

UPGROUND RESERVOIR WILL ENSURE ADEQUATE WATER SUPPLY FOR FUTURE

The decision to construct upground reservoirs to meet the water supply needs of the central Ohio area was based on the recommendations of a 10-year study of water supply planning analysis which produced the Water Beyond 2000 Feasibility Study. A series of three reservoirs are planned for construction on 2,500 acres of land owned by the City of Columbus in northwest Delaware County. The reservoirs will be designed to provide the water supply required to meet the long-range needs for the communities served by the Columbus Department of Public Utilities and the Del-Co Water Company. In order to maintain responsible water use habits in the central Ohio service area, the City of Columbus plans to continue promoting ongoing conservation efforts.

What is an upground reservoir?

An upground reservoir is a man-made water basin that is separate from the stream or water source. This type of reservoir is filled with water periodically withdrawn from a river or stream, and pumped to the reservoir during periods of high flow. Conversely, an on-stream reservoir consists of a dam constructed within the stream bed. A length of the stream is converted into the reservoir.



Rendering of initial reservoir proposed for construction in Delaware County. Photo courtesy of B B C & M Engineering, Inc.

Why are upground reservoirs needed?

The decision to meet the water supply needs of the central Ohio area by constructing upground reservoirs was based on recommendations of a 10-year study called the *Water Beyond 2000 Feasibility Study*. Expansion of the well field south of Columbus is progressing and will add an additional 15 million gallons per day (MGD). However, more must be done to provide enough water. The rate of water use was 148 MGD in 2005, although the system is rated for a safe yield of only 130 MGD. With continued growth projected in central Ohio, the expected demand for water soon will be 185 MGD.

Once complete, the three upground reservoirs will provide additional supply in excess of 53 MGD for City of Columbus and Del-Co Water Company consumers. Specifically, the project will supply Columbus with an additional 45 MGD and Del-Co with 8 MGD.

How much will the project cost?

<u>Initial Projects</u>	<u>Estimated Costs</u>
Reservoir Site R-2, Raw Water Pump Station, & Phase 1 Fill/Release Pipeline:	\$121,800,000
<u>Future Projects</u>	
Reservoir Sites R-1 & R-3 Phases 2 & 3 Pipeline:	<u>\$141,900,000</u>
Total estimated costs:	\$263,700,000

Where will the reservoirs, pump station/inflatable weir, and pipelines be located?

The reservoirs will be located in Thompson Township in northwest Delaware County and a small portion of Union County. The pump station location is in close proximity to the proposed reservoir sites and will require placement of an inflatable weir (as opposed to a permanent on-stream dam) in the Scioto River. The weir would be inflated only during periods when adequate stream flow exists for pumping water to the reservoirs and will be deflated when pumps are not in use. A network of pipelines and control valves will be built in phases. Phase 1, located along Hoskins and Mooney Roads, is needed for the raw water pump station to fill any of the three proposed reservoirs and will initially serve to return water to the Scioto River during drought periods. Future phases, routed parallel to SR 257, will convey water stored in the reservoirs to Del-Co when needed and to a release point further downstream.

What is the anticipated schedule for the final design and construction of the reservoirs?

Construction of the first reservoir is tentatively planned to begin in March 2008, with pump station and Phase 1 pipeline construction beginning shortly thereafter. Pumping to fill the first reservoir is planned to begin in September of 2010.

For more information on the Upground Reservoir Project, visit: <http://www.columbusupgroundreservoirs.com/>



Environmental Stewardship in the 21st Century

The City of Columbus has launched an environmental initiative known as Get Green Columbus. This visionary approach creates a framework for pursuing responsible environmental stewardship. It draws together city agencies, community leaders, residents, businesses and developers committed to achieving an environmentally sustainable city that meets today's needs without compromising the ability of future generations to meet their needs.

The Department of Public Utilities is striving to do its part to create the highest quality of life possible for residents now and in the future and to serve as a role model for the private sector and the public at large. We are collaborating with members of our community to achieve environmental gains with lasting value. Increasing awareness, providing educational opportunities and raising environmental literacy are essential components the department uses to engage participation from residents in making daily decisions regarding water quality.

Improving Water Quality

Partnering with local watershed groups, the Department of Public Utilities is promoting stewardship of the source of our drinking water -- our streams and rivers. Some of these partnerships are listed below. Learn how you can get involved in activities taking place in your area through the Department of Public Utilities website at:

<http://utilities.columbus.gov>.

Supporting Local Watershed Groups

Rain Barrel Project

Two local watershed groups, Friends of the Lower Olentangy Watershed and Friends of Big Walnut Creek, have contracted with the Department of Public Utilities for public education projects on the use of rain barrels. When placed under a downspout, a rain barrel collects and stores rainwater for use during dry periods. Using rain water in the garden saves money and reduces the impact of stormwater runoff.



Storm Water Innovations

Rain Garden Workshops

Rain gardens are often bowl-shaped areas planted with perennial native plants that thrive in central Ohio soil and weather conditions. Planted in an area where stormwater is diverted from rooftops, driveways, streets and parking lots, the gardens capture and filter stormwater, limiting the amount of runoff and pollution entering waterways. The Department of Public Utilities is partnering with Franklin Soil and Water Conservation District and Friends of Big Walnut Creek in promoting public education on developing rain gardens.



Pilot Prairie Project

In partnership with the Mid-Ohio Regional Planning Commission's Greenways Program, the Department of Public Utilities has converted half an acre of its land to native prairie. The goal of the project is to create landscape plots that enhance the diversity of plant and animal life, decrease water and air pollution, reduce maintenance costs and inform residents about the benefits of this natural landscape technique.

Green Fleet

The Department of Public Utilities is participating in a citywide pilot project to explore the use of diesel fuel alternatives that reduce dependence on petroleum and emit cleaner exhaust. During a trial phase, a cold weather blend of 20 percent biodiesel fuel derived from soy and 80 percent petroleum successfully powered one semitractor and three large off-road loaders at the city's Compost Facility.

For more information on Get Green Columbus, visit www.getgreencolumbus.org or call 311 or 645-3111.