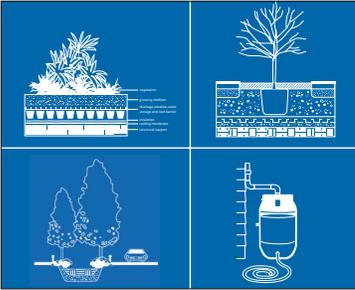


## Green Infrastructure – What a "Swale" Idea!



Combined Sewer Overflow (CSO) Tank in Brooklyn, and the Flushing and Alley Creek CSO Tanks in Queens—the Agency is also looking for green solutions to manage stormwater at the source.

That's why DEP recently awarded \$2.6 million in total to the five winners of the Flushing and Gowanus Green Infrastructure Grant Initiative. "Each of these five projects will capture and retain stormwater runoff, further improving New York Harbor's high water quality by reducing CSOs," said **Carter Strickland**, the Deputy Commissioner for Sustainability. "These targeted, small-scale programs will also provide DEP with the data the Agency needs to replicate these projects throughout the city in the future."

Capturing stormwater will reduce CSOs and improve the high water quality of the waters surrounding New York City, which are the cleanest they have been in over a cen-

(Continued on reverse side)

**D**EP's traditional grey infrastructure achieves the impossible every day. The Agency's thousands of miles of tunnels, water mains, aqueducts, wastewater treatment plants and other facilities deliver 1 billion gallons of water to nine million New Yorkers, safely treat 1.3 billion gallons of wastewater, and maintain the health of New York's waterways.

And even as DEP continues to make enormous investments in grey infrastructure—such as the subterranean Paerdegat Basin

## Special Guest *Commissioner's Corner*



**Amanda M. Burden, FAICP**, City Planning Commissioner is a guest commentator this week.

Just as DEP protects the City's environment and safeguards our water supply, City Planning is helping to make New York City even more sustainable as we plan – in collaboration with DEP and other agencies – for a population of 9.1 million residents by 2030.

For the last eight years, we have worked to set the conditions for sustainable, transit-oriented growth by channeling new development to transit-rich areas in order to make the most of our built infrastructure, minimize the need for automobile use and create a more pedestrian friendly environment. We have completed 101 rezonings – covering approximately one-fifth of the city – to promote transit-oriented development, preserve the character of our neighborhoods and catalyze economic opportunity throughout the city.

In those areas where we have encouraged growth and investment, interagency collaboration has been essential to helping ensure infrastructure needs are met. We are reducing the reliance on the automobile and creating the conditions for walkable, bikeable and inviting neighborhoods. We mandated secure indoor bike parking in new buildings, and our new initiative to expand "car-share" is under review. Car sharing provides an economical transportation option by enabling users to reserve cars as needed, rather than owning and maintaining a car.

We are also greening our streetscapes. New zoning requires street tree planting with new developments, which will result in about 10,000 additional street trees a year. And our zoning mandates planted front yards and landscaped parking lots. These initiatives improve the city's landscape and function as green infrastructure by reducing storm water runoff and cleaning the air.

One of our most significant current initiatives is the creation of New York City's new Comprehensive Waterfront Plan, Vision 2020. The plan will set forth a new long range vision for a 21st Century NYC waterfront and put forward strategies for increasing the use of the waterways, improving the ecological health of the waterfront and waterways, and adapting to future challenges such as sea level rise. Vision 2020 will expand our focus on what we call 'The Blue Network', the network of waterbodies that connect the Boroughs, and will present a framework for extending our experience beyond the edges of the land.

As DEP continues to make great strides in improving our Harbors, which are the cleanest they have been in 100 years, we are beginning to think of the water as the 'Sixth Borough'. Water should be planned for with the same attention and intensity as we do for land. NYC is built out to its edges but has this incredible "territory" on its shore. Vision 2020 will begin analyzing the potential that the water offers and will present untapped opportunities and appropriate locations for water use expansion.

