

Insights

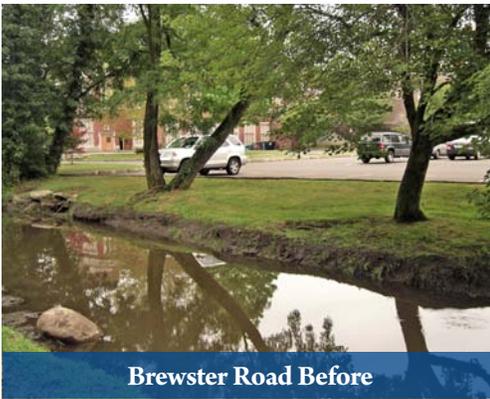
FACING CHALLENGES FINDING SOLUTIONS



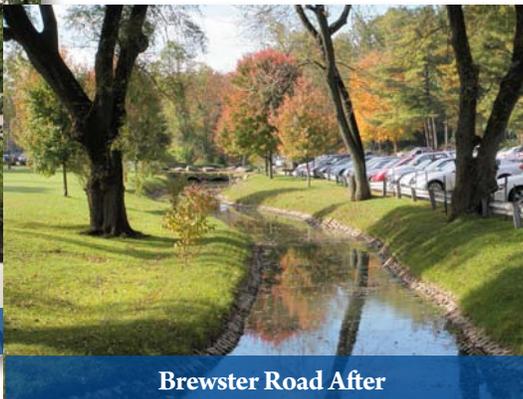
Green Storm Water Practices in Scarsdale, New York

Our story begins back in 2009, when D&B Engineers and Architects, P.C. was retained by the Village of Scarsdale to develop a comprehensive Storm Water Management Plan. The plan was designed to focus on a long term Capital Improvement Program to achieve water quality improvements and flood mitigation. Emerging as a high priority area contributing to critical flooding locations, the South Fox Meadow Drainage Basin was targeted for improvements, as it discharges directly to the Bronx River Basin. Accordingly, since 2009, the Village and D&B have been busy planning, designing and constructing a number of innovative and exciting storm water improvement projects “showcasing” a unique blend of green storm water practices and flood mitigation techniques. Two specific Green projects are highlighted below.

The Brewster Road Watercourse Stream Stabilization Project. The South Fox Meadow Brook stream bank, just west of Scarsdale High School, was one of the initial projects implemented as part of the Scarsdale Storm Water Management Program. During wet weather events, the velocity of the stream through this portion of the corridor was considerable and caused stream bank scouring and sediment deposition. D&B developed a plan that included stream de-silting to restore the volumetric carrying capacity of the stream channel and installed turf reinforcement mat (TRM) system to protect the stream banks from further erosion. The TRMs were complimented by articulated concrete block and stone rip rap that allowed grass to grow, giving the area a natural look. Using RUSLE model calculations, D&B estimated that sediment, the number one pollutant in the total stream and river segments, was reduced from 40 tons per year to less than 1 ton per year.



Brewster Road Before



Brewster Road After

The South Fox Meadow Brook Drainage Improvement Project. This project was an opportunity for the Village of Scarsdale to mitigate the frequent flooding that occurred along portions of the South Fox Meadow Brook stream bank. First, HEC-1 and HEC-RAS storm water modeling was completed to identify locations along the stream corridor that offered the greatest potential for reduction in storm water flows, as well as the most benefit for adjacent homes. Two sites were selected for dry-detention ponds. A 10-acre dry detention pond installed at George Field Park was designed to reduce peak runoff

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Summer 2013

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- Wastewater Management
- Water Supply Treatment and Distribution
- Recreational Facilities
- Roads and Storm Water Management
- Solid Waste Management & Recycling
- Construction Management
- Hazardous Waste Site and Brownfield Remediation
- Multimedia Environmental Compliance
- Phase I/II Site Assessments
- Environmental Assessments and Permitting
- Manufactured Gas Plant Site Remediation
- Cellular Communications Site Design
- Architectural and Building Improvements
- Hazardous Materials Assessments
- Health and Safety Services
- Quality Assurance/Quality Control

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flows by 70% during a 3.5 inch rainfall event and a second 3-acre dry detention pond installed at Cooper Green was designed to reduce peak runoff flows by over 50% under the same rainfall conditions.

