

Another Conservation Success Story...

Gwinnett County, Georgia

November 2006

Watershed Dam Rehabilitated in Gwinnett County

A multiyear cooperative effort between the Natural Resources Conservation Service (NRCS), Gwinnett County, Georgia Soil and Water Conservation Commission (GSWCC), Upper Ocmulgee RC&D Council, and Gwinnet Soil and Water Conservation District has resulted in the upgrade of Yellow River Dam Number 17 (Y-17).

This dam was originally constructed in 1967 when Gwinnett was still predominantly rural. As such, it was designed to protect flooding of farmland but because of urbanization, now protects homes and major infrastructure.

This change in land use precipitated the need to evaluate this structure to determine if it should be removed or upgraded to meet more stringent criteria.

Designers and planners involved in this process evaluated many alternatives including some as drastic as removal of the dam and purchasing the homes in the downstream failure zone.

A unique aspect of this dam is its location; Y-17 is located within Collins Hill Park and provides all residents the benefits of seclusion and respite in a hustle and bustle world.

Through both the desires of local residents and economic analysis, it was determined the best alternative was to upgrade the structure.

Approximately \$1.7 million dollars, six months of construction, and several years of planning have yielded a safer dam.

Y-17 is now armored with a roller compacted concrete overlay to protect the dam and its downstream residents from a sudden deluge of water caused by a failure.

Except for the visible armoring on the top of the dam, residents might never know this change has taken place; because the lake is in a park setting, the decision was made to cover the back steps with earth fill and vegetation. This dam is the first of its kind in Georgia.

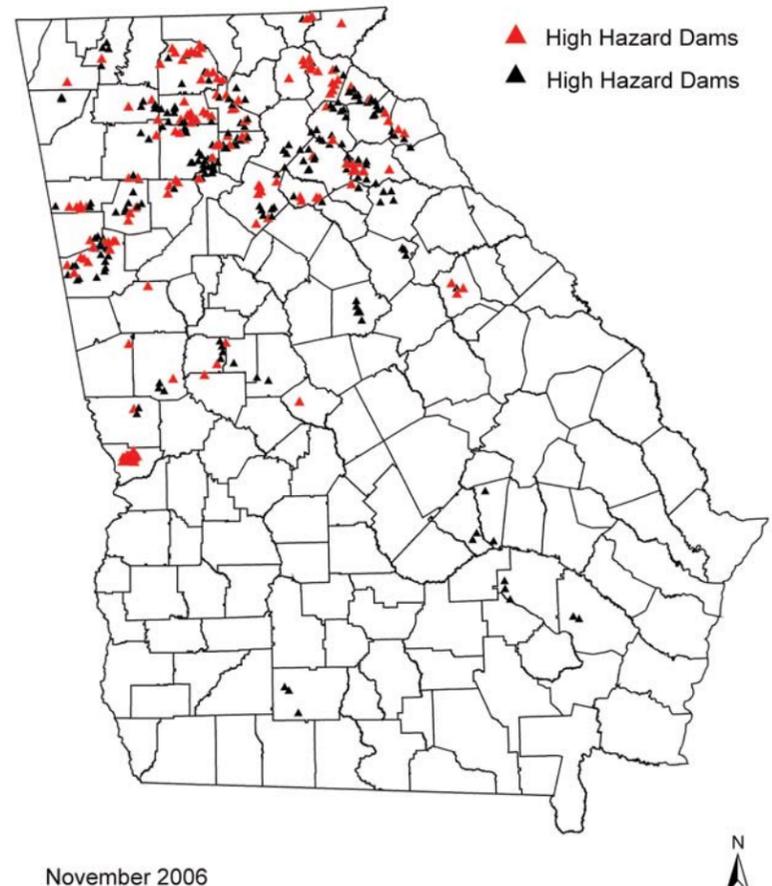
There are ongoing cooperative efforts between NRCS and Gwinnett County to complete the rehabilitation of two additional dams in 2006.

Many are benefiting from the tireless efforts in cooperation and coordination spearheaded by Jimmy Bramblett, NRCS, Water Resources Program Leader and Sam Fleming, Gwinnett County, Department of Public Utilities.

NRCS Assisted Dams



Hazard Classification



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Safe Dam Program

Since 1953, 357 project dams have been built in Georgia. The Georgia Safe Dams Program has categorized 150 of these as "High Hazard," indicating a potential loss of life if the dam were to fail. Preliminary investigations indicate that some \$120 million will be needed to upgrade these structures and ensure compliance with current dam safety legislation. NRCS project dams annually provide \$19 million of benefits to local communities by providing flood protection, water based recreation, municipal water supply, and other water uses.

One of the major issues involved with aging dams is the safety and health of an estimated 15,000 people downstream from the dams. Many dams were originally built in rural areas to protect agricultural lands. Homes, businesses, and roads have now been built downstream, and increased damages would occur if they were to fail. Congress passed legislation in November 2000 that authorized NRCS to provide financial and technical assistance for rehabilitation of dams that were originally constructed under NRCS water resources programs.



Y-17 Dam under construction. This new dam is now armored with a roller compacted concrete overlay to protect the dam and its downstream residents from a sudden deluge of water caused by failure.



The finished dam. Except for the visible armoring on the top of the dam, residents might never know the change has taken place.

Upper Ocmulgee River RC&D
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Gwinnett County Soil And Water Conservation District