

BOARD OF SUPERVISORS, MENDOCINO COUNTY, STATE OF CALIFORNIA

ORDINANCE NO. \_\_\_\_\_

AN ORDINANCE TO REGULATE THE SALE AND TRANSPORT OF GROUNDWATER FROM PRIVATE WELLS

FINAL DRAFT 2022.07.06 (REVISED)

The purpose of this Ordinance is to:

- Protect the county's groundwater resources,
- Avoid adverse effects to source wells and neighboring well owners, and
- Limit environmental impacts of hauling water from private wells

Whereas drought and increased aridity are ongoing issues in Mendocino County; and

Whereas people are concerned about wells going dry and aquifers being excessively tapped; and

Whereas these concerns are exacerbated by extraction for illegal commercial cannabis operations; and

Whereas unregulated water hauling causes damage to roads and bridges, changes the character of residential neighborhoods, and endangers children, bicyclists, equestrians, and pedestrians.

NOW THEREFORE, the Board of Supervisors of the Mendocino County hereby ordains as follows:

**All water sellers must comply with the requirements of this ordinance by [EFFECTIVE DATE].**

**SECTION ONE: Definitions**

- A. ADVERSE EFFECT shall mean a measured or calculated drop in the maximum available water column at the source well or at a hydrologically contiguous well of more than 10 percent.
- B. COUNTY HYDROLOGIST means a person who is hired or retained by the County, with responsibilities as set forth in the provisions of this ordinance.
- C. DRAWDOWN shall mean the difference between the water level during pumping and the static water level.
- D. FLOW RATE shall mean the instantaneous rate at which water is extracted from a well, typically measured in gallons-per-minute.
- E. HYDROLOGIC WELL TEST shall mean a methodology where a well is flowed at a constant rate for an extended period of time while the water level in the well is monitored and recorded at frequent intervals, for the purpose of determining aquifer transmissivity, storage coefficient, well efficiency, and boundary effects.

- F. MAXIMUM MONTHLY VOLUME is the quantity of water that the seller may produce from the source well in a calendar month. The maximum monthly volume is established by the County hydrologist by determining a production rate that will not result in an adverse impact.
- G. MONITORING WELL shall mean a well drilled into an aquifer that is hydraulically connected to the source well and used to determine the water level at a specific point within the aquifer. A monitoring well includes wells specifically drilled as monitoring wells and any other well that is hydrologically connected and has not been pumped for a period of at least 24 hours.
- H. RADIUS OF INFLUENCE is the distance from the well to a point where the drawdown from the well is 0.01 feet, after 180 days of continuous production.
- I. STATIC WATER LEVEL shall mean the distance measured from the top of the casing or other identified reference point, to the water level in the well after (A) the well has not produced for a period of at least 24 hours, or (B) for wells equipped with continuous water level measurement devices, the water level change is less than 0.2 feet per hour.
- J. STORAGE COEFFICIENT shall mean the cubic feet of water that one square-foot of aquifer releases per one foot of drawdown.
- K. SOURCE WELL shall mean the well or wells proposed for use by the water seller.
- L. SPECIFIC CAPACITY shall mean the flow rate of a well divided by the drawdown of the well.
- M. TRANSMISSIVITY shall mean the rate at which ground water can move through geologic material under a given hydraulic gradient. Transmissivity is reported in units of square-feet per day (ft<sup>2</sup>/day)
- N. WATER SELLER shall mean the legal owner(s) of a private well who sells water from the well to another party.
- O. WELL EFFICIENCY shall mean the ratio between actual specific capacity of the well and theoretical specific capacity.

## **SECTION TWO: Water Selling Requirements**

- A. Any person proposing to become a water seller under this ordinance must obtain:
  - a. A Mendocino County Minor Use Permit.
  - b. A Mendocino County Business License, which must be renewed annually.
- B. An applicant for a Minor Use Permit and Business License under this ordinance shall submit the following:
  - a. An application for a Minor Use Permit filed with the Mendocino County Department of Planning and Building Services pursuant to Section 20.196 of the Mendocino County code.
  - b. The well permit for each proposed source well.
  - c. A well completion report for each proposed source well.

- d. The well completion reports for each well within the radius of influence, if available.
- e. For each source well, the proposed:
  - i. average flow rate in gallons per minute.
  - ii. hours of operation.
  - iii. total monthly volume produced for each month of the year in gallons.
- f. The results of a hydrologic well test on the source well(s) which shall include aquifer transmissivity, storage coefficient, and well efficiency. Specific requirements for the hydrologic well test and analysis are listed in Attachment I.
- g. The calculated radius of influence using the information determined from the hydrologic well test.
- h. Based on available information, a scale map of all wells within the radius of influence of the source well and the distance between each well and the source well.