In addition, a number of Green practices were implemented at these two sites to improve the quality of the water discharging to the stream, including:

- One of the largest engineered wetlands in Westchester County was located at George Field Park. A 40,000 square foot area was cleared of invasive plant species, regraded and planted with native species that naturally remove pollutants from the water, as well as create a significant local habitat.



Constructed Wetlands at George Field Park

- Over 500 feet of grassy swale was constructed at George Field Park to capture and treat runoff from Greendale Avenue.
- Almost 3,000 square feet of Flexi-Pave®, a 100% pervious surface manufactured from recycled tires, was installed as a walkway between the two sites, which allowed for the removal of all impervious surfaces at Cooper Green.
- Straddling the Flexi-Pave walkway at Cooper Green is also a 3,000 square foot rain garden, which is one of the largest of its kind in Westchester County. The rain garden was planted with flowering indigenous plant species and is designed to allow storm water to pass through the soil “filter” as a means of improving water quality, thereby reducing the potential for pollutants to impact the stream.

The Water Quality Improvement Project at the Public Library. This project is in the design phase and will include the installation of 1,800 square feet of rain garden to treat storm water runoff from the 18,000 square foot library roof, which drains to the South Fox Meadow Brook. This will allow 90% of the 500,000 gallons of runoff per year to infiltrate the ground thus reducing runoff volumes and improving water quality. The rain garden is designed to treat and remove 60% to 80% of the nitrogen, phosphorus, roof metals and sediment prior to

the water leaving the site. In addition, a rain cistern system will be installed to capture roof runoff and use the water to irrigate the rain garden, as well as the surrounding landscaping. The system will operate using a Rain Bird ET Manager®, which measures the amount of precipitation and automatically supplies water to the underground drip irrigation system. This type of system virtually eliminates the need to use potable water for irrigation and will save up to 40,000 gallons per year in water usage. A Trident Shark ADS® open channel flow meter will be fitted into the existing drainage manhole to measure the runoff flow in order to identify the reduction in runoff realized by the rain garden infiltration system. The flow meter will operate on a wireless modem and can be started automatically when rain is detected or via a cell phone.

The South Fox Meadow Brook Improvement Project and the **Harcourt Woods Improvement Project** were partially funded by the Westchester County Flood Mitigation Program. The **Library Rain Gardens** were partially funded through the Bronx River Watershed Initiative and the National Fish and Wildlife Foundation. All projects meet the objectives set forth in the Village-wide Comprehensive Storm Water Management Plan and the Bronx River Watershed Assessment and Management report and the design of the improvements are consistent with the New York State Department of Environmental Conservation (NYSDEC) Better Site Design and Storm Water Management Design Manual and incorporate “Green Infrastructure” principles where prudent.



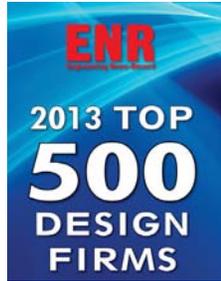
Flexi-Pave Walkway and Rain Gardens at Cooper Green Park

The projects highlighted above represent just a few of the innovative storm water management assignments being planned, designed and implemented by the D&B White Plains and Woodbury offices, and forward-thinking clients such as the Village of Scarsdale.

Collectively, these projects showcase D&B Engineers and Architects, P.C.'s commitment and competency in advancing and integrating Green principles and practices into engineering solutions for our clients. Please contact **Rob DeGiorgio, P.E., Vice President**, at **(914) 467-5300 ext. 16**, for more information. 

D&B Ranked by ENR as Top Design Firm

The Engineering News-Record (ENR) is a technical resource highlighting information and events concerning the engineering community and construction industry. Each year the ENR ranks the **Top 500 Design Firms**, on a worldwide basis, as well as the **Top 50 Design Firms** on a regional basis. Once again, D&B has qualified for both lists. In last year's Top 500 Design Firms' rankings, D&B was positioned at 340th place. This year, D&B has advanced to 298th place. In the regional Top 50 Design Firms, D&B's placement also advanced from 33rd to 27th place. D&B's performance shows steady growth and improvement even though, as the ENR points out, most design firms servicing the public sector have shown little or no growth since the start of the current recession. This demonstrates that even in a difficult economy, solving client problems with innovative and cost-effective solutions can lead to success and growth. This type of recognition is truly a tribute to all of our employees for their hard work, dedication and commitment to serving our client's needs. 



