# Pretreatment Program Introduction

The Pretreatment program protects the wastewater treatment process. Wastewater treatment uses living bacteria to remove dissolved substances from wastewater. The bacteria can be poisoned by a number of substances including heavy metals, organic solvents, and detergents. Bacteria can also be killed by heat, by concentrated acids (low pH wastes), or by concentrated alkalis (high pH wastes).


In the mid-1970s following the passage of the Clean Water Act, the federal government invested hundreds of millions of dollars in constructing new wastewater treatment facilities. Then they discovered that the new facilities were sometimes ineffective because toxic materials in sewage killed the bacteria that should have performed treatment, so that the treatment plants could not function. Federal regulations were passed requiring cities with industries that discharge to their facility to regulate those industries to keep toxic wastes from killing the treatment facility bacteria.

The regulations implementing the Federal Clean Water Act mandates that cities like Pueblo operate a Pretreatment Program to limit potentially toxic industrial wastes that could cause interference with the treatment process or that could pass through the treatment process and harm the environment. These regulations contain both lists of categorical industries with specific effluent limits for specific substances for each type of industry, and also require that limits be placed on other significant industrial users so that the beneficial uses of the receiving waters are protected.

Pueblo issues discharge permits to Significant Industrial Users that are connected to Pueblo's sanitary sewer system. These discharge permits establish numeric limits for specific substances, and contain other requirements like routine self-monitoring and reporting and special reporting for unusual events. All limitations and requirements of Significant Industrial User permits are aimed at ensuring that the biological wastewater treatment process is protected from interference, and that toxic substances cannot pass through the treatment process into the receiving waters.