

Letter Health Consultation

BETHANY LAKE

ALLEN, COLLIN COUNTY, TEXAS

**Prepared by the
Texas Department of Health**

MARCH 12, 2010

Prepared under a Cooperative Agreement with the
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Agency for Toxic Substances and Disease Registry
Division of Health Assessment and Consultation
Atlanta, Georgia 30333

Health Consultation: A Note of Explanation

A health consultation is a verbal or written response from ATSDR or ATSDR's Cooperative Agreement Partners to a specific request for information about health risks related to a specific site, a chemical release, or the presence of hazardous material. In order to prevent or mitigate exposures, a consultation may lead to specific actions, such as restricting use of or replacing water supplies; intensifying environmental sampling; restricting site access; or removing the contaminated material.

In addition, consultations may recommend additional public health actions, such as conducting health surveillance activities to evaluate exposure or trends in adverse health outcomes; conducting biological indicators of exposure studies to assess exposure; and providing health education for health care providers and community members. This concludes the health consultation process for this site, unless additional information is obtained by ATSDR or ATSDR's Cooperative Agreement Partner which, in the Agency's opinion, indicates a need to revise or append the conclusions previously issued.

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LETTER HEALTH CONSULTATION

BETHANY LAKE

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Prepared By:

Texas Department of State Health Services
Under Cooperative Agreement with the
U.S. Department of Health and Human Services
Agency for Toxic Substances and Disease Registry



TEXAS DEPARTMENT OF STATE HEALTH SERVICES

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February 23, 2010

Mr. Robert Townsend
Park Services Manager
City of Allen Parks and Recreation Department
305 Century Parkway
Allen, TX 75013

Subject: Bethany Lake Reflection Pond Sediment, City of Allen, Collin County, Texas

Mr. Townsend,

Background and Statement of Issues

The City of Allen, Parks and Recreation Department (P&RD) was concerned that sediments in the Bethany Lake Reflection Pond (BLRP) might have accumulated metals because of storm water runoff from a nearby former shooting range. The City wanted to know if the sediments dredged from the pond were safe to use as fill in park landscaping projects. This consultation assesses the pond sediment for the purpose(s) of safe reuse as fill in park landscaping.

Discussion

The P&RD collected five grab samples of sediment from the BLRP in May 2009. The samples were analyzed for metals that might be expected on an outdoor shooting range by a contract laboratory using EPA SW-846 preparative and instrumental analysis methods. On June 5, 2009, the P&RD forwarded the raw sample and quality control data to the Texas Department of State Health Services (DSHS), Exposure Assessment, Surveillance, and Toxicology Group for evaluation.

DSHS was specifically requested to evaluate for potential public health hazards associated with total antimony, arsenic, and lead concentrations found in the pond sediment, regardless of the source. Antimony was not detected in any of the five samples. Arsenic was detected at low levels (1.35-8.37 milligrams per kilogram-mg/kg) in three of the five sediment samples. Lead was detected at low levels (4.39-8.96 mg/kg) in all five of the sediment samples. The concentrations of the metals detected in the sediment did not exceed appropriate noncancer health-based screening values. Though the concentrations of arsenic in the sediment exceeded the health-based cancer screening value, both the levels of arsenic and lead measured in the sediment samples were comparable to those found in uncontaminated areas. Thus the risk of experiencing health effects due to exposure to BLRP sediments would be no different than if a person were exposed to sediments taken from any uncontaminated area.

Conclusions

We conclude that touching or accidentally eating metals found in sediment dredged from BLRP is not expected to harm people's health. Although park patrons enjoy recreational activities at the park and grounds keepers work throughout the park, the amount of metals that could get into an adult's or child's body by these activities is below a level that would harm their health.

Recommendations

None.

Public Health Action Plan

No public health actions are needed related to BLRP sediment.

If you have any questions, please contact me at (512) 458-7111 extension 6704.

Sincerely,

Susan L. Prosperie, MS, RS
Group Manager, Exposure Assessment,
Surveillance, and Toxicology Group

References

ERMI Environmental Laboratories Sediment Sampling Results Bethany Lake Reflection Pond, City of Allen Parks and Recreation Department, 5/28/09.

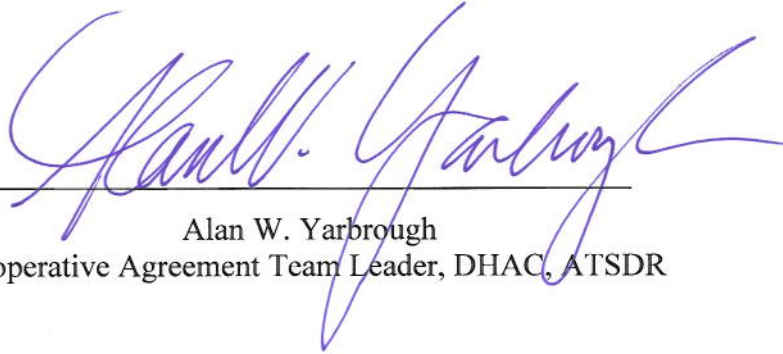
Certification

The Texas Department of State Health Services prepared this letter health consultation for Bethany Lake Reflection Pond in the City of Allen, TX under a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). It was completed in accordance with approved methodology and procedure existing at the time the health consultation was initiated. Editorial review was completed by the cooperative agreement partner.



Jeff Kellam, M.S.
Technical Project Officer
Division of Health Assessment and Consultation (DHAC)
ATSDR

The Division of Health Assessment and Consultation (DHAC), ATSDR, has reviewed this health consultation and concurs with its findings.



Alan W. Yarbrough
Cooperative Agreement Team Leader, DHAC, ATSDR