

Cleaning up Charlotte's Waterways

Last month, Charlotte-Mecklenburg Storm Water Services finished a 2.3-acre detention pond at Revolution Park that will ease pollution and erosion in Glassy and Irwin Creeks near uptown. That cost of \$316.442 is paid for by the American Recovery and Reinvestment Act (ARRA) through the N.C. Clean Water State Revolving Fund.

The latest project, funded through the same fund, is even bigger: a \$1.37 million restoration and enhancement of Muddy Creek in east Charlotte. It's designed to restore 7,373 linear feet - nearly a mile and a half - of the creek and 6 acres of wetland in the McAlpine Creek watershed, one of Charlotte's largest.

But its benefits will be felt far downstream. As it stands, Muddy Creek and dozens of its counterparts in Charlotte are "just eroded gullies," says Daryl Hammock, Storm Water Services' water quality and environmental permitting manager.

"Decades and decades of paving and cutting down trees have been going on in Charlotte," Hammock says. "The quality of the water is poor because rain washes sediments, metals and bacteria off paved surfaces into the creeks ... and the quantity is maybe sixfold what it was before those impervious surfaces were put in."

Muddy Creek is a perfect example of what happens long term to a creek downstream from developed areas. The water that the ground can no longer absorb washes pollutants like phosphorus and fecal coliform bacteria into the creeks. Meanwhile, the increased volume of water scours away the creek bed and banks, choking the waterway with sediment that kills animals and plants. Muddy Creek flows into Campbell Creek, which flows into McAlpine Creek, which flows into the Catawba River.

Shamrock Environmental Corp. of Greensboro began a 365-day construction contract in July.

As for the Revolution Park detention pond, 8 Star Construction of Pineville finished the bulk of the work in December. The pond, which abuts the park's western end, is designed to catch most of the pollutants from Glassy Creek just before it flows into Irwin. Then the park property around it absorbs and filters the pollutants through a new irrigation system.

"It's very simple," says project manager Chad Nussman, "but effective."

Local Stimulus Impact

City of Charlotte ARRA At A Glance

Stimulus Projects

- Justice assistance grants for crime analysts, case technology and youth programs
- Housing rehabilitation
- · Lead based paint removal program
- Homelessness prevention
- Job training for adults
- Youth summer jobs
- · Watershed restoration at Muddy Creek/Campbell Creek
- Revolution Park water reuse: construction completed
- Wilora Lake Rehabilitation
- **Energy Efficiency and** Conservation Block Grant
- Diesel emissions grant to retrofit airport shuttle buses
- Computerized traffic signal improvements
- Shasta Lane sidewalk
- North Davidson Street Bus Garage renovation

of jobs created/retained:

691.64 (**50** police officers)

\$ awarded to date:

\$56.6 million

Adult workers trained:

Youth placed in work experience:

Youth participating in training: 81

of energy audits performed:

12 City facilities

of homes/units lead program:

17 homes completed & cleared 200 units tested

Tracking Federal Stimulus Dollars in Mecklenburg County

Tracking federal stimulus dollars -- figuring out how much is going where to help whom -- can be a confusing and complex task.

That's why this diagram, prepared by local planning consultant Carol Morris, is so helpful. Paid for by a Knight Foundation grant, the map outlines all the areas where American Reinvestment and Recovery Act (ARRA) funds are going as of November 19, 2009 to help low-wealth residents in Charlotte-Mecklenburg, how much is going to each and specifically what purpose the money serves.

The Foundation for the Carolinas used the grant money to hire Morris as part of a larger effort to connect affordable housing and health and human services organizations receiving ARRA funds. The foundation since July has held meetings of agency leaders, who realized they needed a map to orient themselves. Morris broke the funds for low-wealth residents into three general areas – Housing, Prevention and Support Services – then broke those down further into individual projects, color-coding them to make the projects easy to track.

For a more detailed look, go to www.fftc.org. Click "Stimulus Funding" under "What's New" on the right-hand side of the home page.

ARRA STIMULUS FUNDS TO ASSIST LOW-WEALTH RESIDENTS IN CHARLOTTE-MECKLENBURG:



Source: Carol Morris, Planning Consultant Foundation for the Carolinas Updated 11/19/09

Stimulus Dollars Support Charlotte's Environmental Commitment

Charlotte is on its way to becoming greener after City Council approved the City's Energy Strategy Plan in December. The City was required to submit a plan to become eligible to receive the first half of more than \$6.4 million dollars through the Energy Efficiency Block Grant program. Project ideas were based on input given at community meetings, discussions with business and community partners, and suggestions made by residents through a special web site. The projects are designed to reduce fossil fuel emissions, reduce energy consumption, create new green jobs and increase the use of renewable technologies. The projects are being reviewed by the Department of Energy. City officials expect to receive approval later this spring. Here's a breakdown of the proposals:

Residential Energy Efficiency Improvements

The Residential Energy Efficiency Improvement Program provides energy efficiency and weatherization improvements at an average of \$6,000 per unit for a total of 100 units. Priority will be given to homeowners in current revitalization areas

Commercial Building Retrofit Program

This project has two components; Commercial buildings and apartment complexes.

Commercial Building Component: Investing to create more energy efficient buildings in the area of the City with the oldest and least energy efficient structures to promote infill development in alignment with the City's growth strategy.

Apartment Complex Component: Promotes the reinvestment and revitalization of older and distressed rental apartment complexes. Possible expenditures for both the commercial and apartment complex components include equipment and lighting upgrades.