C. Static Water Level

- a. An initial static water level of each source well shall be measured and recorded no more than one week before the first pumping of the season. If a source well is operated year-round, the initial static water level shall be measured during the month of April, unless otherwise directed by the County hydrologist.
- b. Static water level in the source well shall be measured and recorded once per month during the pumping season or more frequently depending on drought severity and as determined by the County hydrologist. **The measured static water level may be used by the County hydrologist to determine if an adverse impact has occurred.**
- c. If requested by the owner of a well on a neighboring property, the water seller shall measure the static water level of the neighboring well and submit the measurement to the well owner and the County. The measured static water level may be used by the County hydrologist to determine if an adverse impact has occurred.
- d. Static water level measurements shall have an uncertainty of not more than  $\pm 0.1$  feet.

D. Maximum monthly volume

The water seller shall not exceed the maximum monthly volume in any calendar month. The ~~Water Agency~~ **County** hydrologist will establish an initial maximum monthly volume based on the initial static water level measurement required in Section 2.C.a of this ordinance, and the aquifer and well properties determined from the hydrologic well test. The County hydrologist may revise the maximum monthly volume based on subsequent static water level measurements as required in Section 2.C.b. and 2.C.c.

E. Metering

The water seller shall install a volume metering device for the purpose of determining the quantity of water pumped from the well. The meter must meet the following requirements:

- a. The meter shall have a mechanical non-resettable totalizer.
- b. The meter shall have an uncertainty of less than  $\pm 2\%$  of the reading.
- c. The meter shall be installed in accordance with manufacturer specifications and recommendations.
- d. There shall be no bypasses around the meter.
- e. The meter shall be located to provide access to the County during normal business hours.

F. Reporting

The well operator shall submit a monthly report to the County hydrologist which must include:

- a. The most recent static water level and the date on which it was measured.
- b. The meter reading, in gallons, on the first of the previous month and the first of the current month.
- c. The total volume of water, in gallons, for the current month.

G. Notwithstanding subsection (H) below, the water seller shall keep a tracking log with the following information:

- a. Name and contact information of the person and business, if applicable, that purchased the water.
- b. Date of the sale.
- c. The quantity of water sold.
- d. The license plate number of the vehicle used to haul the water.
- e. Address of residence to which the water will be delivered.
- f. Signed confirmation of the above information by both the water seller and the water hauler, with one copy to be retained by the seller, one by the hauler, and one submitted to the Water Agency on a regular schedule.
- g. Retention of the records for twelve months from the date of sale.
- h. Immediately provide records to law enforcement or Water Agency Department upon request.

- H. The water seller is only required to keep records of the date of sale, the water quantity sold, and the name of the purchaser of the water, for a period of twelve months, and provide records to law enforcement or water agency department, upon request, if the water is:
  - a. Sold to a state or local government bulk purchaser.
  - b. Sold to Contractors licensed by the construction Contractors Board.
  - c. Sold for livestock watering purposes.

### **SECTION THREE: Water Transporting Requirements**

- A. No person shall transport water to a commercial cannabis operation that does not have a state license or a state provisional license and either a county permit or an application in active review by the county cannabis department.
- B. No person shall transport water from a water supplier to a separate parcel without first obtaining a Mendocino County Business License, to be renewed annually.
- C. Any person transporting water from a water supplier shall keep a tracking log of all purchases and deliveries that shall include:
  - a. Date, location, volume, of the water purchase.
  - b. Date, location, volume, of each water delivery.
  - c. The name and contact information of the person to whom the water will be delivered and the date of delivery.
  - d. The intended use of the water.
  - e. Retention of the above records for twelve months after the water is delivered to the location of use.
  - f. Immediately provide records to law enforcement or Water Agency Department upon request.
- D. All water hauling trucks shall be required to have the following on the outside of their trucks in letters of not less than 2" in height and 1" wide, in a color contrasting to the body color:
  - a. The name of the collector, transporter or company operating the vehicle.
  - b. Business license number.
  - c. Number of vehicles, if more than one (1) is operated by the collector, transporter, or company.
- E. No person shall transport water after 10 pm or before 5 am unless such transport is for road work or logging operations.

- F. Transport of potable water is subject to this ordinance as well as Chapter 9.24 titled the Mendocino County Water Haulers' Ordinance as well as state regulations regarding the transport of potable water.
- G. Any person transporting water for the purpose of emergency fire suppression or other public safety emergencies is exempt from all water transporting requirements of this section.

**SECTION FOUR: Restrictions on Water Sold and Transported for Domestic/Residential Use during a Drought Emergency as declared by the Board of Supervisors**

In order to preserve water availability for the essential needs of health and safety during a declared drought emergency, persons may sell or transport water from a private well if:

- A. The residence to which the water is transported is occupied.
- B. The amount of water delivered does not exceed 55 gallons per person per day.
- C. The residence to which the water is transported is not served by a municipal or privately owned community water provider.

