \$ _____ |
| <input type="checkbox"/> Renewal | | <input type="checkbox"/> New Membership | |

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

Treasurer, CWCWC, Inc., PO Box 484, Bedford NY 10506



Our Water, Our Future
Croton Watershed Clean
Water Coalition, Inc.
9 Old Corner Road
Bedford, N.Y. 10506

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WHITE PLAINS, NY
PERMIT NO. 395

NOVEMBER DECEMBER 2007

North Salem's EAF Part 1 includes

- Of total 96.63 acres of project area in North Salem only 3 acres will be disturbed for installation of pump station, sewage low pressure force mains and residential sewer laterals and grinder pumps for 331 homes. (Sewer district including Southeast is 147.5 acres; any project that involves physical alteration of 10 acres or more triggers a **Type I Action**);
- There are bedrock outcroppings on project site with depth to bedrock of 0-12 feet;
- 19% of project will be built on slopes 15% steep or greater; 20% on 10-15% slope.
- Depth to water table 0-5 feet;
- Site not located over a primary, principal or sole source aquifer;
- 350 one-family houses;
- 6000 cubic yards of rock, earth, etc. will be removed from site;
- 12-24 months in construction duration;
- Blasting will occur in sewer main trenches to reach required depth of sewer, access house laterals and maintain frost cover (Attachment #1). 6000 cubic yards of rock removal;
- Sewage 210,000 gpd of surface liquid waste disposal;
- 1 ton/month solid waste disposal rate;
- 30 years anticipated site life;
- 15 gallons/minute well pumping capacity;
- Proposed action involves planning decision of a Site plan and Special use permit;
- Residential districts surround this area with exception of a small business district consisting of a restaurant, convenience store and garden center. The adjacent residential districts encompass horse farms and golf courses.

Attachment #1

- Project Description does not include repaving roads from curb to curb rather than patching. In Brewster it cost \$1 million. For families just making ends meet, it's necessary to avoid additional, unanticipated costs;
- Can it be written in that project cost overruns are absorbed by additional grants and not by ratepayers?

The draft of Part 2 of the EAF indicates **only small to moderate impacts** rather than potential **large impacts** will occur. For partial list of possible large impacts, [Click Here](#).

Issues in draft Part 2 of North Salem Peach Lake EAF of possible large impacts:

- Construction on slopes of 15% or greater;
- Construction on land where depth to water table is less than 3 feet;
- Construction on land where bedrock is generally within 3 feet of existing ground surface, rock outcroppings common throughout area requiring extensive blasting (no mention on how blasting and installation will impact on old water lines);
- No impact noted under Construction that will continue for more than 1 year or involve more than one phase or stage yet elsewhere notes construction project to take 2 years that may vary due to weather conditions and unforeseeable delays;
- No impact noted under Dredging more than 100 cubic yards of material from channel of a protected stream;
- Proposed action will affect surface or groundwater quality or quantity. Will exporting 210,000 gpd to Peach Brook draw down water table substantially when viewed in conjunction with nearby Southeast Durkin Water Company drawdown and future 85 condo-unit Salem Hunt development? If there would be a large impact, it would necessitate the Determination of Significance be rendered a **positive declaration** that necessitates a groundwater study in a Draft Environmental Impact Study (DEIS). At the least a full report in an expanded EAF should be provided;
- Under Impact on Growth and Character of Community or Neighborhood, a No answer is checked to 'Will Proposed Action affect the character of the existing community?' Could a potential **large growth inducing impact** be in play due to the effect of homes being allowed to expand? A high 3.5 persons per home is used in calculations whereas many cottages have only single residents. 20-year projections cite an increase of 466 persons. What will impacts be on an increase in schools and traffic and on larger use and export of water?
- 3 ½ miles is listed as length of project in North Salem;
- What size is the unmentioned impact of easements that must be procured?
- No is checked for species of plant or animal life that is identified as threatened or endangered in North Salem whereas a designated NYSDEC wetland (Cedar Swamp, Peach Brook) with plentiful biodiversity will be disturbed in Southeast.