



Evaluating the Fish Consumption Use in Lower Leon Creek A Risk Assessment

In 2003, the Department of State Health Services (DSHS) advised people not to eat any fish from a portion of Lower Leon Creek (Segment 1906). The advisory covered the area of the creek from the State Highway 90 bridge downstream to the Interstate Loop 410 Bridge.

High levels of polychlorinated biphenyls (PCBs) made it unsafe to eat fish from the creek. The term PCBs is used to describe 209 toxic and environmentally persistent compounds. Learn more about consumption advisories by visiting the [Fishing Advisories and Bans¹](#) page on the DSHS website.

In response to this advisory, the Total Maximum Daily Load (TMDL) Program initiated a project to verify the extent of the fish consumption impairment in the creek. Learn more about water quality standards, monitoring, and TMDLs by reading [Preserving and Improving Water Quality²](#), available on our website and in print.

Watershed Description

Lower Leon Creek, Segment 1906, drains an area of 228 square miles in Bexar County and has a total continuous length of 57 miles. It originates as a spring-fed stream in the Edwards Plateau region of south-central Texas. The creek runs from its headwaters in northern Bexar County to its confluence with the Medina River. It generally flows south and enters the main portion of the former Kelly Air Force Base from the northwest, near the intersection of Billy Mitchell Road and Westover Road.

Leon Creek drains a highly urbanized residential area and the Kelly and Lackland Air Force bases. Water quality in Leon Creek is affected by industrial and municipal wastewater discharges and stormwater. The project watershed includes the cities of San Antonio, Cross Mountain, Helotes, and Leon Valley.

Project Development

TCEQ began this project in 2007. Several organizations worked concurrently to collect environmental data, including the U.S. Geological Survey (USGS), San Antonio River Authority (SARA), San Antonio Metro-



politan Health District (CoSA) Public Center for Environmental Health (PCEH), and administrators of the former Kelly Air Force Base.

TCEQ contracted with DSHS to collect and analyze fish at five stations along Lower Leon Creek. DSHS reassessed the consumption risk based on the results of this expanded sampling and issued a new fish consumption advisory (ADV-42), which expanded the geographic extent of the original advisory (ADV-26). People are still advised not to eat the fish from the creek. Information about the ban is available on the DSHS webpage [Fish Advisories and Bans³](#).

Local interest in the fish consumption impairment also spurred a survey and characterization of PCBs in sediments. This survey was a collaborative effort of USGS, SARA, and CoSA PCEH.

Monitoring at the former Kelly Air Force Base also yielded PCB data. EPA has implemented a [clean-up plan for Kelly Air Force Base⁴](#).

¹ <https://www.dshs.texas.gov/seafood/advisories-bans.aspx>

² <https://www.tceq.texas.gov/publications/gi/gi-351>

³ <https://www.dshs.texas.gov/seafood/advisories-bans.aspx>

⁴ https://ofmpub.epa.gov/apex/cimc/f?p=CIMC:RCRA:::P14_RCRA_HANDLER_ID:TX2571724333

Public Participation

In all its projects, TCEQ seeks to gather opinion and information from people who represent government, permitted facilities, agriculture, business, environmental, community, and private interests.

The public was informed about the status of this project through the SARA Basin Steering Committee.

For More Information

Visit the project webpage at:

www.tceq.texas.gov/waterquality/tmdl/73-leoncreek-pcbs.html

Email us at tmdl@tceq.texas.gov or call us at 512-239-6682.

Project Dates

Data collection completed: Fall 2007

Data analysis completed: 2008 - 2009

Risk characterization completed: June 2010

Project Highlights

- DSHS issued Fish Consumption Advisory ADV-42 on June 29, 2010. The advisory extended ADV-26 (2003) from Military Drive downstream to Interstate Loop 410.
- The final report from USGS characterizing PCB levels in sediments from Lower Leon Creek and other streams in the San Antonio River basin was published in 2011. The report, [Assessment of Selected Contaminants in Streambed- and Suspended-Sediment Samples Collected in Bexar County Texas, 2007–09](#), Scientific Investigations Report 2011–5097, is available on their website.

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