

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

RESOLUTION R5-2017-0032

AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR
THE TULARE LAKE BASIN TO
REMOVE THE MUNICIPAL AND DOMESTIC SUPPLY (MUN) AND AGRICULTURAL SUPPLY
(AGR) BENEFICIAL USES FROM GROUNDWATER WITHIN A DESIGNATED HORIZONTAL
AND VERTICAL PORTION OF THE TULARE LAKE BED

WHEREAS, the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) finds that:

1. The Central Valley Water Board adopted the Water Quality Control Plan for the Tulare Lake Basin (Tulare Lake Basin Plan) in 1975 and has amended it as necessary.
2. The Central Valley Water Board has incorporated State Water Board Resolution No. 88-63, the Sources of Drinking Water Policy (*Sources of Drinking Water Policy*), into the Tulare Lake Basin Plan, and has designated all surface and ground water bodies in the Tulare Lake Basin as supporting the MUN beneficial use unless a particular water body is specifically designated as not supporting the MUN beneficial use in the Tulare Lake Basin Plan.
3. The *Sources of Drinking Water Policy* identifies exceptions to the MUN beneficial use that can apply to certain water bodies, including an exception that applies to water bodies where the total dissolved solids (TDS) exceeds 3,000 milligrams per liter (mg/L) (5,000 microsiemens per centimeter ($\mu\text{S}/\text{cm}$) as electrical conductivity (EC), provided that the water body is not expected to supply a public water system.
4. The Board may only exempt waterbodies in the Tulare Lake Basin from MUN beneficial use designations by amending the Tulare Lake Basin Plan.
5. The Tulare Lake Basin Plan also states that, unless otherwise designated by the Central Valley Water Board, "all ground waters in the region are considered suitable or potentially suitable, at a minimum, for agricultural supply (AGR)...."
6. The AGR beneficial use includes the use of groundwater for irrigation, livestock watering, and support of vegetation for range grazing.
7. The Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) initiative conducted a review of literature related to salinity impacts on both irrigation and stock watering, and identified guidance from the Canadian Council of Ministers for the Environment (CCME) that recommend a maximum EC limit of 5,000 $\mu\text{S}/\text{cm}$ for crop irrigation and all classes of livestock.
8. Characterization studies were conducted in the Tulare Lake Bed area and identified basin-wide groundwater flow to the center of the lake bed, poor quality groundwater in a shallow saline aquifer above the Corcoran Clay, and better quality groundwater in a deep aquifer located below the clay units.

9. The characterization studies also identified a vertically- and horizontally-delineated portion of the historic Tulare Lake Bed where groundwater quality exceeds both the *Sources of Drinking Water Policy* exception 1a criteria (EC is 5,000 $\mu\text{S}/\text{cm}$ or greater) and the maximum salinity concentration identified to support AGR beneficial uses. The vertical extent of the delineated portion of the groundwater basin is bounded by laterally extensive clay layers (A Clay, C Clay and Corcoran Clay) that act as barriers to vertical groundwater movement from within the identified zone.
10. Following identification of the proposed de-designation zone, a thorough well reconnaissance effort was performed both within and outside of the proposed project boundaries to identify active and abandoned or destroyed water supply wells, including those utilized for municipal and domestic supply.
11. Zone-of-capture analyses were conducted to determine if municipal or domestic wells in areas outside of the proposed MUN de-designation boundary could extract groundwater from within the proposed de-designation area. Results of the analyses indicate that wells near the horizontal boundary will not draw water from within the proposed de-designation zone nor influence groundwater flow direction.
12. The characterization studies and the zone-of-capture analyses confirmed that no active wells in the fringe areas will draw water from within the proposed de-designation zone nor be impacted by groundwater from within the proposed de-designation zone.
13. The Central Valley Water Board has prepared a draft amendment which will remove the MUN and AGR beneficial uses from groundwater within a delineated horizontal and vertical portion of the Tulare Lake Bed (the “proposed Amendment”).
14. The proposed Amendment will revise Chapter 2 (Existing and Potential Beneficial Uses), Table II-2 and will add a new Table II-3. The new Table II-3 will identify Tulare Lake Basin groundwater sub-basins where the Central Valley Water Board has de-designated the MUN beneficial use consistent with the *Sources of Drinking Water Policy* and/or has removed the AGR beneficial use.
15. The proposed Amendment will revise Chapter 3 (Water Quality Objectives, Water Quality Objectives for Groundwaters) to reference exceptions to applicable water quality objectives in the new Table II-3.
16. State Water Resources Control Board Resolution 68-16 (*Statement of Policy with Respect to Maintaining High Quality of Waters in California*, referred to hereafter as the *State Anti-Degradation Policy*) generally prohibits the Central Valley Water Board from authorizing activities that will result in the degradation of high-quality waters unless it has been shown that:
 - The degradation will not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives;
 - The degradation will not unreasonably affect present and anticipated future beneficial uses;
 - The discharger will employ Best Practicable Treatment or Control (BPTC) to minimize degradation; and