**SECTION FIVE: Lead Agency and Enforcement**

- A. It is the intent of this ordinance that the County Water Agency shall be the lead agency for implementation of this ordinance. Until such time when the County Water Agency is established, the County Department of Environmental Health or other appropriate County Department(s) shall:
  - a. Monitor tracking logs.
  - b. Monitor well use logs.
  - c. Initiate enforcement action.
  - d. Retain a certified hydrologist qualified to:
    - i. review and approve, reject, or require additional tests for hydrological well tests submitted by applicants.
    - ii. make adjustments to pumping rates as needed.
  - e. Coordinate with Environmental Health, Code enforcement, and the Sheriff's office regarding enforcement.
- B. As soon as possible after the effective date of this ordinance, the County shall provide notice of the requirements described herein to all potentially affected and interested parties.
- C. Violation of this ordinance can result in loss of license, a Class A misdemeanor, and a maximum fine of \$25,000.

**SECTION SIX: Citizen Enforcement**

Any citizen or organization may commence a civil action on his/her/their behalf against any person and/or any governmental instrumentality or agency of Mendocino County ~~who are~~ alleged to be in violation of any part of this Ordinance, including failure to enforce violations of the Ordinance.

## ATTACHMENT I – REQUIREMENTS FOR THE HYDROLOGIC WELL TEST AND ANALYSIS

### A. The hydrologic well test shall:

1. Be conducted or approved by a California licensed professional geologist, a certified engineering geologist, or a certified hydrogeologist with expertise in hydrogeology. Such individual will be hired and paid for by the source well owner.
2. Not commence until the static water level has been measured.
3. Consist of an 8- hour to 72-hour flowing period, based on geologic information from the well completion report and as recommended by the applicant's consultant.
4. Include monitoring of the well's recovery for a period of not less than 24 hours or until the water level change is less than 0.2 feet per hour.
5. Hold the flow rate to within  $\pm 10\%$  of the mean flow rate for the entire flowing period.
6. Include water level data from at least one monitoring well at a location recommended by the applicant's consultant, for the duration of the flowing period and recovery.
7. Include measurements of water levels and flow rates from the source well taken at a rate of at least 10 per log-cycle or once every 10 minutes, whichever is more frequent.
8. Include measurements of water levels taken from the monitoring well(s) taken at a rate of at least 5 per log-cycle or once every 30 minutes, whichever is more frequent.
9. Utilize water level measurement equipment with an uncertainty of no more than  $\pm 0.1$  foot.
10. Utilize flow measurement equipment that has an uncertainty of no more than  $\pm 3$  percent of flow rate.

### B. The hydrologic well test report shall include:

1. All data measured during the test (in a .csv, Excel, text, or other format approved by the County hydrologist).
2. A description of how the test was run including the equipment used and any problems encountered.
3. Graphical representation of the drawdown, recovery, and monitoring well data:
  - a. Drawdown and monitoring well data shall be presented as drawdown vs. the logarithm (base 10) of time.
  - b. Recovery data shall be presented as drawdown vs. the logarithm (base 10) of the time ratio.



- c. The identification of the straight-line portion of the drawdown and recovery graphs used for the determination of transmissivity.
  4. The calculated values of transmissivity, storage coefficient, and well efficiency, including a detailed description of the calculations and any assumptions made.
  5. The calculated radius of influence of the source well as described in Section 2.B.g
  6. The maximum flow rate of the source well that will avoid adverse effects impacts to any wells within the radius of influence, including the source well.
- C. After reviewing the hydrologic well test report, the County hydrologist may approve the test report, require additional testing and analysis, or reject the hydrologic well test report if it does not meet the requirements of this attachment.

## **ADDENDUM – SUPPORTING DOCUMENT REGARDING FUNDING**

Suggested funding for the implementation and enforcement of this Ordinance may could come from the following sources:

- A. Applicant fees to cover the time required to process applications, monitor and reconcile tracking logs of both haulers and sellers, and to periodically monitor and adjust static well water levels;
- B. Fines levied for violations of the Ordinance;
- C. The County General Fund, or other sources designated for funding the new County Water Agency;
- D. State (and federal?) grants available for characterizing, evaluating, monitoring and protecting groundwater resources;
- E. Other? State or federal grants designated to protect state-recognized critical habitat such as wetlands (Little lake Valley); Valley Oak woodlands (Round Valley), salmon and steelhead migration and rearing habitats where groundwater and surface water influence each other;
- F. ~~“Measure W”~~ A sales tax initiative passed by the voters that is specifically designated to support... a county water agency and the necessary staff needed to carry out the responsibilities set forth in this ordinance.