Ensuring that New York City remains the world city of opportunities is our goal. By helping New York City grow as a sustainable city, with cleaner air and water, DCP partners with DEP to achieve **Mayor Bloomberg's** PlaNYC objectives for a greener and healthier future. Learn more at [www.nyc.gov/planning](http://www.nyc.gov/planning).

## Spotlight on Safety

### Outdoor Sun (UV) Exposure

Work performed outdoors may expose an employee to extremes of temperature, including exposure to the sun's radiation. Ultraviolet light are invisible rays that are part of the energy that comes from the sun. Employees who work outside are more at risk to skin exposures and continued exposure to the sun over time can cause damaged skin to become cancerous. The risk of skin cancer increases with the amount of time over the years spent without protection in the sun. It is important to note that work surfaces such as metal roofing, concrete, etc. can also reflect up to 50% of the sun's radiation, which intensifies exposure. Here are some tips to consider when

working outdoors in the sun.

- ✦ Wear lightweight, light-colored clothing and cover as much of the body as possible.
- ✦ Make sure your head is protected by a hat in the sun.
- ✦ Consider the use of sunscreens. If using sunscreens, choose one with a Sun Protection Factor (SPF) of at least 15 and one that is water-resistant, so that it can withstand sweat and humid conditions.
- ✦ Be aware that water, concrete, and sand reflect the sun and make it stronger.

Please refer to the Extreme Heat and Cold NYC DEP EHS Guidance (3/15/07) for further information .

At DEP, everyone is responsible for safety. If you or anyone on your team is concerned about your working conditions, it's okay to ask your supervisor or your bureau's EHS liaison how they can help. If you've still got questions, you can call the EHS Employee Concerns Hotline. It's DEP's responsibility to acknowledge and fix unsafe situations, procedures, and practices. With your help, we'll not only get the job done, we'll make it safer for ourselves, our coworkers, our families, and our city.

CALL (800) 897-9677 OR SEND A MESSAGE THROUGH PIPELINE. HELP IS ON THE WAY. 

## Focus on the Field



The May 2010 water main break in Boston demonstrated that a city can never stop improving, maintaining, and expanding its water delivery system. **Sham Hemraj**, an Associate Project Manager working with **Kate DeFazio**, Acting Chief of Distribution, and **Michael Farnan**, the Director of Distribution Operations, **Edward Coleman**, Assistant Commissioner of Operations, and Deputy Commissioner of Bureau of Water and Sewer Operations **Jim Roberts**, makes sure that Brooklyn has a safe, consistent supply of drinking water.

Sham has only been working with Distribution since August 2008, and already has had some very big accomplishments. He has coordinated the shutting down and re-pressurizing of large trunk water mains to allow for the construction of two projects that will help ensure critical supply capacity to Brooklyn. The Flushing Avenue Project, which was completed in April 2010, included the installation of a 48" and a 60" water

main beneath Flushing Ave, from Cypress Avenue to the Manhattan Bridge. He also worked on the reconstruction of Water Street, from Furman Street to Adams, where the Department installed a 36" trunk water main, and upgraded the local distribution mains as well. Sham also responds to water supply emergencies and plays an important role in isolating and controlling flows during large water main breaks. Most recently Sham responded and assisted on the 60" watermain break on Kings Highway.

DEP has already made serious investments in Brooklyn's water distribution, but there's still more to come, including the installation of a 48" trunk main around Atlantic Avenue and Flatbush Avenue, and a 36" trunk main in Coney Island. When City Water Tunnel No. 3 enters service, it will allow DEP to shut down City Water Tunnels Nos. 1 and 2 to inspect and repair their shafts. Sham is also looking forward to the Staten Island Siphon, a new water main that will be buried in the seabed between Brooklyn and Staten Island. This \$200 million project will ensure critical supply capacity to Staten Island, and will allow DEP to take the existing two back-up mains out of service.

In his spare time, Sham likes to play basketball and cricket and spend time with his kids.

## DEP: Then & Now

**Then:** BWT wastewater laboratories have been in existence since the initial opening of the wastewater treatment plants. There were labs at the Jamaica, Bowery Bay, Owls Head, Newtown Creek and Wards Island plants. All labs are certified by NYSDOH under the Environmental Laboratories Approved Program.



