13-3 FIRE HYDRANT INSPECTION, TESTING, AND MAINTENANCE.

13-3.1 Purpose.

The City of Clearlake has interest in both the safety of it's citizens and the orderly development, redevelopment and uses of land within the City. While the City presently has no responsibility for the operation of public water supply systems or compliance with public drinking water rules and regulations, the City has an interest in the ability of public water systems serving the City to provide appropriate fire protection both for the safety of residents and the orderly development of the City. The purpose of this Ordinance is to facilitate and ensure coordination and cooperation between the water systems (public or private) which own and operate fire hydrants, with the City's public safety and land use obligations.

It is the intent and purpose of the City Council, in enacting this section to ensure compliance with established standards and protocols in inspection, testing, maintenance, and marking of fire hydrants throughout the City, and the reporting of such activities to the City. (Ord. #275-2024, S2)

13-3.2 Definitions.

AUTHORITY HAVING JURISDICTION (AHJ) means an organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

CERTIFIED WATER DISTRIBUTION OPERATOR means a person certified by the California State Water Resources Control Board for operation of public water distribution systems.

FIRE FLOW means the flow rate of a water supply, measured at twenty (20) pounds per square inch (1.4 bar) residual pressure, that is available for firefighting.

HYDRANT DEFINITIONS.

1. DRY BARREL HYDRANT (FROSTPROOF HYDRANT) means a type of hydrant with the main control valve below the frost line between the footpiece and the barrel.

2. FIRE HYDRANT means a valved connection on a water supply system having one (1) or more outlets and that is used to supply hose and fire department pumpers with water.

3. FLOW HYDRANT means the hydrant that is used for the flow and flow measurement of water during a flow test.

4. FLUSH HYDRANT (BELOW GROUND HYDRANT) means a type of hydrant that is installed below the ground level that is intended for use in congested urban areas or aircraft movement areas.

5. PRIVATE FIRE HYDRANT means a valved connection on a water supply system having one (1) or more outlets that is used to supply hose and fire department pumpers with water on private property.

6. PUBLIC HYDRANT means a valved connection on a water supply system having one (1) or more outlets that is used to supply hose and fire department pumpers with water.

7. RESIDUAL HYDRANT means the hydrant that is used for measuring static and residual pressures during a flow test.

8. WET BARREL HYDRANT means a type of hydrant that is intended for use where there is no danger of freezing weather and where each outlet is provided with a valve and an outlet.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) means a nonprofit organization that sets standards and codes for fire, electrical and building safety.

RATED CAPACITY means the flow available from a hydrant at the designated residual pressure (rated pressure), either measured or calculated.

RESIDUAL PRESSURE means the pressure that exists in the distribution system, measured at the residual hydrant at the time the flow readings are taken at the flow hydrants.

STATIC PRESSURE means the pressure that exists at a given point under normal distribution system conditions measured at the residual hydrant with no hydrants flowing.

13-3.3 Inspection, Testing, and Maintenance Required.

Inspection, testing, and maintenance of fire hydrants, public and private, throughout the City is hereby required. National Fire Protection Association ("NFPA") 291, Recommended Practice for Water Flow Testing and Marking of Hydrants, as then in effect, shall be the standard for conducting hydrant inspection, testing and reporting. (Ord. #275-2024, S2)

13-3.4 Annual Inspection and Testing Required.

a. ~~Prior to July 1, 2025, each~~Each water district/company providing service in the City of Clearlake shall perform an initial inspection and flow test on each hydrant in the City through which they deliver water to the City in compliance with the NFPA 291 standard, using ~~one (1) of the licensed professionals listed~~the standards included within ~~in~~ this section, or provide the City evidence and verification of a comparable standard.

b. No later than July 1, 2026~~2025~~, each water district/company providing service in the City of Clearlake shall submit a report of the inspection and testing required in subsection (a) of this section to the Lake County Fire Protection District and City of Clearlake. The report shall be in a format approved by the City of Clearlake and contain information regarding the timing, location, findings and corrective actions taken for each inspection and flow test as provided in NFPA 291.

c. After the initial inspection and flow test, and prior to July 1st of the year, each water district/company providing service in the City of Clearlake shall perform the maintenance required by this section annually and the flow testing as provided by NFPA 291 every five (5) years, or as otherwise allowed in this article.

13-3.5 Maintenance, Testing, and Recordkeeping Required.