- The degradation is consistent with the maximum benefit to the people of the state.

The proposed Amendment would remove the MUN beneficial use from the delineated portion of the aquifer consistent with the *Sources of Drinking Water Policy*. Studies performed in support of the proposed Amendment demonstrate that the portion of the aquifer to be de-designated does not serve as either a MUN or AGR source, and is not expected to in the future; the proposed Amendment will therefore not unreasonably affect present and anticipated future beneficial uses. Following the adoption of the proposed Amendment, dischargers will still be required to employ BPTC to limit the degradation of waters that are determined to be high-quality waters for any remaining beneficial uses, or of waters where beneficial uses will remain unchanged, consistent with the *State Anti-Degradation Policy*. Lastly, the economic analysis demonstrates that the de-designation of the MUN and AGR beneficial uses inheres to the maximum benefit of the people of the state because the costs associated with requiring compliance with permit limitations derived for the protection of the MUN and AGR beneficial uses, which would be required if the proposed Amendment were not adopted, would impose a high economic cost on both dischargers and communities without providing any significant benefit to water quality or to water users. The Central Valley Water Board finds that the proposed Amendment is consistent with the *State Anti-Degradation Policy*.

17. In compliance with Water Code section 106.3, it is the policy of the State of California that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. The proposed Amendment does not lessen water quality protections in any portion of the basin that is currently, or is expected to, serve as a domestic or municipal water source. The proposed Amendment is consistent with Water Code section 106.3.
18. The proposed Amendment justifies the de-designation of the MUN beneficial use based on an existing criterion established by the Sources of Drinking Water Policy. The proposed Amendment justifies the de-designation of AGR beneficial use based on a review of peer-reviewed scientific and technical literature that concludes that existing groundwater quality renders the groundwater unsuitable for AGR uses. Health and Safety Code section 57004 does not require that any portions of the proposed Basin Plan Amendment be subject to peer review because no portion of the proposed Basin Plan Amendment contains new science; all of the scientific and technical conclusions that inform the proposed Basin Plan Amendment are based on existing regulatory criteria and peer-reviewed literature.
19. The regulatory action meets the “necessity” standard of the Administrative Procedures Act, Government Code, section 11353, subdivision (b).
20. The Central Valley Water Board is the Lead Agency under the California Environmental Quality Act (CEQA)(Pub. Resources Code, § 21000 et seq.) and is responsible for evaluating potentially significant environmental impacts that may occur as a result of the proposed Amendment. The Secretary of Resources has determined that the Board’s Basin Planning Process qualifies as a certified regulatory program pursuant to Public Resources Code section 21080.5 and California Code of Regulations, title 14, section 15251(g). This determination means that the Board may prepare Substitute Environmental Documentation, which includes the Staff Report and an Environmental Checklist, instead of preparing an environmental impact report. The Substitute Environmental Documentation

satisfies the requirements of State Water Board's regulations for the implementation of CEQA for exempt regulatory programs. (Cal. Code Regs., tit. 23, §§ 3775 et seq.)

