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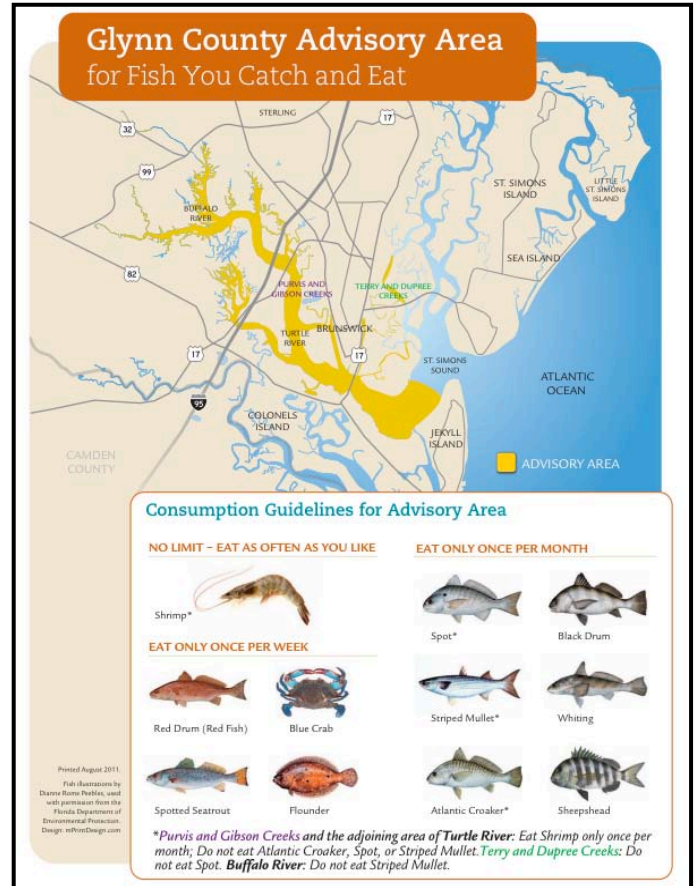
### Fish Consumption at the LCP Chemicals Superfund Site

Fish consumption advisories are put in place to warn the public about risks associated with eating fish caught in contaminated areas. Since 1993, warnings have been in place about eating fish from Purvis Creek and the Turtle River. However, the fish consumption advisories described for the LCP Chemicals Superfund Site are not enough to protect people. The Proposed Plan uses outdated information and does not give an accurate description of the amount of fish caught and consumed by local African-Americans.

Fish consumption is a major way that people take in toxic chemicals from the LCP site. Therefore, EPA must have accurate numbers for fish consumption by the local fishing community members so that the cleanup will reduce the fish contamination to safer levels. The information in the Human Health Risk Assessment and the Proposed Plan does not use the right estimates for how much fish is caught and eaten by the community. EPA must fully revise the Human Health Risk Assessment and then the Proposed Plan in order to protect the health of the local community.

### The Problems

At the LCP site, the fish consumption advisories proposed by the EPA do not protect human health, nor do they accurately reflect the makeup of the local population. The advisories are based upon a 1999 study conducted by the Glynn County Health Department (GCHD). The study compared 211 residents who may have been exposed to mercury through wild game and seafood consumption from the Turtle River (target group participants) to 105 residents who reported they had not consumed seafood or wild game from that area (comparison group participants). Overall, 101 of the people in the study identified themselves as either recreational, commercial, or people who rely on fish as their food (subsistence fishers); 96% of these individuals reported themselves as



**Glynn County Fish Consumption Guidelines**  
Source: marex.uga.edu

recreational fishers, 3% identified themselves as commercial fishers, and only 1% identified themselves as subsistence fishers (ATSDR 2014). However, the African-American community is underrepresented in the study. African-Americans made up only 4% of the people surveyed, yet according the 2010 U.S. census, African-Americans make up 26% of the Glynn County population, and nearly 40% of the population within four miles of the LCP site (ATSDR 2014).

Other shortcomings of the 1999 study include the possibility that participants purposely ate less fish following the dietary recall survey, leading to inaccurate urine mercury results (ATSDR 2014). Furthermore, a study of people who live along the nearby



**Sapelo Island Fisherman**

Source: David Goldman, *AP*

Savannah River found that, on average, African-Americans catch and eat more fish meals per month than whites, eat slightly larger portions of fish than whites, and therefore eat higher amounts overall of fish per month than whites (Burger et al, 1999). It makes sense to assume that African-Americans living in Brunswick have similar eating habits to those living along the Savannah River, and so the report by ATSDR states, “The results of the Brunswick fish study should not be applied to African-Americans in the

Brunswick area [ . . . ]” (ATSDR 2014, pp.8).

Lastly, sensitive groups including children, women of childbearing age, and the elderly reside within a one-mile radius of the LCP site. These groups are particularly sensitive to toxic contaminants; for example, exposure to contaminants can affect the development of both children and babies. Approximately 4,202 people live within a one mile radius of the LCP site; among these, nearly 451 are children age 6 or younger, 519 are adults who are at least 65 years old, and 827 are women of childbearing age (U.S. Census Bureau 2011). In the Glynn County Health Department study, although 37% of the target group participants were 60 or older, only 6% of surveyed participants were under the age of 10 years old (1999).

In light of the major problems with the fish consumption estimates for the LCP site and the data that the advisories are based on, EPA must use better information to set cleanup levels to prevent future human health problems. Also, it is essential that stricter and more accurate fish consumption advisories are put into place. It will be many years until local fish and shellfish are clean enough for humans to eat, so all advisories should as protective of human health as possible. Below we describe the ways in which new fish consumption advisories should be implemented.

## The Solution

The fish consumption advisories in the LCP Chemicals Proposed Plan need to be based on data from a more accurate source. Information on fishing should be collected from a sample of residents that accurately represents the population. The survey should reflect that African-Americans make up 26% of the Glynn County population (ATSDR 2014). This type of data collection could be done through an environmental justice analysis. An environmental justice analysis recognizes that some populations experience higher levels of risk than others. According to Executive Order 12898, an environmental justice analysis “directs federal agencies to identify and address disproportionately high adverse human health or environmental effects on minority and low-income populations that may result from their programs, policies, or activities” (USEPA 2014b, pp.1). An environmental justice analysis would account for the higher levels of risk experienced by residents who practice subsistence fishing, and therefore help to create guidance for more protective fish consumption advisories.

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