



Department of Natural Resources and Environmental Control (DNREC)
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History and Synopsis of Delaware Fish Consumption Advisories

JUNE 2009

May 2, 1986: An advisory was issued for **Red Lion Creek** following a major industrial spill. The contaminants of concern were chlorinated benzenes and the area covered by the advisory was Route 13 downstream to the mouth. The advisory recommended that people not eat any fish from the affected area. This was the first fish consumption advisory issued in Delaware.

Feb 20, 1987: An advisory was issued for **Red Clay Creek** following a stocked trout recapture/contaminant uptake study. Contaminants of concern were PCBs and DDT. The concentration of PCBs in trout 4 months after stocking exceeded the FDA tolerance level of 2 ppm. Trout stocking in the Red Clay was curtailed indefinitely and the advisory recommended that people not eat any fish from the Red Clay (PA/DE line to the mouth). The advisory noted that the source of the PCBs may be in Pennsylvania but the source(s) of DDT had not been determined.

Jun 17, 1988: An advisory was issued for the **Saint Jones River** following a Federal Superfund investigation of the Wildcat Landfill. The advisory recommended that the public not consume white catfish or channel catfish taken from the Saint Jones. The contaminant of concern was PCBs. PCB concentrations in the channel catfish and white catfish exceeded the FDA tolerance level of 2 ppm in several samples collected from the tidal Saint Jones River near Lebanon, DE. The advisory noted that no link was established between the Wildcat Landfill and the fish contamination.

March 18, 1993: The **Saint Jones** advisory was expanded to include additional species and additional areas within the watershed. As was the case for the previous Saint Jones advisory, PCBs were the primary contaminant of concern. Under the new advisory, people were advised to limit their consumption of white perch, carp, largemouth bass, and all species of catfish from the Saint Jones River between the Silver Lake spillway and the Delaware Bay. In addition, the advisory recommended that people limit their consumption of catfish taken from **Silver Lake** and white perch and carp taken from **Moore's Lake**. This advisory, which was the first in Delaware to be based on quantitative risk assessment rather than FDA tolerance or action levels, determined that a person would need to limit consumption of fish taken from the above locations to no more than two eight ounce meals per year for 30 years to keep lifetime cancer risks at low levels. The advisory also noted that blue crabs from the Saint Jones had been tested and were suitable to eat, although people were advised not to eat the hepatopancreas (mustard). Specific sources of PCBs contributing to the advisory were not mentioned.

Jun 9, 1994: An advisory was issued for the **Delaware River and Bay**. The contaminant of concern was PCBs. The advisory recommended that people not consume

recreational-size striped bass (28-inches and larger), channel catfish, white catfish and white perch taken from the Delaware River between the PA/DE line and the Chesapeake and Delaware (C&D) Canal. For the area of the Delaware River and Bay from the mouth of the C&D Canal southward to the mouth of the Delaware Bay, the advisory recommended that adults limit their consumption of striped bass, channel catfish and white catfish to no more than five 8 ounce meals per year. For children, the advisory recommended no more than three 4 ounce meals per year for the area between the C&D Canal and the mouth of the Bay. The advisory was less stringent below the Canal because the type of PCB in the fish below the Canal was thought to be less risky based on the toxicological data available at the time. Finally, the advisory noted that several potential sources of PCBs were being investigated.

April 30, 1996: An advisory was issued for the **Christina River Basin** as a result of elevated levels of PCBs in the fish. The advisory recommended no consumption of any finfish caught in the tidal Christina River, the tidal Brandywine, the tidal White Clay Creek, and Little Mill Creek (from its mouth up to Kirkwood Highway). The advisory also recommended that people not consume more than one 8 ounce meal of fish per month from the non-tidal Christina River (from Smalley's Dam to I-95); the non-tidal White Clay Creek (from Route 4 to Paper Mill Road); and the non-tidal Brandywine (from Baynard Boulevard to the PA/DE line). Finally, the advisory reaffirmed the previous advice for the Red Clay Creek which suggested no consumption of fish from that waterway. The advisory noted that DNREC was investigating potential sources contributing to the problem, including waste sites and bottom sediments.

Jun 3, 1999: Several new and revised advisories were issued. A new advisory was issued for the **C&D Canal** due to elevated levels of PCBs. That advisory recommended that people not consume any fish from the Canal. New limited consumption advisories were also issued for the tidal **Appoquinimink River**, the tidal portion of **Drawyers Creek**, **Silver Lake (Middletown)**, **Wyoming Mill Pond** (near Camden), and **Becks Pond** (near Glasgow). Existing advisories for the Delaware River (between the PA/DE line and the C&D Canal), Moore's Lake (Dover), Silver Lake (Dover), and the tidal portion of the Saint Jones River were revised to include all fish, not just certain species. Other revisions included more restrictive meal advice for the Delaware Bay, the non-tidal Brandywine River, and the non-tidal Christina River. Finally, the existing advisory for the Red Lion Creek was revised to be less restrictive. PCBs were again the primary contaminant of concern for all of the new and revised advisories, although other contaminants, including Dioxins and Furans, DDT, Dieldrin, Arsenic and Mercury, were also identified as contributing to the advisories for some of the waterways.