Disaster Recovery Funding Soon to be Available

New York State will soon administer funding made available by the Community Development Block Grant Disaster Recovery Program (CDBG-DR). This disaster recovery funding will be made available in the near future for the region; including Nassau and Suffolk counties in particular. Consistent with the program, Nassau and Suffolk County municipalities will be eligible to apply for funding in 3 major categories. These include Housing (rebuilding more resilient residences and energy systems); Economic Development (structural damage to businesses, relocation and general loss of business); and Infrastructure (including wastewater treatment facilities, transportation and State and local government facilities).

The U.S. Office of Housing and Urban Development (HUD) will administer a minimum of \$1.3 billion of a total of \$1.7 billion available for housing projects in New York State to the counties of Nassau, Suffolk and Rockland. The first round of funding will include \$250 million allocated to public infrastructure and facilities and local government support. Eligible infrastructure projects include water/wastewater treatment facilities; storm sewers; flood control mitigation projects; streets and sidewalks; and other public infrastructure. This program presents an opportunity to work with our existing clients to identify needs and assist in development of eligible plans and projects in Nassau and Suffolk Counties where the majority of funding will be allocated. For further information about the CDBG-DR program, please contact **Ann Fangmann** at afangmann@db-eng.com. 

D&B Provides Engineering Services to Glens Falls, New York for Upgrade of Sewage Sludge Incinerator

The City of Glens Falls utilizes a bubbling fluidized bed incinerator (FBI) to combust sewage sludge generated by its own wastewater treatment plant as well as sludge transported from off-site by private haulers. The incinerator was installed in 1986 and has been in continuous operation since, except for scheduled maintenance and repair outages. In order to meet the new air emissions limits and performance standards set by the United States Environmental Protection Agency in March 2011 in accordance with Section 129 of the Clean Air Act, the incinerator requires an upgrade. The new emission limits and standards are known as, "The Sewage Sludge Incinerator, Maximum Achievable Control Technology Rule (SSI – MACT Rule)". This particular MACT Rule applies to both existing and new incinerator units combusting sewage sludge. The City has entered into an agreement with the New York State Department of Environmental Conservation for the implementation of the upgrades. This agreement establishes milestone dates for the upgrades, completion of a Title V permit application, and for demonstrating full compliance with the SSI – MACT Rule.

D&B was retained by the City to provide professional engineering services to meet the SSI – MACT Rule by providing design services for the installation of new air preheater controls, analysis and recommendations for improvements to the existing venturi scrubber necessary to control acid gases, and a new continuous emissions monitoring system. D&B will also inspect the FBI to assess its condition and recommend any improvements required to enable it to continue to operate for an additional 5 and 10 year period. 

Cablevision Awards Environmental Services Contract to D&B

D&B has been awarded a contract to supply "on-call" environmental services to CSC Holdings, LLC. CSC Holdings is the parent company for the Cablevision Companies in the tri-state region. The term of the contract is for one year with the option for annual renewals. The services to be provided by D&B may include Phase I and Phase II environmental site assessments; environmental compliance audits; human health and environmental risk assessments; site investigation/feasibility studies; vapor intrusion studies and indoor air assessments; petroleum spill investigation; remediation and closure; asbestos and mold assessment and remediation; building construction assessments and underground injection well assessment and remediation. Congratulations to the Environmental Remediation and Multimedia Compliance Division on being selected for this assignment! 

D&B Welcomes New Employees



Paul M. Antonio, P.E. joins D&B with over 30 years experience in many fields of engineering. His diverse background includes wastewater treatment plant design, mechanical/electrical system design, plumbing system design, fire protection/suppression system design, HVAC system design, pumping and piping system design and drafting. Paul has a BS degree from New York Institute of Technology in Mechanical Engineering and a Masters Degree in Civil Engineering from The Cooper Union. Paul reports to D&B's Woodbury office and provides support to the Wastewater Division under Senior Vice President Dennis Koehler.



