FAQ's Associated with the Clear Creek Fish Consumption Advisory

Prepared by the Seafood and Aquatic Life Group
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Q: What recommendation has the Texas Department of State Health Services (DSHS) made to protect human health?

A: Specific consumption advice has been recommended for Clear Creek upstream and west of Clear Lake. DSHS recommends that persons should not consume any species of fish from these waters. Advisory 35 (ADV-35) issued on July 8, 2008 for Galveston Bay including Chocolate Bay, East Bay, Trinity Bay and West Bay and contiguous waters is still in effect and applies to Clear Lake. ADV-35 recommends an adult consumption limit of no more than one meal, not to exceed 8 ounces each month of all catfish species and spotted seatrout. Women who are nursing, pregnant, or who may become pregnant and children should not consume catfish or spotted seatrout from these waters.

Q: What species of fish and crabs were tested from Clear Creek?

A: Alligator gar, blue catfish, channel catfish, common carp, flathead catfish, longnose gar, and smallmouth buffalo.

Q: What are the chemical contaminants of concern in Clear Creek?

A: Polychlorinated Biphenyls (PCBs)

Q: What are polychlorinated biphenyls (PCBs)?

A: PCBs are synthetic (man-made) mixtures of up to 209 individual chlorinated compounds (known as congeners). Many commercial PCB mixtures in the U.S. are known by the trade name Aroclor. PCBs are oily liquids or solids that are colorless to yellow. Some PCBs may also exist as a vapor in air. PCBs were once used commercially as coolants and lubricants in electrical transformers and capacitors, heavy-duty electrical equipment in power plants, industries, and large buildings across the country and other electrical equipment, carbonless copy papers, sealing and caulking compounds, paint additives, cutting oils, ballasts in fluorescent light fixtures, and hydraulic fluids. PCBs were valued for chemical stability and fire resistance.

Q: How do PCBs enter the environment?

A: In 1979, The United States Environmental Protection Agency (USEPA) banned the manufacture of PCBs in the United States. However, the USEPA did not require removal of PCB-containing materials still in service at the time of the ban. Therefore, some materials

remain in use today. The major source of environmental PCBs in the United States today is from ongoing use, storage, and disposal of products in landfills or improper disposal of products that contain PCBs. PCBs also may be released from sediments disturbed by flooding, dredging, and other activities.

Q: How do PCBs accumulate in fish?

A: Dioxins and PCBs have been found in soil, ground and surface water, air, sediment, plants, and animals in all regions of the world. Dioxins and PCBs break down very slowly in the environment and accumulate in fatty tissue, skin, and internal organs of fish and other animals. Levels of dioxins and PCBs in fish may be hundreds to a million times higher than the concentrations found in water or sediments. The amount of dioxins and PCBs found in fish varies with species, age, size, fat content, diet, and surface water and sediment concentrations. Generally, Larger, older fish will contain higher levels of dioxins and PCBs than smaller, younger fish; fatty fish such as spotted seatrout and catfish species may contain higher levels of dioxins and PCBs than lean fish such as southern flounder, red drum, and black drum.

Q: How can PCBs affect my health?

A: Eating fish that contain PCBs may cause infants of women who have eaten many contaminated fish to have lower birth weights, delayed physical development, and learning difficulties. PCBs may affect the immune system, reproductive organs, skin, stomach, thyroid, kidney, and liver and may increase the risk of cancer.

Q: What is the source of PCBs in Clear Creek?

A: DSHS does not attempt to determine contaminant sources. The Texas Commission on Environmental Quality (TCEQ) is the state agency responsible for identifying contaminant sources.

Q: I have been eating these fish all my life. Will I have adverse health effects?

A: The consumption limits recommended by the DSHS have allowed a margin of safety below those levels that could result in adverse health effects; however, eating more than the recommended amount of fish from Clear Creek does not necessarily mean that a person will have observable adverse health effects.

Q: Should I stop eating fish?

A: No. Fish are an important source of protein in the diet. The DSHS recommends that you follow general consumption guidelines and/or fish consumption advisories or bans issued for specific water bodies provided in the *DSHS Fish Consumption Advisories and Bans* booklet (copies of this booklet may be obtained by calling the DSHS Seafood and Aquatic Life Group (512)-834-6757 or by accessing the DSHS Seafood and Aquatic Life Group Web site at **http://www.dshs.state.tx.us/seafood**). Fish consumption

advisory information is also published in the *Texas Parks and Wildlife Outdoor Annual Hunting and Fishing Regulations* booklet. This booklet is provided to all licensed anglers in Texas.

Q: Will cooking or cleaning fish a certain way reduce the PCB level?

A: Yes. PCBs readily accumulate in the fatty tissues of fish. To reduce exposure to these chemicals, the skin, dark (reddish-color) muscle tissue, and fatty portions (i.e. belly fat, side fat, and fat along the top of the back) of the fish should be removed before cooking. The DSHS recommends baking or broiling skinned, trimmed fish on a rack or grill to allow fat to drip away from the fillet. If fish are fried, the frying oil should not be reused. These cooking methods will reduce exposure to many of the most common organic chemical contaminants in fish.

Q: Should I stop fishing?

A: No. Recreational fishing does not need to stop. Consuming fish in amounts recommended by the DSHS poses no significant health risk and catch-and-release fishing eliminates potential health risks.

Q: Should I be concerned PCBs while participating in contact recreation activities like boating or swimming?

A: There is not a concern for PCBs while swimming or other contact recreational activities. Levels in the water are low. The concern is for consumption of fish that concentrate the PCBs in their tissue.

Q: Will the Clear Creek fish consumption advisory be long term?

A: PCBs are contaminants that persist in the environment for years. Due to the long-lived nature of these contaminants there is a strong likelihood that the Clear Creek fish consumption advisory could be long term.

Q: Will the Texas Department of State Health Services (DSHS) conduct additional monitoring?

A: The DSHS will continue to monitor fish from Clear Creek if funding becomes available.

Sources of Information

United States Environmental Protection Agency (EPA) Chemical Fact Sheets
http://www.epa.gov/waterscience/fish/chemfacts.html

Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs
http://www.atsdr.cdc.gov/toxfaq.html

Agency for Toxic Substances and Disease Registry (ATSDR) Public Health Statements
http://www.atsdr.cdc.gov/phshome.html