Feb 21, 2002: A new advisory was issued for the **Shellpot Creek** due to elevated concentrations of PCBs in fish collected from Hay Road and Route 13. The advisory recommended that the public not consume fish from the Shellpot Creek. The advisory also mentioned several active investigations and cleanups of PCB sources.

Mar 4, 2004: The State of Delaware and the State of New Jersey jointly issued consistent fish consumption advice for the **Delaware Estuary** for the area from Cape Henlopen, DE to Cape May, NJ up to the Pennsylvania border. The consistent advisory recommended that no one should consume fish caught from the Delaware Estuary north of the C&D Canal up to the Pennsylvania border. South of the C&D Canal, the advisory recommended that no one should eat large bluefish (larger than 6 pounds or 24 inches).

Also for the area south of the C&D Canal, women of childbearing age and children were discouraged from eating any striped bass, smaller bluefish (smaller than 6 pounds or 24 inches), white perch, American eel, channel catfish and white catfish. Other people consuming these fish from the area south of the Canal were advised to eat no more than 1 meal per year. The primary contaminant of concern for this advisory was PCBs, although mercury, chlorinated pesticides, and dioxin were also mentioned. Arsenic (above the Canal) and Dieldrin (below the Canal) were *removed* as contaminants of concern for the advisories. No specific sources of PCBs or other contaminants of concern were mentioned.

Mar 30, 2006: Several new and revised advisories were issued. New advisories were issued for stocked trout; weakfish caught in the **Delaware River and Bay**; bluefish caught along the Delaware Atlantic Coast (including the Inland Bays); and all fish caught in **Army Creek** and **Army Pond**. Revised advice was issued for: bluefish in the lower Delaware River and Bay; all fish in **Red Lion Creek**; and all fish in the **Red Clay Creek** (although we failed to highlight this change in the advisory). Finally, the existing advisories for the non-tidal **White Clay Creek** and non-tidal **Christina Creek** were expanded upstream to the PA/DE border and MD/DE border, respectively. PCBs were identified as the primary contaminant of concern in all of these advisories, with Dieldrin, Dioxin, and Mercury also playing a roll in some of the advisories. No specific sources of PCBs or other contaminants of concern were mentioned in this advisory. This advisory explicitly acknowledges, for the first time, the risks *and* benefits associated with fish consumption.

May 17, 2007: A new advisory was issued for **Prime Hook Creek** and **Waples Pond** due to elevated mercury levels. A new advisory was also issued for **Slaughter Creek** due to PCBs and dioxins and furans. Finally, a new **Statewide Advisory** was issued that recommended that no one eat more than one meal per week of any fish in Delaware's fresh, estuarine and marine waters. This general statewide advisory applies to all fish species and all waters not otherwise covered by a specific Delaware fish advisory.

June 19, 2008: A new advisory was issued for the nontidal **Shellpot Creek** for all waters upstream of Governor Printz Boulevard. The new advisory recommended that people consume no more than 1 meal per year. The contaminant of concern was Dieldrin. The geographic extent of the pre-existing advice for the lower Shellpot was revised from 'Philadelphia Pike to the Delaware River' to 'Governor Printz Boulevard to the Delaware River.' The advisories for the nontidal **Brandywine Creek** and the **Red Clay Creek** were relaxed from no more than two meals per year to no more than six meals per year based upon long-term improvements in contaminant levels in fish from those waters. Finally, the advisory for **Becks Pond** was lifted in its entirety.

June 3, 2009: A new advisory was issued for striped bass caught from Delaware's **Atlantic coastal waters** (mouth of the Delaware Bay southward to the MD/DE border). Women who are pregnant, women who may become pregnant, and children less than 6 years old (defined as high risk groups) were advised to not eat striped bass from the Atlantic coast. The general population was advised to limit their consumption of striped

bass caught from the Atlantic coast to no more than 2 meals per year. The new advice for the high risk groups was consistent with and coordinated with advice issued on the same day by 6 other New England and Mid-Atlantic coastal states. The contaminant of concern was PCBs, although Delaware noted that these fish also contain other contaminants, including mercury. In addition to the new advisory for striped bass caught along Delaware's Atlantic coast, Delaware also revised its existing advice for striped bass caught in the **Delaware Bay**. The advisory for the general population was revised from no more than 1 meal per year to no more than 2 meals per year. The existing advice for the high risk groups (Do Not Eat striped bass from the Delaware Bay) was not changed. Further, the advice for striped bass and other fish caught in the tidal Delaware River between the C&D Canal and the PA/NJ/DE border north of Wilmington (Do Not Eat) was not changed.