Attachment 7

Summary of Sediment Results:

There are no acute health issues that would be expected from the concentrations of compounds observed to date. As noted for exposures to flood waters, pathogenic/bacteriologic agents are of concern.

The maximum detected concentrations out of 405 sediment samples are being compared to screening standards developed to be protective of residential exposure 350 days/year for 30 years. As an conservative measure, the maximum detected concentrations in sediment are used for the comparison to screening standards. This use of maximum concentrations typically overestimates risk, but is often used for screening out constituents that are not of further concern. To date the total number of constituents whose maximum values exceed LDEQ residential screening levels based on chronic exposure, is approximately 17 out of the approximately 200 constituents analyzed for in each sediment sample.

Metals - not an acute human health concern

- Maximum concentrations of arsenic, chromium, iron and lead exceeded the risk-based standards for daily exposure. Thallium (max value of 6.63 mg/kg was detected in 2 of the zip codes above the screening levels (5.5 mg/kg).
- In this data set EPA is comparing arsenic levels to their multi-specific screening level of 0.39 mg/kg. LDEQ's statewide background concentration for arsenic is 12 mg/kg. EPA identified exceedances of screening levels 19 zip codes. Arsenic levels exceeded the LDEQ standard of 12 mg/kg in 13 of the zipcodes.

Metals with maximum concentrations above standards:
Arsenic
Chromium
Lead
Iron
Thallium

Pesticides/Herbicides - detected at low levels, these levels are not an acute human health concern

- Low levels of pesticides/herbicides were detected in the sediment. Aldrin, dieldrin and heptachlor epoxide exceeded the risk-based standard for daily exposure over 30 years.

Pesticides with maximum concentrations above standards:
Aldrin
Dieldrin
Heptachlor epoxide

Semi-volatiles - detected at low levels, these levels are not an acute human health concern

- Low levels of polynuclear aromatic hydrocarbons (PAH's) were detected in the sediment. The maximum concentrations of the detected PAH's (primarily associated with oil and grease) exceed the risk-based standard for daily exposure over 30 years.

Semi-volatiles with maximum concentrations above standards:
Benzo(a)anthracene
Benzo(a)Pyrene
Benzo(b)Fluoranthene
Indeno(1,2,3-cd)pyrene
Dibenz(a,h)anthracene
TPH-D
TPH-O
Bis(2-Ethylhexyl)phthalate
n-Nitrosodi-n-propylamine

Volatiles – None seen in this data set.