

Dr. Volz described and presented tables of a paper that he and his PhD student Maxine-Wright -Walters are writing entitled Environmental Concentration of Pharmaceutical Estrogens and Xenoestrogens (PEXEs); Implications for Wildlife and Human Health. This paper will initially be circulated to members of the EPHT Water Group and other EPHT researchers and posted on the Water Group's Share Drive as a whitepaper. The manuscript details 28 studies from around the world that have measured definitive concentrations of PEXEs in surface water and sewage treatment plant influent and effluents. A basis is laid in the papers conclusion for long term exposure-epidemiological studies to determine if PEXE exposure leads to an excess risk of developing estrogen positive breast, ovarian or uterine cancer in women or testicular or prostate cancer and testicular dysgenesis syndrome in men. R. Volz also presented water indicator results from field studies done during the summer of 2008 in the mid-Allegheny River. River Mining for gravel is still allowed on the Allegheny River, the main source of water for metropolitan Pittsburgh. Dr. Volz described how his team sampled water downstream from the mining operation both before mining activities started and 2 hours after the activity began. Samples were taken at 7 monitoring stations, predetermined using GIS techniques, at 3 depths at each station. Preliminary results indicate that all before samples (no mining for over 10 hours) had lower Total Suspended Sediment (TSS) than paired samples taken while mining was in process, this difference in turbidity was significant at  $p = .00001$ . These samples are now undergoing analysis by ICP-MS methods to determine if the levels of nuisance and toxic metals and elements of the following species are higher during the mining process: As, Cd, Cu, Cr, Se, Hg, Mn, Fe, Pb, Co.