Thomas Robinson joins D&B as a Chief Civil Construction Inspector in the Wastewater Division. Tom has over 25 years experience as a Construction Inspector and has worked on many NYCDEP Capital Construction Projects. Tom most recently held the positions of Resident Engineer in charge of the Construction Management Team over-seeing the reconstruction of seven Ashokan Bridges in Ulster County and Chief Inspector in charge of oversight for the concrete re-facing of the Gilboa Dam Spillway Slabs and Concrete Steps. Tom works in D&B's Upstate CM Group under the direction of Vice President Chuck Wachsmuth.



Stephen M. Dudar, P.E. joins D&B as a Vice President in the Wastewater Division. Steve has over 30 years of experience as a Civil Engineer, including over 27 years experience working with the New York City Department of Environmental Protection (NYCDEP). Steve has held various management positions at the NYCDEP including Executive Construction Manager, Site Project Manager/Resident Manager, and Chief of the Bureau of Engineering, Design and Construction's (BEDC's) Engineering Standards Division. As Chief of Engineering Standards, Mr. Dudar was responsible for developing business practices and recording NYCDEP's capital delivery processes, development of all CM Standard Operating Procedures (SOPs) and was in charge of the effort to perform Quality Assurance/Quality Control site audits system-wide.



Abdelhamed A. Ali joins D&B as a Senior Inspector in the Wastewater Division reporting to Vice President John Schreck. Mr. Ali has over 30 years experience as a construction inspector for significant infrastructure construction projects in the region. He has worked on projects owned by the NYCDOT, NYSDOT, NYCDDC, NYCDEP and NYCTA. Mr. Ali is a member of the American Society of Civil Engineers (ASCE) and is Certified NICET Level IV.

D&B Supports NYSDEC's Development of Draft Audit Incentive Policy

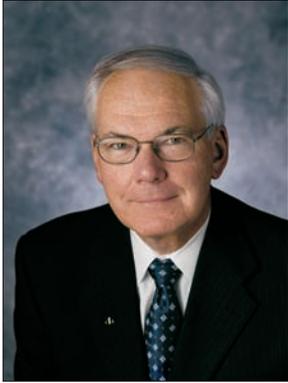
Over the course of the past 18 months, D&B has provided support to the NYSDEC with development of its draft environmental audit policy. The concept of developing a new audit policy at the state level was somewhat spurred on by a paper written by Rich Walka and Ellen DeOrsay, published in the journal, "Environmental Law in New York," as well as a presentation by Rich on the USEPA-Region 2 Self-policing/Audit Policy at the Business Council of New York (BCNYS), October 2011 Industry-Environment Conference. D&B was also asked to make an informational presentation on the subject to the NYSDEC Commissioner, Executive Staff and Regional Directors. Once the NYSDEC began development of a draft policy, the Department established a Stakeholders Group designed to provide a balanced, yet broad spectrum peer review of the policy as it developed. D&B was asked to participate in the Stakeholders Group, along with members of environmental groups and the regulated community, including business leaders from manufacturing, utilities and service sectors along with a BCNYS representative, local municipal governments, academia and various state governmental agencies.

Overall, the goal of the policy is to improve environmental compliance by offering incentives to the regulated community to conduct audits, identifying areas of non-compliance and disclose and correct violations in a timely fashion. In addition, the incentives are designed to encourage the regulated community to "go beyond compliance" by investing in Environmental Management Systems, as well as advancing Pollution Prevention initiatives that might not otherwise be required by typical regulatory requirements.

On February 22nd, Joseph Martens, Commissioner of the NYSDEC, announced the draft policy in a press release as an initiative to reward companies who perform environmental audits, report violations and prevent pollution. In response to a request by the Department for a reaction to the policy announcement, Rich remarked, "I applaud Commissioner Martens and his staff for advancing this important environmental policy. The policy provides the regulated community with an avenue to actually go beyond compliance by advancing Pollution Prevention and Environmental Management System initiatives. A job well done!" The public comment period for the draft policy has expired and the Department is currently responding to public comment.

For additional information on this draft policy please visit www.dec.ny.gov/press/89367.html or contact **Rich Walka** at rwalka@db-eng.com/516-364-9890 ext. 3006.  

Message From The President



Henry J. Chlupsa, P.E.
President

The firm received some sad news on July 21. The company's founder, and first CEO and President, Bill Cosulich, passed away at the age of 86. Bill was a great engineer and also a dedicated family man. We remember him as a great person and a pleasure to work with.

