



## Turtle River Dioxin Contamination September 15, 1996

### Introduction

In March 1996, the Glynn County Health Department (GCHD) was awarded a grant by the National Association of County and City Health Officials (NACCHO) and the Agency for Toxic Substances Disease Registry (ATSDR) for an Environmental Health Education Needs Assessment Project. The grant award was in response to a Request for Proposal (RFP) issued by ATSDR for a community involvement project to identify the community's environmental health education needs about dioxin in the Turtle River and its tributaries in Glynn County, and to generate an Action Plan based on needs assessment findings.

### Site Description and History

Located in Glynn County is the Georgia-Pacific Brunswick Operations Paper Mill. Situated on the Turtle River, the main artery of the fragile tidal marsh and estuary system, the Georgia-Pacific Mill operates 24 hours per day, 365 days per year, manufacturing 770,000 tons of bleached pulp and paperboard annually. The mill has long been suspected by residents of contributing pollutants to Glynn County water, air, soil, and inducing and compounding acute and chronic health conditions and diseases.

In the early 1970's, a total ban on harvesting shellfish was imposed for all of Glynn County's waterways due to high bacteria counts; however, concern about pollution only slightly impacted other fishing activities. Only a small percentage of residents have expressed concern about hazardous waste and exposure. While efforts have been made to discover the level of concern in the community, the Georgia Division of Public Health (GDPH) has encountered difficulty engaging the public in these issues.

In March 1992, the Georgia Environmental Protection Division (GEPD) closed one mile of the Turtle River and issued a seafood consumption advisory after a series of fish sample results revealed mercury PCB, and dioxin, some of which exceeded the U.S. Food and Drug Administration (FDA) action levels.

The Georgia-Pacific Paper Mill continues to operate and has invested over \$200 million dollars in its

environmental programs since 1988. Residents' interest in and concern about environmental issues have increased dramatically, and the Georgia-Pacific Mill will continue to focus on public concern over ecological and environmental health issues.

### Gathering Community Concerns

The Turtle River Contamination Project was an environmental health education needs assessment for residents in Glynn County who live near and consume fish from the designated seafood consumption advisory area of the Turtle River in Glynn County, Georgia. Competed surveys were collected from persons who attended a public meeting in August 1996 in an effort to quantify the community's level of concern, and community education needs about dioxin, and education methods which would be most effective in addressing those needs.

### Results

The results reveal that there is a high level of concern, and community education about dioxin was requested by survey respondents

### Recommendations

The education needs expressed by residents in the study justify the implementation of a community education program. Implementation of an environmental health education program focusing on dioxin contamination of seafood in the Turtle River and its tributaries in Glynn County is recommended. A Community Advisory Group (CAG) should be formed to involve representatives of the target population in addressing the community's health education needs.

### Conclusion

A health consultation provided by ATSDR concluded that the levels of dioxin detected in fish tissue analyses from the Turtle River are not likely to result in adverse health effects in humans from fish consumption. The NACCHO Project will propose an action plan that addresses concerns of surrounding residents by involving the public in the development and implementation of a community education program addressing dioxin contamination.