



## FLUSHING PROGRAM PLAN FOR CITY OF DYERSBURG WATER SYSTEM



### I. Goal

The purpose of the flushing program is to provide a safe high quality water supply to the customers of the City of Dyersburg Water System. Debris can enter and accumulate in a water distribution system. Disinfectant residuals can deplete due to low usage and disinfectants may combine with materials in the system to form undesirable byproducts. Each of these situations may be corrected by an adequate flushing program.

### II. Plan of Action

1. A systematic flushing of the entire distribution system will be conducted annually or more often if required to maintain water quality. This will be accomplished by flushing from the sources, such as the treatment plant or storage tanks, downstream to the ends of lines. Individual sites will be flushed as needed based on customer complaints of taste, odor, discolored water, etc. The flushing program will ensure that:
  - a. Dead end and low usage mains are flushed periodically
  - b. Drinking water standards are met
  - c. Sediment and air are removed (flushing should continue until water is clear and no air remains)
  - d. The required free chlorine residual is maintained (lines with a free chlorine residual of 0.8 mg/l or less will be flushed until the free chlorine residual reaches at least 0.8 mg/l)
2. Routine flushing will be performed by the Fire Department personnel. Flushing of individual sites or lines to meet water quality standards, remove sediment and air, or maintain the required free chlorine residual will be performed when customer complaints are received or when water quality deteriorates. The dead end lines will have a chlorine test taken by the Water Plant personnel.
3. Following line repairs, main lines will be flushed to remove air and sediment from the repaired section of line. If disinfection is necessary to due to possible contamination, the line will be flushed to remove the high chlorine content. During flushing, water containing high chlorine concentrations will be flushed on relatively flat ground so as not to contaminate a receiving stream or body of water.
4. The water system has not had a problem with low chlorine. However dead end lines are frequently used to collect routine distribution chlorine samples. If a line is found to have a free chlorine residual less than 0.8 mg/l the line will be flushed until the free chlorine residual is 0.8 mg/l or higher.
5. Flushing will be performed so as to ensure a minimum velocity of 2 fps to adequately scour the interior of the main.

### III. Record Keeping

Records of each flushing will be maintained by the City of Dyersburg Fire Department and Water System. These records will include the following:

- A. Date
- B. Time
- C. Location
- D. Persons responsible
- E. Length of flushing
- F. The free chlorine residual after flushing dead end mains
- G. Other information deemed as useful to the City of Dyersburg Water System