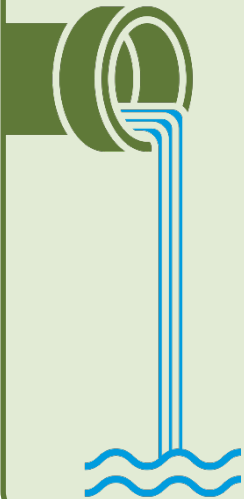


Characteristics of Industrial Wastewater

- Water that has been used in an industrial process and contains one or more pollutants
- Sources include water that has been used to rinse off equipment, clean work surfaces, cool equipment, and create liquid solutions for manufacturing processes
- May contain oil, detergents, acids, metals, and chlorine at levels high enough to harm surface waters if released directly into them
- May make surface water unsafe, kill fish and aquatic plant life, prohibit recreational use, and contaminate drinking water



Potential Negative Effects of Contaminated Wastewater

- May be unintentionally discharged to surface water without adequate treatment to remove contaminants
- May deplete the oxygen in surface water and kill aquatic life through the decomposition of organic matter
- May cause murky water, which could prevent the photosynthesis of bottom-dwelling plants
- May impair the ability of fish to smell, locate food, and protect themselves from predators due to heavy metal contamination
- May cause health problems and diseases in humans as a result of contact or ingestion



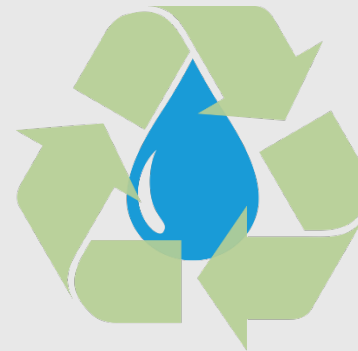
Industrial Processes That Produce Wastewater

- The automotive industry uses water to paint vehicles and to service manufacturing equipment
- The paper manufacturing industry uses water for pulping and finishing
- The leather production industry uses water for soaking, dehairing, degreasing, and tanning the leather
- The cosmetics production industry uses water in its equipment wash-down solutions

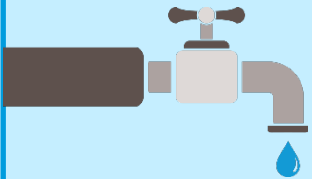


Actions that support wastewater management include:

- Reducing sources of wastewater pollution
- Recycling and reusing wastewater
- Preventing spills and accidental releases
- Stopping an accidental release
- Containing an accidental release
- Reporting an accidental release to management



Reduce



- Guideline: Use only the amount of water required to complete a task, and no more
- Example: If washing down a piece of equipment, stop the water flow as soon as the equipment is sufficiently clean
- Moving Forward: Share your ideas for reducing sources of wastewater pollution with management

Recycle



- Guideline: Reclaim wastewater and use it for other purposes
- Example: Collect wastewater in a receptacle and use it for irrigation or toilet flushing
- Moving Forward: Be aware of your facility's wastewater reclamation and reuse policies, and make sure your water use is in line with those policies

Prevent Spills



- Guideline: Prevent spills that could contaminate equipment and work areas
- Example: Inspect and maintain equipment according to the schedules and procedures your company has established
- Moving Forward: Learn and follow your facility's spill prevention, control, and countermeasures (SPCC) procedures

Stop a Release

(possible actions)

- Plug a hole
- Block a floor drain
- Close a valve

Contain a Release

(possible actions)

- Place a receptacle under a leak
- Use barriers or sandbags to keep wastewater from flowing from one area of the facility to another

Report a Release

- If you witness, or become aware of, an accidental wastewater release, immediately report it to management
- It is your management team's responsibility to determine whether the release deviates from the conditions required by your facility's discharge permit and must therefore be reported to regulatory authorities

Management Requirements

- Obtain an applicable discharge permit
- Comply with the discharge parameters set forth in the facility's permit
- Provide equipment, policies, and procedures, that ensure permit compliance
- Discharge wastewater to a publicly owned treatment works (POTW), or directly to surface water, as specified in the permit
- Comply with associated treatment, testing, and reporting requirements if discharging directly to surface water
- Report to regulatory authorities any wastewater release that deviates from the conditions required by its discharge permit