

Chapter 33A

GROUNDWATER MANAGEMENT

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33A-1 Legislative intent.

- a. The Board finds that the protection of the groundwater resource for beneficial use within the County is of major concern to the residents of the county for the protection of their health, welfare and safety. The Board further declares that the beneficial use and maintenance of groundwater and protection of recharge zones is of critical importance to the economy and environment of the County.
- b. The Board intends to ensure the continued sustainability of groundwater quantity and quality within the county.
- c. The Board intends to protect groundwater quality and prevent land subsidence.
- d. The Board does not hereby intend to regulate, outside of Chapter 33, the use of groundwater; unless established Basin Management Objectives are exceeded. Absent emergency circumstances, as determined by the Board of Supervisors, the Board shall not consider changing any established basin management objective until one (1) year has elapsed from the date of the establishment or Board approved change to such Basin Management Objective.
- e. It is essential for information gathering and management purposes that the County maintain a monitoring program addressing groundwater elevations, groundwater quality and land subsidence.
- f. In adopting the groundwater management ordinance codified in this chapter, the Board does not intend to

limit other means of managing groundwater within the county authorized elsewhere in statute or ordinance, and intends to work cooperatively with local entities and the general public to further develop and implement joint groundwater management practices.

g. The lack of groundwater management may have the following negative impacts, including, but not limited to:

- 1. Lowering of groundwater levels leading to increased energy consumption, a potential decrease in stream flows, the increased cost of deepening existing wells and the prospect that new wells shall need to be deeper and more costly than would otherwise be required;
- 2. Damage to public roads, bridges, subterranean infrastructure, canals and other structures caused by land subsidence at substantial cost to the public;
- 3. Depleting surface and subsurface flows leading to the potential loss of wildlife and critical terrestrial and wetland habitat;
- 4. Degradation of groundwater quality;
- 5. A degradation of property values and injury to agricultural lands in Butte County.

h. It is the purpose and intent of this chapter to establish and effective policy concerning groundwater that will assure that the overall economy and environment of the county is protected. Through the adoption of this Chapter, the Board of Supervisors seeks to protect the health, safety and welfare of County residents and the general public.

i. The Board does not intend, in adopting this chapter, to determine whether any groundwater in storage above established Basin Management Objectives is surplus groundwater, to define surplus groundwater, or to impose fees, assessments, charges or taxes upon County residents and/or business owners. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-2 Definitions.

- a. "Aquifer" means a geologic formation that may store, transmit and yield significant quantities of groundwater to wells and springs.
- b. "Basin Management Objectives (BMO)" means groundwater elevations, groundwater quality and land subsidence criteria adopted by the Board of Supervisors for the management of the Butte County groundwater resource under the provisions of this chapter.
- c. "Board" means the Board of Supervisors of Butte County.
- d. "Commission" means the Butte County Water Commission.
- e. "County" means County of Butte.

f. "District" means any purveyor of water wholly or partly within the boundaries of the county that provides water for agricultural, domestic, municipal or industrial use.

g. "Department" means the Butte County Department of Water and Resource Conservation.

h. "Extensometer" means an instrument for measuring land subsidence.

i. "Groundwater" means all water beneath the surface of the earth below the zone of saturation, but does not include water which flows in known and definite subsurface channels, as set forth in the case of *Los Angeles v. Pomeroy* (1899) 124 Cal. 597.

j. "Groundwater Management Plan" means a plan prepared pursuant to the California Groundwater Management Act (commencing with Water Code Section 10750 et seq.).

k. "Land Subsidence" means the permanent lowering of the ground surface caused by the inelastic consolidation of clay beds in the aquifer system.

l. "Recharge" means flow to groundwater storage from precipitation, irrigation, infiltration from streams, spreading basins and other sources of water.

m. "Technical Advisory Committee" means the seven (7) person committee nominated by the Water Commission and appointed by the Board as defined under Chapter 33.

n. "Water Advisory Committee" (WAC) means an advisory body appointed by the Board. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-3 Actions.

a. Upon approval by the Board, Basin Management Objectives shall be used to establish criteria for:

1. Groundwater elevations;
2. Groundwater quality; and
3. Land subsidence.

b. Compliance with the BMO shall be determined by evaluation of data collected from the groundwater level, groundwater quality and land subsidence monitoring networks established within each sub-inventory unit by the local stakeholders. Evaluation of these data shall be the only basis for determining compliance with the BMO. It is the intent that the BMO levels be chosen to assure that the overall economy and environment of each sub-inventory unit within County is protected. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-4 Water Advisory Committee.

