**Understanding Stormwater**

**What is Stormwater?**
Stormwater is rain or melting snow that does not infiltrate into the ground. As stormwater travels across lawns, parking lots, gardens, roofs, and roadways, it can pick up pollution like trash, gasoline, motor oil, fertilizer, pesticides, and bacteria from pet waste.

The polluted water, or stormwater runoff, can enter a storm drain system separate from the sanitary sewer system and does not get "cleaned" at a treatment plant before discharging into our waters.

**Where does our stormwater go?**
Most often, stormwater runoff from rooftops, yards, sidewalks, and streets flows into underground pipes through grates in the roadway.

**How much water is produced in a storm?**
If the stormwater from our five monitored watersheds were to flow untreated to the Boise River, there would be more than four feet of water covering the field!

**What is in our stormwater?**
Stormwater can transport sediment and roadways into the Boise River. Water that is polluted with sediment becomes murky and turbid, blocking sunlight to aquatic plants and clogging gravel beds used for fish spawning.

**Nutrients**
Nutrients like phosphorus and nitrogen are picked up by stormwater from lawns and street gutters. Leaf litter and clippings and leaves are picked up by stormwater from lawns, parking lots, gardens, rooftops, and roadways, it can pick up pollution like trash, gasoline, motor oil, fertilizer, pesticides, and bacteria from pet waste. The polluted water, or stormwater runoff, can enter a storm drain system separate from the sanitary sewer system and does not get "cleaned" at a treatment plant before discharging into our waters.

**Bacteria**
Bacteria such as E. coli pose a health risk to the community and the Boise River. Typically, these bacteria levels are higher during the summer, which can be challenging for recreation in the Boise River. The source of bacteria in urban stormwater is usually animal waste including dogs, cats, and waterfowl.

**Monitoring Stormwater**
ACHD collects samples of stormwater runoff at five monitoring locations. The colored areas represent land that contributes to the samples.

**Why do we monitor stormwater runoff?**
We collect flow, rain, and stormwater runoff water quality data from representative areas of the city to meet permit requirements and understand the levels of pollutants discharged to the Boise River. The data collected helps inform management decisions aimed to reduce pollution.

**Why do we care?**
As our community grows, so do the sources of pollution and potential for causing water quality problems in the Boise River.

Monitoring water quality in the storm drain system helps us understand the types, amounts, and sources of pollution in our stormwater runoff.

This information helps us focus pollution prevention and treatment efforts.

**Which pollutants are the most concerning?**

<table>
<thead>
<tr>
<th>Potential Problem</th>
<th>Problem Pollutants</th>
<th>Concerning Pollutants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sediment</td>
<td>Total suspended solids, turbidity</td>
<td>Dissolved lead, arsenic, cadmium</td>
</tr>
<tr>
<td>Bacteria</td>
<td>E. coli</td>
<td>Dissolved copper, lead, zinc</td>
</tr>
<tr>
<td>Nitrates</td>
<td>Nitrogen</td>
<td>Dissolved copper, lead, zinc</td>
</tr>
<tr>
<td>Phosphates</td>
<td>Phosphorus</td>
<td>Dissolved copper, lead, zinc</td>
</tr>
</tbody>
</table>

**What can you do to reduce stormwater pollution?**
- Unclog residential storm drains that become blocked
- Prevent car wash waste from going down the storm drain
- Allow pet waste to decompose with grass clippings
- Pick up pet waste
- Follow directions for fertilizer use
- Sanitize and dispose of animal feces
- Prevent car wash waste from going down the storm drain
- Go to a car wash

**Learn More**
ACHD ENVIRONMENTAL DEPARTMENT | 208.387.6250 | TTY 1.800.377.3529
PARTNERS FOR CLEAN WATER | WWW.PARTNERSFORCLEANWATER.ORG
NODES PHASE I ANNUAL STORMWATER MONITORING REPORTS