The Quality of Council Bluffs Rivers and Streams are up to US!

Our urban landscape is covered with impervious surfaces such as roadways, parking lots, rooftops and compacted soils where pollutants can accumulate. Storm water runoff is rainfall or snowmelt that washes these pollutants into streams, rivers and lakes.

Increased urban development creates more impervious surfaces which increases the amount of water draining to streams, rivers or lakes. Streams can handle only so much water; when more water is generated than a stream can handle, the water spills out into nearby floodplains (areas bordering streams and rivers). This flooding damages property and downstream drainage structures. Urban areas are especially prone to "flash" floods which can also be destructive to streams and aquatic life.

Surface Water Pollution

Too much sediment (dirt that ends up in water) is not good for our environment. Muddy water in streams and lakes can impact fish and other aquatic life as well as change the water chemistry.

Excess nitrogen and phosphorus in a stream, river or lake is not good for the environment either. These elements come from fertilized lawns and landscapes. Too much phosphorus in water promotes algae growth which depletes oxygen in the water. When this happens, it not only creates an unpleasant environment for recreation (swimming or kayaking) but also for fish and other aquatic life.

Furthermore, too much of the wrong bacteria is not good for water bodies and can make humans and animals sick. Bacteria like e.coli and fecal coliform come from pet and wildlife waste as well as failing septic systems. When this bacteria gets flushed

into stormwater runoff, it can result in boil orders for drinking water and closed beaches.

Other Chemical Pollutants

- Salts that are applied to sidewalks, roads and parking lots in winter
- Trash and litter that wash through the storm sewer systems and end up in our local streams

Degraded Streambanks and Channels

Flash floods and heavy rains cause erosion on a stream's bed (bottom) and bank (sides). Streams typically respond to this change either by getting wider or deeper, or both. Streambank erosion adds to the amount of undesirable sediment in streams. As streams change shape and movement, fish and wildlife are impacted.

Flooding and Floodplains

A floodplain is the land near a body of water where flooding may occur during a 100-year storm/flood. A 100-year storm has a 1% chance of occurring in any given year, not an event that occurs every 100 years. In Council Bluffs, a 100-year storm occurs after 7.99 inches of rainfall in a 24-hour period.

Stormwater runnoff drains faster and in larger quantities in developed areas which expands boundaries of floodplains. Property and structures not previously subject to flooding may be at risk after development.

Moving Forward

To prevent poor water quality and community flooding, rainfall and stormwater must be properly managed. For more information on storm water management, please visit the City of Council Bluffs website.

www.councilbluffs-ia.gov/416/Storm-Water-Management