

# Disinfection By-Product Sampling Routine Flushing Program



## Purpose:

To prevent the collection of disinfection by-product (DBP) residual build up in low demand and low flow areas of the distribution system, it is essential to routinely flush distribution mains via the outlined directional flushing method listed below.

## Location:

Sampling is required at the sites listed below on a quarterly basis per the state defined monitoring schedule.

DBP001 – Maintenance Shop L7J

DBP002 – South Tank H39

DBP003 – Hunters Court M52E

DBP004 – Brome Drive LS32B

Flushing is required in the High, Middle and Low Zones and should be done in a manner that directionally moves water in a north to south manner.

## Scope:

It is important to directionally flush distribution water from high zones; ideally a north to south direction will be achieved where water will be moved from the Fish Creek Treatment Plant effluent towards the sampling points in the southern sector of the distribution system.

## Prerequisites:

Special considerations should be made in the operation of Booster Station III, Alpenglow Pump Station and Yampa Wells Water Treatment Facility (YTF). Alternating the lead/lag designation of these two stations is imperative, as well as ensuring the YTF high service pumps are offline during the flushing procedure, especially in the Winter months, to ensure movement of water from the middle zone into the Christie Tank and subsequently out to South Tank and far southern reaches of the distribution system.

## Procedure:

Starting in the High Zone, flush hydrants in a manner that will increase demand on the Christie Tank and “pull” water towards the Alpenglow Pump Station and South Tank. Continue along Val d’Isere flushing several hydrants working towards Anthony Circle. Ensure the Alpenglow Station is online and clear the Anthony Circle line up to DBP 002.

Subsequently, flushing along the Bear Drive corridor in the middle zone will move water towards the Alpenglow Pump Station and then on to the Hunters Court site (DBP003).

Additional flushing should take place at several locations within the Middle and Low Zones to ensure water from higher flow distribution mains is distributed out to the lower flow branches.

### **Timeframe:**

This process is to be completed monthly in the Winter months (November thru May) and special considerations should be given to completing this in the week prior to collecting distribution DBP compliance samples.

Additional flushing should take place at 2-week intervals that directly targets the distribution DBP sites but may not require as comprehensive flushing practices as outlined in the previous procedure and should be considered the minimum required technique in summer months.

### **Documentation:**

Upon completion of monthly and bi-weekly flushing, distribution system operators are required to log the operation and actions performed in the Hydrant Flushing Log, located on the shared server at: Z:\DBP Flushing Log

The log should be named with the date and saved to the folder each time a flushing routine is completed. Note, it is important to include the pre and post chlorine residuals observed when performing the flushing at each station.