a. The Water Advisory Committee (WAC) shall be appointed by the Board. The WAC shall be an advisory

committee comprised of area-specific members, with one member appointed from each defined sub-inventory unit within the Sacramento Valley Groundwater Basin portion of the county, and one each from the Foothill and Mountain inventory units, as defined in the 2001 Butte County Water Inventory/Analysis report. Additional at-large members shall be appointed, one from each incorporated municipality in the County: Chico, Oroville, Paradise, Gridley and Biggs, one from the agricultural community, one from the environmental community and one from each organized watershed group in the county. The operation of the Water Advisory Committee shall be governed by by-laws approved by the Board of Supervisors.

b. Sub-inventory Units.

1. Vina;
2. M&T;
3. Llano Seco;
4. Durham/Dayton;
5. Western Canal;
6. Pentz;
7. Esquon;
8. Cherokee;
9. Richvale;
10. Thermalito;
11. Biggs-West Gridley;
12. Butte Sink;
13. Butte;
14. North Yuba;
15. Angel Slough;
16. Chico Urban Area.

c. The local representatives of each sub-inventory unit shall be solely responsible for the development of the Basin Management Objective for their sub-inventory unit.

d. Sub-inventory units may be added, modified or changed as deemed necessary by the stakeholders within the sub-inventory unit. All modifications and changes shall be reviewed by the WAC and approved by the Board. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-5 Appointments.

a. The Board shall consider all nominations for appointment to the Water Advisory Committee that meet the following criteria:

1. Candidates who reside, own property or have their principle place of business within the sub-inventory unit or entity which they would represent and are willing to serve in a voluntary capacity; and
2. Candidates nominated by the citizens of the sub-inventory unit.

b. Members of the WAC shall serve a four (4) year term. Terms shall be staggered by lot for two (2) years at

the onset and open to reappointment for consecutive terms. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-6 Basin management objectives.

a. Determination of the BMO. The process instituting the BMO within each sub-inventory unit shall be established within one (1) year following approval of the ordinance codified in this chapter and incorporated into this chapter by reference. The individual sub-inventory unit BMO shall be initially established and re-established annually through input from the sub-inventory unit stakeholders. The individual BMO shall be approved by the Board at the first regular meeting of the Board in April of each year. The Board's approval of the BMO shall be based on:

1. Local sub-inventory unit stakeholder input;
2. The recommendation of the Water Advisory Committee and the Water Commission; and
3. Monitoring data and existing conditions of the aquifer system.

b. It is the intent of this chapter that there be one (1) countywide adaptive management plan, incorporating all specific BMO determinations for the individual sub-inventory units.

c. It is the intent of the Board in adopting this chapter that groundwater management practices based on the established BMO criteria for one (1) sub-inventory unit shall not result in exceeding the established BMO criteria in any other sub-inventory unit.

d. In the event that sub-inventory unit stakeholders do not initially establish or re-establish BMO criteria for their sub-inventory unit, the Water Advisory Committee shall establish BMO criteria for the sub-inventory unit and submit it to the Water Commission and the Board of Supervisors for approval. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-7 Monitoring BMO compliance.

a. Monitoring programs designed to detect changes to groundwater elevations, groundwater quality and land subsidence are the key to proper assignment of, and compliance with, the BMO. The monitoring programs shall measure select wells, identified by the local sub-inventory unit stakeholders, to determine changes in groundwater elevation and changes in groundwater quality and land subsidence. The County shall make available all groundwater monitoring data through the Department website in a timely manner. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-8 Monitoring networks.

a. The monitoring networks used in the development of, and compliance with, the BMO may include as many

of the following as are feasible: selected domestic and irrigation wells from water districts, private owners, municipal and industrial water suppliers and dedicated monitoring wells. Individual sub-inventory unit stakeholders may monitor additional wells for compliance with the BMO. Participation in monitoring activities by private landowners shall be on a voluntary basis.

b. Additional monitoring wells may be installed and monitored by the local stakeholders for BMO compliance. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-9 Monitoring frequency.

a. Monitoring Frequency for Groundwater Elevations. At a minimum, groundwater elevations shall be monitored four (4) times during the year: one (1) measurement prior to the irrigation season in March, two (2) measurements during peak groundwater use in July and August, and one (1) measurement following irrigation season in October. All monitoring data collected by stakeholders shall be submitted to the Department within thirty (30) days of collection.

