



The City of Oakes is continuously working to replace deteriorated infrastructure throughout the City. One of the major goals of the construction project currently being completed in the City is to remove the cast-iron water mains and replace them with new PVC water mains. By replacing the corroded water mains, the water quality and water flow will be greatly improved throughout the City.

These photos taken during the past 2 months of construction are an example of the condition of the existing water mains here in Oakes. The photo shows a section of cast iron pipe (CIP) water main that has been in service in the City for over 60 years. As shown on the photo, the water main has a thick layer of iron-rich scale that has built up on the interior of the pipe over the years. This scaling has a reddish color which builds and builds to a point where water flow can be severely restricted. In this case, more than  $\frac{1}{2}$  of the pipe is blocked. This explains the reddish color you may see from your tap from time to time. For example, whenever there is a large need for water, such as during a fire, the high flow of water through the mains agitates the system and pieces of the red scaling breaks off into the water. See the diagram below for an illustration of this scenario.

## The City's Water Distribution System