Neighborhood Energy Challenge

Encourages neighborhood-level involvement in planning and implementing energy solutions. Any neighborhood in Charlotte can apply; five will be selected based on factors such as community participation, plan impacts, and geographic distribution. Selected neighborhoods will be eligible to receive grants to implement their energy action plan. Baseline data will be made available City-wide so that all neighborhoods can use it to reduce their energy consumption.

Electric Vehicles and Charging Stations

The City will partner with Charlotte Center City Partners for a portion of this project, which includes the incremental purchase cost of 3-5 electric vehicles (replacement) for use by City staff and the installation of up to 10 electric vehicle charging stations along transit corridors, in the Uptown area, and other high employment centers. All charging stations will be publicly accessible and marked with signage to encourage use and access.

I-485 Park & Ride Energy Efficient Lighting Pilot

The City will pilot Light Emitting Diode (LED) and/or other lighting technologies for interior and exterior lighting at the CATS I-485 Parking Facility. Since parking garage lights are on 24 hours a day, seven days a week, energy costs can be significant. This project will provide data for evaluation of future use of energy efficient lights.

Center City On-Street Recycling

The City will partner with Charlotte Center City Partners for the Center City On-Street Recycling Program to motivate and prompt individuals to practice waste separation by installing 15 recycling receptacles (alongside current waste receptacles) within the public right of way. The program targets pedestrians who live, work, and visit Uptown Charlotte.

(Continued on back)

Environmental Commitment

...continued from inside:

Photovoltaic System – Charlotte-Mecklenburg Government Center (CMGC) Parking Deck

The CMGC Parking Deck Photovoltaic System Project is a demonstration project that will generate electricity to be used in the parking deck and potentially sold back to the electricity grid. The project includes the installation of a 9.2 Kilowatt solar array mounted on a single steel pole. The CMGC site was selected due to its high visibility, educational opportunities, and available solar window. The project includes \$15,000 for an education kiosk that will be connected to the photovoltaic system to monitor energy production and savings.

Bicycle Master Plan Project #1 – Wendover/Beal Intersection

The Wendover Road/Beal Street intersection improvements will enable cyclists to cross Wendover Road at the signalized intersection. In addition, bicycle-friendly ramps, signal call-buttons and bicycle markings will be implemented as part of this project.

Complete Vehicular Way finding and Parking/Variable Messaging Signage

The Dynamic Vehicle Way finding and Parking Guidance Signage project will reduce vehicle miles traveled by providing parking, event and travel information on Variable Messaging Signage with "real time" parking availability at 15 decks. Energy estimates include a reduction of 75,000 gallons of fuel annually, based on average travel distances to venues, activities and other trip purposes to Charlotte's Center City.

Charlotte Mecklenburg Utilities Building (Brookshire Blvd) – Energy Improvements

Energy improvements include: upgrading chiller, boiler, motors, and light fixtures, installing timers and occupancy sensors for equipment and lighting in low-traffic areas of the building.

Old City Hall - Energy Improvements

Energy conservation measures include: Installation of new high efficiency cooling units, lighting replacements throughout the building, and installation of occupancy sensors in restrooms, break rooms, conference rooms, and kitchen areas.

CMPD – New Providence Station Geothermal Heating and Cooling System

A geothermal heating and cooling system will be designed and installed at the new Providence Police Station on Wendover Road. The use of geothermal for this building is a demonstration project and is in support of the recently adopted Sustainable Facilities Policy. Since earth temperature remains relatively constant throughout the year, these systems operate more efficiently than air-source heat pumps and generally without the use of resistance heat.

Energy Efficient Lighting Replacement - Multiple City Facilities

The City will upgrade obsolete, inefficient building lighting with more efficient fixtures at multiple locations including 20 fire stations, equipment management facilities on Sweden Road and Louise Avenue, and the Spratt Street Facility. T8 and T5 fluorescent lighting uses 50% - 60% less electricity than conventional lighting.

Energy Efficient Computing

The project includes testing, validating, and implementing the use of virtualized PCs by City staff to replace 500 desktop PCs with a smaller piece of thin client hardware. This technology uses up to 80% less energy than a standard PC workstation and gives users remote access to servers. These reductions in electricity consumption are equivalent to turning off 800 light bulbs that are burning 24 hours a day, or approximately \$65,700 per year.

Solar Thermal Hot Water at CFD Stations #1, #10, Training Academy

Solar thermal hot water systems will be installed at Fire Stations #1, #10 and the Police/Fire Training Academy in order to reduce natural gas consumption at these facilities.

Charlotte Housing Authority – Parktowne Terrace Retrofit

The project will include an energy efficiency retrofit of 163 efficiency and one-bedroom units, all currently rented to seniors and disabled adults living at or below 30% of the area median income. Parktowne Terrace has been registered as a LEED project and will be pursing LEED-Silver certification as a part of the energy retrofit.

Energy and Sustainability Manager

The position would provide the dedicated leadership needed to oversee and coordinate the City's Energy Efficiency and Conservation Block Grant initiatives to maximize effectiveness of block grant programs and activities. The Energy and Sustainability Manager would be the primary City contact on the projects and other city environmental matters.

Outreach and Education Campaign

The City of Charlotte in collaboration with citizens, non-profit organizations and the private sector, will work to increase the awareness and environmental efficiency impact of the projects funded by the Energy Efficiency Block Grant.

STIMULATING TIMES EDITORIAL BOARD

Editor Kim A. McMillan, Corporate Communications Director

Writers Catherine Bonfiglio, Greg Lacour

Layout Kelly Smith

Contributors Justin Amos, Carol Jennings

Published by City of Charlotte Corporate Communications to inform citizens about Stimulus funds benefiting Charlotte. For more information visit http://newsroom.charmeck.org.