

# Types of Piping Systems

by Kelly Nordstrom



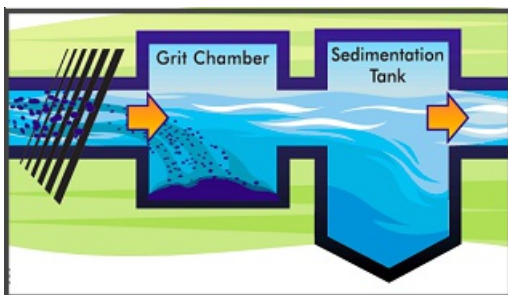
## WHAT'S COVERED

Wastewater treatment may involve machinery that requires installation and repair. It is critical to understand how to recognize hazardous water and the process required to apply required treatment:

1. Primary Stage of Wastewater Treatment
2. Secondary Stage of Waster Treatment
3. How to Identify Repair Needs within the Grit Chamber

## 1. Wastewater Treatment: Primary Stage

The primary stage of wastewater treatment involves inflow of raw water that enters the **grit chamber**. This section filters sand, chemicals, and biosolids.



As you can see in the image above, inflow is passed through the grit chamber and into the sedimentation tank. It is important to understand that **alkalinity** is what is measured to decipher...



## TERMS TO KNOW

### Alkalinity

The measure of substances ability to neutralize acid. Water containing carbonates, bicarbonates, hydroxides. Alkaline substances have a pH value of 7+.

### Grit Chamber

Narrow tanks designed to slow down the flow so that solids such as sand, coffee grounds, and eggshells will settle out of the water. Grit causes excessive wear and tear on pumps and other plant equipment.

➦ **EXAMPLE** A residential neighborhood is across from a corporate business with a separate sewer

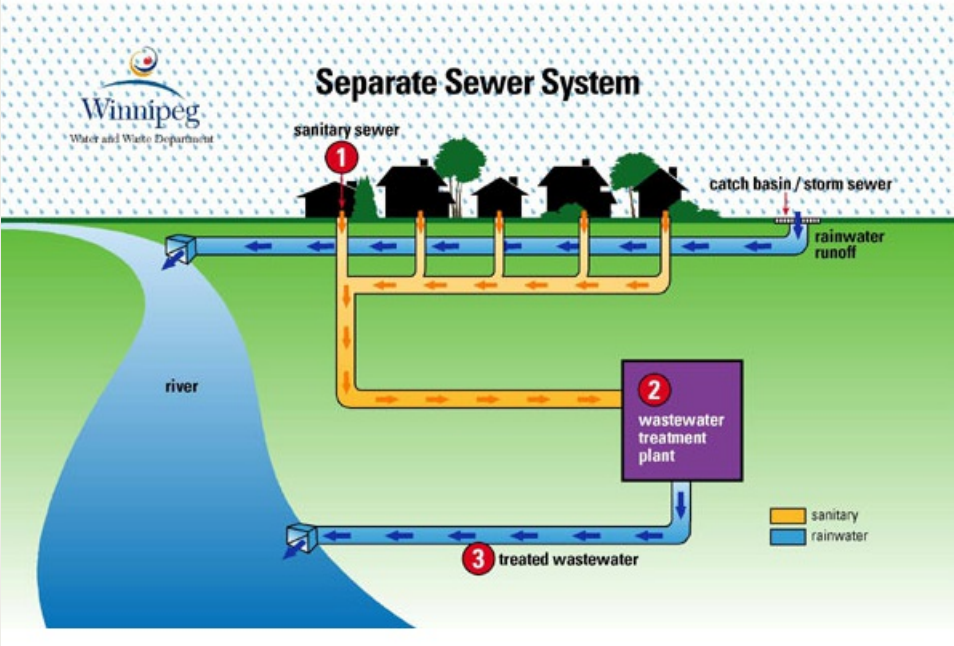
system. The 'alkalinity' value is at 12 when measuring from the business, however..

IN CONTEXT

You are assigned to treat water for a residential neighborhood with a separate sewer system. You need to identify the sanitary sewer and determine the location of the catch basin/storm sewer. The wastewater treatment plant is experiencing a leak and you anticipate a breakdown of the grit chamber. Etc,  
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- point one
- point two
- point three



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2. Section Header Two

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2a. Subheader

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## SUMMARY

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Source: This work is adapted from Sophia author Ian McConnell.