

# CITY OF ARLINGTON

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P.O. BOX 68, ARLINGTON, OR 97812

PHONE: 541-454-2743

FAX: 541-454-2753

TTY: 800-572-0638

The City of Arlington would like to share some information about our water system.

## **Why is our Water Brown in Arlington?**

- The City's water comes from deep basalt supply wells, which have dissolved minerals in the water.
- These minerals come out of solution and settle as solids in the water system when pumped from the ground.
- When flow patterns in the City's main water pipelines change, the solids get stirred up in the pipes and make the water brown.
- The system will return to clear water in the near future.
- Specifics about how this happens is as follows.

## **Dissolved Minerals Are Present in Basalt Water Supply Wells**

- All basalt wells have some dissolved minerals, such as iron and manganese.
- This is common for any City using basalt wells. Some basalt wells have more minerals than others.
- Testing has confirmed the presence of these minerals in Arlington's wells. This is common.
- These minerals exist in the groundwater in an environment where no oxygen is present.
- They are in solution in the water when in the ground.

## **Minerals Come out of Solution (become solids) and Settle in the Water System**

- When the water is pumped from the ground, it gets oxygenated and chlorinated.
- These actions result in the dissolved minerals precipitating out of solution, meaning they become solids.
- The solids then settle in the water system, sometimes in the base of the reservoir, or in lower flow areas of the main pipelines.
- The settled solids from the water are the source of the brown water.

## **When Standard Flow Patterns Change, Settled Solids Get Stirred Up**

- During normal water system demands, the pipelines do not get stirred up and the water stays clear.
- When abnormal flow patterns occur, settled solids get stirred up, resulting in brown water.
- Such flow patterns include fire flow events, broken water main lines, reservoirs getting drained down, etc.
- This is what has happened recently with the water system. With the reservoir getting drained down, it was then filled up with high velocity pumping, flows returning to the main lines, reservoir draining down low to move sediment, etc. All these events have mobilized the sediment in the system, resulting in brown water.

## **Is the Water Safe to Drink?**

- Yes. The City's water is regularly sampled and analyzed, in accordance with regulatory requirements.
- The City continues to meet regulatory guidelines.
- The brown water is not a health concern. It is a nuisance issue for customers.

*The City of Arlington is an Equal Opportunity Provider.*

**When Will The Water Clear Up?**

- Once the reservoir is filled up and pipelines return to normal flow patterns, the water will clear up with time.
- How long it takes is an estimate, but the dissolved solids will settle back down, and the brown water eventually will clear up.

**What is the City Doing to Help?**

- The reservoir draining was a failed sensor that reads and reports the reservoir water levels.
- Equipment fails with age, and failures are most common when cold weather occurs.
- The City has replaced the failed equipment with new equipment, which solved the reservoir draining problem.
- The City may flush some water lines to help clear out the brown water, but this can also result in stirring up more solids, so it may be best to slowly let the system clear itself.

**What Can I Do To Help with My Water?**

- The more water you flow, the quicker the system should clear up.
- Flowing water (cold water) will help to clear out the water system.