21. Central Valley Water Board staff conducted a CEQA scoping meeting in the City of Corcoran on 14 April 2015 to discuss and solicit comments from the public regarding both the appropriate application of the MUN and AGR beneficial uses and level of protection in ground waters.
22. The Central Valley Water Board staff developed and evaluated alternatives for the proposed Amendment with stakeholder input, which was provided during the public meeting held on 14 April 2015 and at a public workshop held 17 August 2016.
23. Central Valley Water Board staff has prepared a draft Amendment and a Staff Report dated December 2016. The Staff Report included a description of the proposed Amendment and analysis of reasonable alternatives to the proposed Amendment. The Staff Report included an analysis of the reasonably foreseeable environmental impacts of the methods of compliance and an analysis of the reasonably foreseeable alternative methods of compliance with the proposed Amendment.
24. Central Valley Water Board staff completed an Environmental Checklist that concluded that the proposed Amendment does not have the potential to significantly impact the environment. Because the proposed Amendment does not have the potential to significantly impact the environment, no mitigation measures are proposed.
25. Central Valley Water Board staff has circulated a Notice of Public Hearing/Notice of Filing, a written Staff Report, an Environmental Checklist, and the proposed Amendment to interested individuals and public agencies, including persons having special expertise with regard to the environmental affects potentially involved with the proposed Amendment, for review and comment in accordance with state environmental regulations. (Cal. Code Regs., tit. 23, section 3775.)
26. The Central Valley Water Board received public comments on the Staff Report, an Environmental Checklist, and the proposed Amendment from 9 January through 23 February 2017. Notice of the public hearing was sent to all interested persons and published in accordance with Water Code section 13244.
27. Based on the record as a whole, including the Staff Report, an Environmental Checklist, the proposed Amendment, and public comments received, the Central Valley Water Board concurs with staff's conclusion that no actions are expected to cause a potentially significant impact to the environment as a result of the adoption of the proposed Amendment. The Central Valley Water Board finds that the record as a whole and the procedures followed by staff comply with applicable CEQA requirements. (Cal. Code Regs., tit. 23, § 3775 et seq., Pub. Res. Code §§ 21080.5, 21083.9, and 21159, Cal. Code Regs., tit. 14, § 15250 et seq.)
28. The proposed Amendment must be approved by the State Water Board and the Office of Administrative Law (OAL). The proposed Amendment is not under federal jurisdiction as it relates to groundwater and so becomes effective under state law after OAL approval.

29. The Central Valley Water Board finds that the proposed Amendment was developed in accordance with Water Code section 13240, et seq.

THEREFORE BE IT RESOLVED:

1. Pursuant to Water Code section 13240, et seq., the Central Valley Water Board, after considering the entire record, including oral testimony received at the hearing, hereby approves the Staff Report and adopts the proposed Amendment into the Tulare Lake Basin Plan as set forth in Attachment 1.
2. The Executive Officer is directed to forward copies of the Basin Plan Amendment to the State Water Board in accordance with the requirements of section 13245 of the Water Code.
3. The Central Valley Water Board requests that the State Water Board approve the Basin Plan Amendment in accordance with the requirements of Water Code sections 13245 and 13246 and forward it to OAL.
4. If during its approval process the Central Valley Water Board staff, State Water Board or OAL determines that minor, non-substantive corrections to the language of the Amendment are needed for clarity or consistency, the Executive Officer may make such changes, and shall inform the Central Valley Water Board of any such changes.
5. The Central Valley Water Board hereby approves and adopts the CEQA Substitute Environmental Documentation, which was prepared in accordance with Public Resources Code section 21159, California Code of Regulations, title 14, section 15187, and California Code of Regulations, title 23, section 3777.
6. Following approval of the Basin Plan Amendment by the OAL, the Executive Officer shall file a Notice of Decision with the Secretary for Resources in accordance with Public Resources Code section 21080.5, subsection (d)(2)(E), and California Code of Regulations, title 23, section 3781.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on 06 April 2017.

Original signed by Pamela C. Creedon

PAMELA C. CREEDON, Executive Officer

Attachments

Attachment 1: Amendment to the Tulare Lake Basin Plan to Remove Municipal and Domestic Supply (MUN) and Agricultural Supply (AGR) Beneficial Uses from Groundwater within a Designated Horizontal and Vertical Portion of the Tulare Lake

ATTACHMENT 1

AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE TULARE LAKE BASIN TO REMOVE THE MUNICIPAL AND DOMESTIC SUPPLY (MUN) AND AGRICULTURAL SUPPLY (AGR) BENEFICIAL USES FROM GROUNDWATER WITHIN A DESIGNATED HORIZONTAL AND VERTICAL PORTION OF THE TULARE LAKE BED

The proposed changes to the Basin Plan are as follows. Text additions to the existing Basin Plan language are underlined and *italicized*. Text deletions to the existing Basin Plan are in ~~strikethrough~~.