Each water district/company providing service in the City of Clearlake shall perform maintenance and testing, and maintain records in a form and format acceptable to the City of Clearlake, for each hydrant through which they deliver water in the City as set out below.

a. Annual maintenance shall be conducted by a certified water distribution operator or person with equal or greater qualifications, and shall include at least the following:

1. Ensure hydrant is visible and accessible.

2. Remove caps and inspect threads, gaskets and cap chains.

3. Clean and lubricate threads.

4. Check condition of pentagon operating nut.

5. Locate and exercise the underground control valve (key valve, road box or foot valve).

6. Clean and paint hydrant per NFPA 291 standard.

7. Immediate correction of any deficiency noted.

b. Five (5) year maintenance shall include at least the following:

1. Perform annual maintenance as outlined above using a certified water distribution operator or person with equal or greater qualifications.

2. Perform flow testing in accordance with NFPA 291, Recommended Practices for Fire Flow Testing and Marking of Hydrants.

3. Flow testing must be completed by either:

(a). ~~o~~One (1) of the following licensed professionals on every hydrant at least every five years:

(1~~a~~) C-16 – Fire Protection Contractor.

~~(b) C-36 – Plumbing Contractor.~~

~~(c) C-34 – Pipeline Contractor.~~

(2~~d~~) California State Fire Marshal – License A, Type.

(3~~e~~) California registered civil engineer.

(b). An employee of the water company on every hydrant at least every five years, if:

(1) The employee doing the testing must hold a minimum of a D2 certification from the California Drinking Water Operator's Certification Program.

(2) They are trained by someone knowledgeable in performing fire flow testing, pursuant to NFPA 291.

(3) The company can verify the tests were completed pursuant to NFPA 291 standards.

(4) The test reports are reviewed by an official designated by the City with the credentials to determine the tests validity.

(c). An employee of the water company on a minimum of 10% of the hydrants in each zone of the water system each year, if:

(1) The water company has a calibrated water distribution system model which has been certified by a registered civil engineer.

(2) Results of fire flow testing are compared with predictions from the calibrated distribution system hydraulic model, the model is updated and recalibrated as necessary to achieve a predictive capability target of 10% of field measured flow tests, and a Registered Civil Engineer certifies such predictive model performance.

(3) The water company submits to the City all data from the water model and certification by the registered civil engineer verifying calibration along with their annual reporting of hydrant maintenance and fire flow test data performed during that year.

~~4~~3. Immediately correct any deficiencies noted.

c. *Record Keeping.*

1. Records in a form and format acceptable to the City of Clearlake shall be maintained for all maintenance and testing performed on, and all corrective actions taken on, public fire hydrants. Copies of such records for the previous calendar year shall be delivered to the Fire District and City annually, no later than July 1st.

2. Records in a form and format acceptable to the City of Clearlake shall be maintained by the property owner for all maintenance and testing of private fire hydrants. Copies of such

records for the previous calendar year shall be delivered to the Fire District and City annually, no later than July 1st.

13-3.6 Compliance With Requirements for Water Discharged During Inspections and Flow Testing.

Flow testing constitutes a planned event and shall comply with all applicable discharge requirements set by any jurisdictional agency, including the City and the Regional Water Quality Control Board. Public drinking water contains disinfecting chemicals that may be harmful to certain aquatic species. Best management practices shall be employed to ensure compliance with all discharges to the City storm drainage systems or to natural drainage courses.

13-3.7 Damage to City or Private Property and Public Safety.

The owner of all fire hydrants subject to the inspection and testing requirements of this section shall assume sole liability for all actions taken to comply, including causing damage to public or private property, or causing a violation of downstream permit conditions or receiving water limitations.

In addition, the discharge of large quantities of water can cause temporary local flooding and present traffic hazards. The fire hydrant owner shall employ proper traffic control measures to protect vehicles, pedestrians and other users of all public and private property impacted by inspection and testing operations.

13-3.8 Violation – Penalty.

Violation of this section is a public nuisance and misdemeanor. Whenever an act is made unlawful by this section, or the doing of an act is required by this section, the violation shall be punished by a fine not exceeding one thousand ($1,000) dollars or imprisonment for a term not exceeding six (6) months, or by both such fine and imprisonment; provided, nevertheless, that any such aforesaid violation or offense may be deemed an infraction as defined by California Penal Code Section 19C and charged as such in the discretion and at the election of the City

prosecuting attorney, in which event the punishment therefor shall not be imprisonment, but a fine not to exceed the amounts specified by California Government Code Section 36900 as then in effect.