

**STATE OF GEORGIA
REVISED TMDL IMPLEMENTATION PLAN FOR
THE ALBANY BY-PASS POND**

FISH CONSUMPTION GUIDELINES DUE TO DDD/DDE

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TMDL Implementation Plans are platforms for establishing a course of actions to restore the quality of impaired water bodies in a watershed. They are intended as a continuing process that may be revised as new conditions and information warrant. Procedures will be developed to track and evaluate the implementation of the management practices and activities identified in the plans. Once restored, appropriate management practices and activities will be continued to maintain the water bodies.

INTRODUCTION

The Albany By-Pass Pond covers approximately 20 acres in the Flint River Basin and is located within the city of Albany in Dougherty County. The pond is on the 2004 303(d) list for Fish Consumption Guidelines (FCG) due to DDD/DDE contamination. The *2004 Update Guidelines for Eating Fish from Georgia Waters* (Georgia Department of Natural Resources) recommends limiting consumption of Largemouth Bass and Brown Bullhead to one meal per week.

DISCUSSION OF POLLUTANT

DDD/DDE contaminants are chemical breakdown products of the chlorinated insecticide dichlorodiphenyltrichloroethane (DDT). DDT was first synthesized in 1874, discovered as an insecticide in 1939 and used extensively in the United States until production discontinued in 1969. DDT was banned for use in the United States in 1972, except in the case of a public health emergency.

Residues of DDD/DDE tend to be persistent and break down slowly in the environment. DDD/DDE is lipophilic, it accumulates in the fatty tissue of fish and wildlife. When tested the levels of DDD/DDE in air and water samples are very low. However, concentrations of these contaminants in the tissues of aquatic organisms may increase at each level of the food chain. Top predators in a food chain, such as largemouth bass may have concentrations of these chemicals in their tissues that may be a millions times higher than the concentrations in the water.

POLLUTANT SOURCES

The source of DDD/DDE in the Albany By-Pass Pond watershed is unknown. DDD/DDE are toxic priority pollutants and their use and discharge is not permitted. A potential DDD/DDE source in this segment has been attributed to contamination from urban runoff from metropolitan Albany and nonpoint source pollution. Other possible sources include movement of contaminated bedload sediment, soil erosion, air deposition and other nonpoint source discharges. It is believed that the pollutants measured in 1993 were legacy and additional sources no longer exist.

The use of DDT was banned by the USEPA in December 1972 with usage peaking in 1959. Since the ban the use of DDT in the United States has been effectively discontinued. Levels of DDD/DDE in foods have been decreasing and are expected to continue to decrease.

PLAN FOR TMDL IMPLEMENTATION/ MONITORING/ EDUCATION

Through the NPDES reasonable potential procedures, the Georgia Environmental Protection Division will determine whether DDD/DDE monitoring requirements or effluent limitations are necessary for any future permitted dischargers to the Albany By-Pass Pond watershed.

The Georgia Department of Natural Resources will continue a progressive program to evaluate problem areas and to protect public health by giving people the information they need to make decisions about eating fish from Georgia waters. The DNR fish testing program is ongoing. Testing on additional lakes and rivers is balanced with retesting of waters where change may be occurring. Contaminant levels in fish change very slowly, and sampling the same species of fish from the same locations over time will allow the DNR to document changes and trends in contaminant levels. Information on contaminant levels is updated yearly and published in the "Guidelines for Eating Fish from Georgia Waters."

REFERENCES

GAEPD, 2003. Flint River Basin, The Albany By-Pass Pond (DDD and DDE in Fish Tissue) TMDL. January 2003

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