

## Community concern or issue: *Pharmaceutical & Personal Care Products (PPCPs) waste disposal*

### How does this issue impact citizen health or the environment?

PPCPs are prescription and non-prescription drugs and personal care products such as insect repellents, soaps, fragrances, cosmetics, sun-screen products, and vitamins. Large quantities of PPCPs enter the environment daily in city sanitary sewers through bodily excretions, bathing, and flushing. In the U.S., tons of unused pharmaceuticals are flushed down the drain annually by hospitals, long-term care facilities, veterinary clinics, residential homes, and prisons. Although this process is legal and was formally encouraged, typical wastewater treatment facilities are not designed to treat or remove pharmaceuticals before the water is discharged to local receiving waters. PPCP chemicals pass through the treatment plant and are discharged into rivers, which are often the source of drinking water for communities downstream.

The U.S. Geological Survey (USGS) sampled 139 streams across 30 states during 1999 and 2000 to measure concentrations of 95 organic wastewater contaminants. These contaminants were found in 80% of the streams. In multiple studies in the U.S. and Canada, the feminization (early stage eggs in the testes of male fish) of bass species has been linked to lowered sperm production, trouble reproducing, and other negative health consequences.

Researchers believe the condition may be caused by endocrine-disrupting compounds, including natural and synthetic estrogens found in the PPCP-contaminated waters.

### Existing controls or standards

The federal government (EPA) doesn't require testing for PPCP-type chemicals in wastewater discharge or drinking water supply

intake. Drinking water must meet certain maximum contaminant levels, but testing is not required for PPCP types of chemicals. In October 2009, the Office of National Drug Control Policy issued guidelines for the proper disposal of prescription drugs (see full issue paper for guidelines).

### How is this issue impacting Salina?

Currently, little is known as to the impact of chemicals from PPCPs on humans here, or if it has affected our local environment.

### What factors and behaviors contribute to this problem?

PPCPs are added to sewers through excretion, bathing, and flushing. Citizens are probably unaware of recommended disposal options.

### Potential solutions, how can the community help with this issue?

At this time, the best solution is preventing PPCPs from entering the wastewater stream. The Saline County Sheriff's Office has a pharmaceutical collection program. Providing education on the potential effects of these products might encourage the community to minimize use of personal care products, use more environmentally friendly products, and use other disposal practices for pharmaceuticals. Unused personal-care insecticides should be disposed through the household hazardous waste program.

NOTE: This fact sheet was taken from an issue paper developed by Barb Johnson, Carol and Mike White.

The detailed fact sheet can be accessed at [www.sbeap.org/CARE](http://www.sbeap.org/CARE)