Lab Technician at the Wards Island plant - 1948

**Now:** The Bureau operates seven wastewater laboratories – three Process Control: one at Wards Island, Newtown Creek, and Oakwood Beach – three Special Projects: two at Wards Island and one at Lefrak – one Microbiology at our newly opened facility at Newtown Creek. These labs perform approximately 65,000 analyses per week on samples received from the wastewater treatment plants as well as industries operating within the City. Chemists and Microbiologists perform a variety of preliminary tests from the various samples received to ensure the City's 14 wastewater treatment plants are operating within State and Federal level.



Microbiologist at the Newtown Creek lab - March 2010

## Living Roofs?!

On Tuesday, June 29, eight DEP employees and four summer interns were given the opportunity to visit three green roofs in the Bronx, each using different technologies. Green roofs, also called eco-roofs or living roofs, are building rooftops that are partially or completely covered with plants. **Kate Shackford**, Executive Vice President of the Bronx Overall Economic Development Corporation (BOEDC), led this exciting tour, assisted by **Jessica Noon**, Environment and Open Space Planner at the Office of the Bronx Borough President. The Bronx County Building, with its 10,000 square foot extensive green roof, using hardy, irrigation-free, low-maintenance sedums, was the first stop on the tour. Although the Green Roofs on this tour aren't exactly like the modular green roof Manhattan College will install on New York Hospital, the benefit that they provide to the City is the same, and the photo above is a good way of visualizing what that new roof will look like. [Click here for more](#).



## Milestones

Congratulations to **Thomas Cerchiara**, BWS, and his wife on the birth of their son **Henry Richard Cerchiara** on July 4, 2010.

Congratulations to **Michael Reda**, BPS, and his wife **Marjorie** on the birth of their son **Michael Vincent Reda** on July 19, 2010.

(Green Infrastructure – What a "Swale" Idea! - continued)

Higher overall water quality will provide New Yorkers with more public space for recreation, attract visitors, improve the environment, and provide businesses with development opportunities. Just look at the Guest Commissioner's Corner written by City Planning Commissioner **Amanda Burden** for more information on how the City's water quality affects Vision 2020 and their vision for the City's future.

The five Grant awardees—Manhattan College, Columbia University, Regional Plan Association, Gowanus Canal Conservancy and Unisphere, Inc—will have one year to build their project and then monitor it for three years. Read the press release for more information on the projects, which include everything from the installation of a modular green roof on New York Hospital; the replacement of nearly 2,500 feet of impervious surface with a new 'greenstreets' program; the construction of bioretention

basins under the Long Island Expressway (one of which will be able to hold about 34,000 gallons during a 2-inch rainstorm); the installation of seven curbside swales; and the creation of treatment wetlands and rain gardens in Meadow Lake, Queens.

"I have always believed that the biggest application for green roofs will be systems that are modular, easy to install, and only cover portions of the roof," says **Dr. Scott Lowe**, Manhattan College's Associate Professor of Civil & Environmental Engineering. "It's more beneficial for the city to have 10,000 buildings with some green on the roof rather than 100 with extensive green roofs. With this project, the city has taken a major step in this direction, and the experience gained will prove invaluable."

So don't let anyone say differently: in NYC, grey and green makes a healthy blue.

## Event Calendar:

**Toastmasters** - Wednesday, July 21st 12:30-1:30 PM, Low Rise 4th Floor Conference Room. For more information, please [click here](#).

DEP's **NYC Water-On-the-Go fountains** will be out Tuesday through Sunday every week through Labor Day. For specific information, [click here](#).

If anyone is interested in volunteering to staff a Water-on-the-Go fountain, please contact Eva Lynch at 718-595-3487.

If you have any DEP related events coming up that you would like listed in the event calendar, please send them to us at [newsletter@dep.nyc.gov](#).

**We welcome your feedback! To submit an announcement or suggestion, please email us at: [newsletter@dep.nyc.gov](mailto:newsletter@dep.nyc.gov)**