After graduating from Manhattan College and MIT, Bill worked for several engineering firms before starting his own firm in 1965. His first project was wastewater treatment improvements for the Great Neck Water Pollution Control District. His ingenuity and knowledge allowed the firm to prosper and grow. One of the interesting projects Bill was awarded and worked on was designing wastewater treatment plants for the Long Island Duck Farm Cooperative. His work allowed the duck farmers to stay in business and avoid polluting the water bodies they discharged to for many years.

When I arrived in 1968, Bill had secured a NYCDEP wastewater treatment plant expansion at Hunts Point in partnership with a larger NYC firm. During the next few years, our little firm grew from about 5 to 20, and further successful expansion continued throughout Bill's tenure. At Bill's retirement, the firm had 135 employees.

Bill set the tone for our culture which persists today. He believed in providing clients with honest and economical solutions to complex problems and put service above profit. Bill will best be remembered for his unselfish attitude that encouraged young people to climb the ladder of success under his wise mentoring.

We know that his wife and children will miss him greatly and we extend them our sincere condolences. May he rest in peace. 🇺🇸 🇺🇸



Mr. and Mrs. Bill Cosulich

Mayor Bloomberg Visits Gowanus Canal Team

Mayor Bloomberg, accompanied by New York City Department of Environmental Protection (NYCDEP) Commissioner Carter Strickland and Councilman James Genarro, recently toured the Gowanus Canal Pumping Station/Flushing Tunnel Complex in an effort to recognize the outstanding efforts of the NYCDEP and the entire design/construction management team supporting this important environmental project. Even though the facilities were damaged by Superstorm Sandy, the project remains on schedule to be completed by the early part of 2014. Once completed, the improvements to the Pump Station and Flushing Tunnel are designed to reduce combined sewer overflows to the Canal by 35%, as well as provide for more than two hundred million gallons of oxygen rich water from Buttermilk Channel to be pumped into the Gowanus Canal each day. The objective of the overall program is to improve the water quality of the canal for recreational purposes.

D&B served as design engineer for the project and also provided design services during construction. While the Gowanus Canal Flushing Tunnel complex was undergoing reconstruction and repair, as an interim measure, D&B developed an innovative Oxygen Transfer System designed to supply supersaturated oxygen-rich water to the Canal, resulting in significant improvement in water quality. Under the direction of Dennis Koehler, the D&B team consists of Garrett Byrnes, Roger Owens, Michele Mastrangelo and Joe Baader.



Mayor Bloomberg, Commissioner Strickland and Councilman Genarro take a moment for a photo-op with the Gowanus Canal Team.



Mayor Bloomberg congratulates workers on a job well-done. (D&B's own Dennis Koehler is pictured just beyond and to the left of the Mayor)

In summing up the overall importance of the project, Dennis Koehler, Senior Vice President of D&B and Project Director for the overall Gowanus Canal Pumping Station assignment commented, "... when construction of the Pumping Station and Flushing Tunnel are completed and the project fully implemented, we envision the potential for significant improvements to the water quality of the Canal over the long term." 🇺🇸 🇺🇸

D&B Presents Paper at NJWEA

The New Jersey Water Environment Association (NJWEA) will be celebrating its 100th anniversary in 2015. The organization is the oldest water association in New Jersey and their motto is "Preserving and Enhancing the Water Environment." The NJWEA held its 2013 Winter Technology Transfer Seminar at the Sheraton Hotel in Eatontown, NJ. One of the many education sessions at the seminar was presented by D&B Executive Vice President, Steve Fangmann, entitled "Biofilter Installations for the Control of Odorous Air from Sludge Drying and Composting". Steve "show-cased" two D&B clients as examples for his presentation which offered a comparison of design, construction and operation of biofilter installations for control of air emissions from sludge drying and sludge composting facilities. The clients were the Camden County Municipal Utilities Authority (CCMUA) and the Rockland County Solid Waste Management Authority (RCSWMA). Steve presented details of the operational features of both facilities to all in attendance.

For additional information regarding this presentation please contact **Steve Fangmann** at sfangmann@db-eng.com/516-364-9890 ext. 3005.  



CCMUA Biofilter Odor Abatement Facility



RCSWMA Composting Facility



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