Modify the Basin Plan in Chapter 2 Existing and Potential Beneficial Uses, column two, paragraph four (page II-2), as follows:

Figure II-2 and Table II-2 present the AGR, IND, PRO, REC-1, REC-2, and WILD beneficial uses of ground water that existed as of 1993. Due to the "Sources of Drinking Water Policy," all ground waters are designated MUN (the use may be existing or potential) unless specifically exempted by the Regional Water Board and approved for exemption by the State Water Board. Ground water areas exempted from MUN or other beneficial uses are ~~footnoted~~ presented in Table II-23.

Modify the Basin Plan in Chapter 2, Table II-2 (page II-6) as follows:

Add the following footnote to bottom of page II-5:

1 – See Table II-3 for listed groundwater beneficial use exceptions

Modify the Basin Plan in Chapter 2, Tulare Lake Basin Groundwater Beneficial Use Exceptions, Table II-2 (page II-7), to delete text as follows:

Table II-2
TULARE LAKE BASIN
GROUND-WATER BENEFICIAL USES (continued)
Beneficial Use Exceptions

- a. ~~Ground water contained in the lower Transition Zone and Santa Margarita formation within 3,000 feet of the Kern Oil and Refining Company proposed injection wells in Section 25, T30S, R28E, MDB&M, is not suitable, or potentially suitable, for municipal or domestic supply (MUN). Ground water contained in the basal Etchegoin formation, Chanac formation, and Santa Margarita formation within, and extending to one-quarter mile outside the administrative boundary of the Fruitvale Oil Field, as defined by the State of California, Department of Conservation, Division of Oil and Gas in *Application for Primacy in the Regulation of Class II Injection Wells Under Section 1425 of the Safe Drinking Water Act*, dated April 1981, is not suitable, or potentially suitable, for municipal or domestic supply (MUN). However, the upper ground water zone (ground water to a depth of 3,000 feet) retains the MUN beneficial use.~~

- b. ~~Ground water and spring water within 1/2 mile radius of the McKittrick Waste Treatment (formerly Liquid Waste Management) site in Section 29, T30S, R22E, MDB&M, are not suitable, or potentially suitable, for municipal or domestic supply (MUN).~~
- c. ~~Ground water in the San Joaquin, Etchegoin, and Jacalitos Formations within one-half mile of existing surface impoundments P 1, P 2, P 3, P 4, P 4 1/2, P 5, P 6, P 7, P 8, P 9, P 10, P 11, P 12/12A, P 13, P 14, P 15, P 16, P 17, P 18, P 19, and P 20, and proposed surface impoundments P 21, P 24, P 25, P 27, P 28, and P 29 at the Kettleman Hills Facility (Sections 33 and 34, T22S, R18E, and Section 3, T23S, R18E, MDB&M) of Chemical Waste Management is not a municipal or domestic supply (MUN).~~

Modify the Basin Plan in Chapter 2, to insert new Table II-3 (page II-7) as follows:

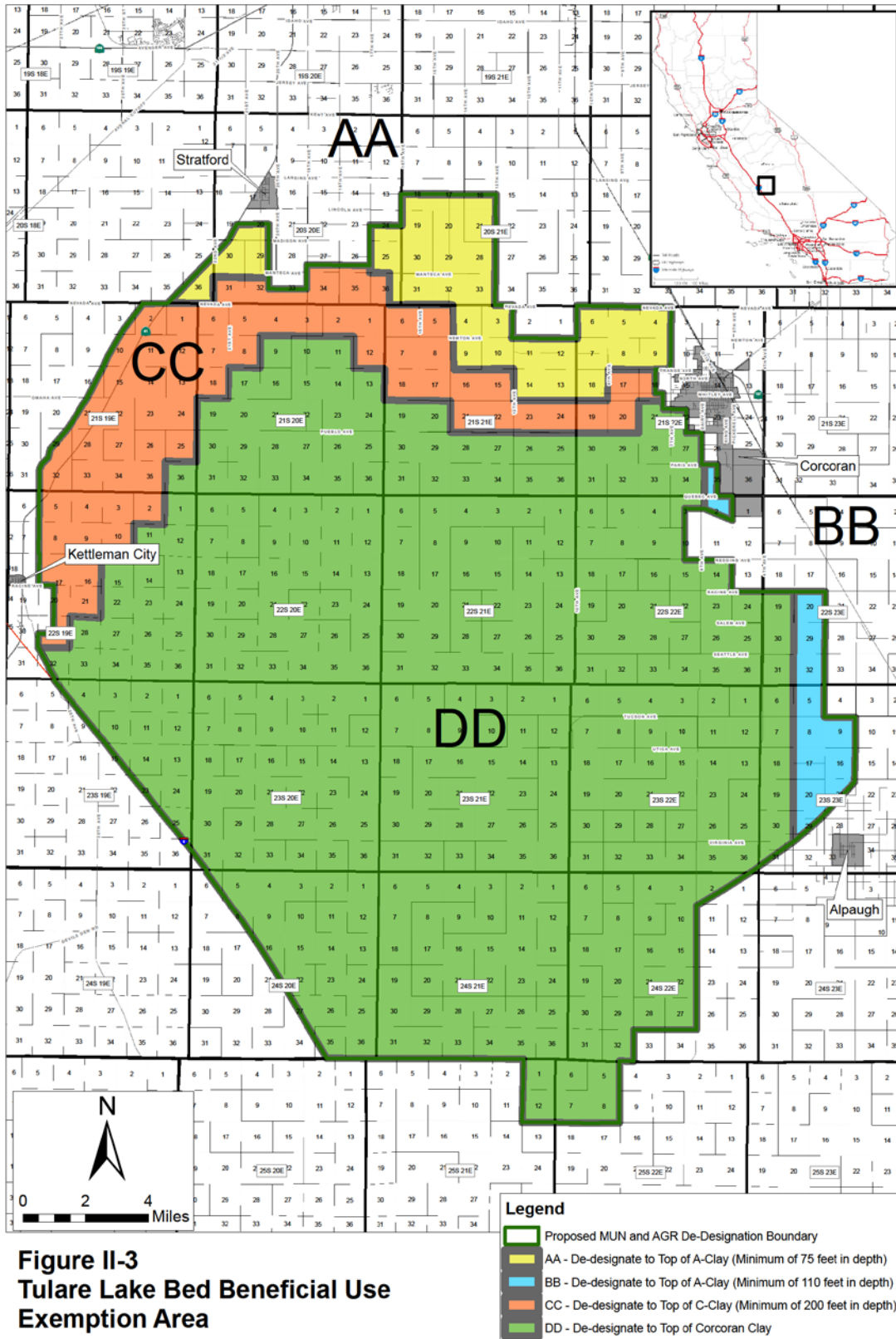
TABLE II-3
TULARE LAKE BASIN
GROUND-WATER BENEFICIAL USE EXCEPTIONS

<u>Exception Area</u>	<u>Area Description</u>	<u>DAU#</u>
<u>1</u>	<p>Ground water contained in the lower Transition Zone and Santa Margarita formation within 3,000 feet of the Kern Oil and Refining Company proposed injection wells in Section 25, T30S, R28E, MDB&M, is not suitable, or potentially suitable, for municipal or domestic supply (MUN).</p> <p>Ground water contained in the basal Etchegoin formation, Chanac formation, and Santa Margarita formation within, and extending to one-quarter mile outside the administrative boundary of the Fruitvale Oil Field, as defined by the State of California, Department of Conservation, Division of Oil and Gas in <i>Application for Primacy in the Regulation of Class II Injection Wells Under Section 1425 of the Safe Drinking Water Act</i>, dated April 1981, is not suitable, or potentially suitable, for municipal or domestic supply (MUN). However, the upper ground water zone (ground water to a depth of 3,000 feet) retains the MUN beneficial use.</p>	<u>254</u>
<u>2</u>	<p>Ground water and spring water within 1/2 mile radius of the McKittrick Waste Treatment (formerly Liquid Waste Management) site in Section 29, T30S, R22E, MDB&M, are not suitable, or potentially suitable, for municipal or domestic supply (MUN).</p>	<u>259</u>

