|  |  |  |
| --- | --- | --- |
| CITY OF MOLALLA WATERC:\Users\nlennartz\Desktop\Logos for City\2 inch Emblem Spot.jpgTREATMENT PLANT | SETTLED WATER TURBIDITY SAMPLINGSOP | DATE ISSUEDNOVEMBER-2016 |
| SOP #14 |

**Overview**

Settled water turbidity samples are taken daily (excluding weekends). These samples are needed to track and improve the performance of particulate removal from the clarifier. The Oregon Drinking Water Program has set Water Treatment Plant Optimization Goals noted below.

**Sample Location**

Raw water turbidity sample is taken at the Raw Water Turbidimeter.

For Filter #1, a grab sample is taken from the clarifier.

For Filter #3 and #4, grab samples are taken at the top level of the tube settlers before filtration.

**Sample Procedure**

Grab samples are collected in a 100ml beaker at the locations noted above. Pour the grab sample into the 40ml sample vile. Wipe the outside of the vile with cloth and apply silicon oil if need (only 1 drop is required). Place sample into the HACH 2100N benchtop turbidimeter. Close door. Let reading stabilize and record onto the sample sheet. For filter #1 we also record the time on the clarifier since the last “flush”, this is taken from the HMI timer. When finished, dump and rinse sample vile with distilled water.

**Optimization Goals**

|  |
| --- |
| **Water Treatment Plant Optimization Goals** |
| **SEDIMENTATION****(for conventional systems)** | **Turbidity Goals** | **Criteria** |
| Settled Water | < 2.0 NTU, 95% of the time. | If average annual raw water turbidity is > 10 NTU. |
| Settled Water | < 1.0 NTU, 95% of the time. | If average annual raw water turbidity is < 10 NTU. |