1. Monitoring Frequency for Groundwater Quality. The frequency of groundwater quality monitoring shall be at a minimum of once a year during peak groundwater use (July or August). The following minimum groundwater quality measurements shall be taken:

- A. Groundwater temperature;
- B. Groundwater pH; and
- C. Groundwater electrical conductivity.

2. Within each sub-inventory unit, increased frequency and location of groundwater quality monitoring and monitoring constituents may be determined and conducted by the local stakeholders. All monitoring data collected by stakeholders shall be submitted to the Department within thirty (30) days of collection.

b. Monitoring Frequency for Land Subsidence. Land subsidence monitoring shall be conducted on a continuous basis through the use of extensometers. Land subsidence may also be monitored by resurveying existing benchmarks in the sub-inventory unit area at a frequency determined by the local stakeholders. All monitoring data collected by stakeholders shall be submitted to the Department within thirty (30) days of collection. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-10 Changes in monitoring.

a. Changes in Monitoring Frequency. If evaluation of the groundwater elevation, groundwater quality or land subsidence data indicate a need for greater monitoring frequency, the local stakeholders may make changes to the monitoring schedule once per calendar year. Such changes,

if made, shall be submitted to the Department by April 1 of each year.

b. Changes in Monitoring Network. If evaluation of the groundwater elevation, groundwater quality standards or land subsidence criteria data indicates a need for a greater number of monitoring wells or survey monuments, the local stakeholders may make changes to their monitoring network once per calendar year. Such changes, if made, shall be submitted to the Department by April 1 of each year. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-11 Monitoring protocol.

a. All data shall be collected and recorded through methods generally accepted in the applicable scientific field. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-12 Review of technical data.

a. Standard methods for review and analysis of the collected data shall be established by the Water Advisory Committee. Such data shall be reviewed by the Technical Advisory Committee and reported to the Water Commission and the Board annually pursuant to established protocol.

b. During the irrigation season, the Technical Advisory Committee shall review and analyze data for compliance with the current BMO. During the non-irrigation season, the focus shall be on review of BMO compliance for the previous irrigation season and development of new BMO criteria for the following year, if necessary. New BMO criteria shall be developed by sub-inventory unit stakeholders and presented at the first regular meeting of the Board in April of each year.

1. The Department shall establish methods for data collection, storage and dissemination. Methods for collecting groundwater elevations, groundwater quality and land subsidence shall follow established quality assurance and quality control guidelines.

2. The Department shall disseminate the monitoring data through public presentations and through Internet access on the Department website. At a minimum, the Department shall publicly present findings from the monitoring program on an annual basis to the Board of Supervisors. (Ord. No. 3869, § 1 (part), 2-10-04)

33A-13 Action by Technical Advisory Committee.

a. All BMO noncompliance issues shall be resolved through a collaborative process at the sub-inventory unit level, if at all possible. However, in the event that an area of BMO noncompliance is identified to the Department, the Technical Advisory Committee shall investigate and

report to the Water Advisory Committee and Water Commission the areal extent and magnitude of the noncompliance. This information shall also be released to the public. This report shall be made in a timely manner not to exceed fourteen (14) days from the time that BMO noncompliance was identified. The Technical Advisory Committee shall not investigate and report any alleged or identified noncompliance in any area until Basin Management Objectives have been approved by the Board of Supervisors in all sub-inventory units within the area allegedly affected.

b. The Technical Advisory Committee shall then collect all available pertinent hydrologic data and investigate possible causes for the BMO noncompliance. The Technical Advisory Committee shall recommend actions to resolve the BMO noncompliance to the Water Advisory Committee, Water Commission and the Department. The initial Technical Advisory Committee recommendations shall be made in a timely manner not to exceed thirty (30) days from the time at which BMO noncompliance was reported. The Technical Advisory Committee shall first make recommendations that focus on resolving the BMO noncompliance through negotiations with all parties in the impacted/impacting area(s). (Ord. No. 3869, § 1 (part), 2-10-04)

33A-14 Action by Water Advisory Committee.

a. If the noncompliance cannot be resolved through a collaborative process at the sub-inventory unit level or through the review and recommendations of the Technical Advisory Committee and if negotiations with parties in the impacted area do not result in a timely and positive action to re-establish BMO compliance within five (5) days, the Water Advisory Committee may recommend a plan to the Water Commission to modify, reduce or terminate groundwater extraction in the impacted/impacting area(s). This action shall only be taken on the recommendation of the Water Advisory Committee after a thorough technical review of the data. (Ord. No. 3869, § 1 (part), 2-10-04)