<p><u>3</u></p>	<p>Ground water in the San Joaquin, Etchegoin, and Jacalitos Formations within one-half mile of existing surface impoundments P-1, P-2, P-3, P-4, P-4 1/2, P-5, P-6, P-7, P-8, P-9, P-10, P-11, P-12/12A, P-13, P-14, P-15, P-16, P-17, P-18, P-19, and P-20, and proposed surface impoundments P-21, P-24, P-25, P-27, P-28, and P-29 at the Kettleman Hills Facility (Sections 33 and 34, T22S, R18E, and Section 3, T23S, R18E, MDB&M) of Chemical Waste Management is not a municipal or domestic supply (MUN).</p>	<p><u>N/A</u></p>
<p><u>4</u></p>	<p><u>Groundwater in the Tulare Lake Bed within the horizontal and vertical boundaries as described below, and as shown in Figure II-3, are not suitable for municipal, and domestic or agricultural irrigation and stock watering supply (MUN and AGR):</u></p> <p><u>For the most accurate location for the de-designation boundary refer to figure ES-1 and the detailed boundary narrative description in Appendix ES-A of the staff report. However, the overall de-designation horizontal boundary general begins to the Northwest, just south of Stratford, to the North following Laurel Avenue, south at 13th Avenue, east at Nevada Avenue, south at between 8th and 7th Avenues along the western boundary of the town of Corcoran, to the west just south of Quebec Avenue, south approximately 6 ½ Avenue, east on Redding Avenue, south on 5th Avenue, east on Racine Avenue, South at approximately 2nd Avenue, begin angling just south of Utica Avenue past the westside boundary of Alpaugh moving west toward 6th Avenue south toward the county line, along county line moving to the west toward approximately 17th Avenue, then north toward Virginia Avenue, west to Interstate 5 moving north towards the east boundary of Kettleman City, continuing north just west of the Highway 41 to the southern boundary of Stratford.</u></p> <p><u>Depth discrete boundaries, AA through DD, are shown in Figure II-3 and described below:</u></p> <ul style="list-style-type: none"> • <u>Horizontal boundary AA to a vertical boundary to the top and extending to the bottom of the A-Clay (minimum of 75 feet in depth)</u> • <u>Horizontal boundary BB to a vertical boundary to the top and extending to the bottom of the A-Clay (Minimum of 110 feet in depth)</u> • <u>Horizontal boundary CC to a vertical boundary to the top and extending to the bottom of the C-Clay (minimum of 200 feet in</u> 	<p><u>238,</u> <u>241,</u> <u>243,</u> <u>244,</u> <u>246,</u> <u>255</u> <u>and</u> <u>259</u></p>

	<p><i>depth)</i></p> <ul style="list-style-type: none">• <u><i>Horizontal boundary DD to a vertical boundary to the top and extending to the bottom of the E-Clay (Corcoran clay)</i></u>	
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Add the following figure to the Basin Plan as Figure II-3, Tulare Lake Bed Beneficial Use Exemption Area, to new page II-7.02.



Modify the Basin Plan in Chapter III WATER QUALITY OBJECTIVES, WATER QUALITY OBJECTIVES FOR GROUND WATERS, column one, sentence one (page III-7) as follows:

The following water quality objectives apply to all ground waters in the Tulare Lake Basin, except for those areas with specific beneficial use exceptions as listed in Table II-3.

Modify the Basin Plan in Chapter III WATER QUALITY OBJECTIVES, WATER QUALITY OBJECTIVES FOR GROUND WATERS, Salinity, column one, paragraph one (page III-8) as follows:

All ground waters shall be maintained as close to natural concentrations of dissolved matter as is reasonable considering careful use and management of water resources, except for those areas with specific beneficial use exceptions as listed in Table II-3.

Modify the Basin Plan in Chapter III WATER QUALITY OBJECTIVES, WATER QUALITY OBJECTIVES FOR GROUND WATERS, Salinity, column one, paragraph three (page III-8) as follows:

The maximum average annual increase in salinity measured as electrical conductivity shall not exceed the values specified in Table III-4 for each hydrographic unit shown in Figure III-1, except for those areas with specific beneficial use exceptions as listed in Table II-3.