

|->

Title 22@ Social Security

|->

Division 4@ Environmental Health

|->

Chapter 3@ Water Recycling Criteria

|->

Article 5.1@ Indirect Potable Reuse: Groundwater Replenishment - Surface Application

|->

Section 60320.100@ General Requirements

60320.100 General Requirements

(a)

The requirements of this Article apply to Groundwater Replenishment Reuse Projects (GRRPs) utilizing surface application, which receive initial permits from the Regional Board after June 18, 2014. Within 12 months after June 18, 2014 a project sponsor for a GRRP permitted on or before June 18, 2014 shall submit a report to the Department and appropriate Regional Board assessing its compliance with the requirements of this Article. For each requirement considered noncompliant and applicable by the Department or Regional Board, a project sponsor shall submit a schedule to the Department and Regional Board, for demonstrating and/or achieving compliance with the applicable requirements of this Article. Unless directed otherwise by the Department, a project sponsor's report for a GRRP permitted on or before June 18, 2014 need not assess compliance with requirements of this Article that are required to be met prior to operation of a GRRP, except subsection (b) of this section. The report is subject to review and approval by the Department and Regional Board.

(b)

Prior to operation of a GRRP, the GRRP's project sponsor shall obtain Department approval of a plan describing the steps a project sponsor will take to provide an alternative source of drinking water supply to all users of a producing drinking water well, or a Department-approved treatment mechanism a project sponsor

will provide to all owners of a producing drinking water well, that as a result of the GRRP's operation, as determined by the Department: (1) violates a California or federal drinking water standard; (2) has been degraded to the degree that it is no longer a safe source of drinking water; or (3) receives water that fails to meet section 60320.108.

(1)

violates a California or federal drinking water standard;

(2)

has been degraded to the degree that it is no longer a safe source of drinking water;

or

(3)

receives water that fails to meet section 60320.108.

(c)

Prior to operating a GRRP, a project sponsor shall collect at least four samples, at least one sample each quarter, from each potentially affected aquifer. The samples shall be representative of water in each aquifer, taking into consideration seasonal variations, and be analyzed for the chemicals, contaminants, and characteristics pursuant to sections 60320.110, 60320.112, 60320.118, and 60320.120.

(d)

A GRRP's recycled municipal wastewater shall be retained underground for a period of time no less than the retention time required pursuant to sections 60320.108 and 60320.124. The GRRP shall be designed and operated in a manner that ensures water treated pursuant to this Article, beyond the boundary described in subsection (e)(2), meets the recycled municipal wastewater contributions (RWC) requirements in section 60320.116.

(e)

Based on hydrogeologic flowpaths, a GRRP's project sponsor shall provide the Department, Regional Board, and local well-permitting authorities a map of the GRRP site at a scale of 1:24,000 or larger (1 inch equals 2,000 feet or 1 inch equals less than 2,000 feet) or, if necessary, a site sketch at a scale providing more detail, that clearly indicates the criteria in paragraphs (1) - (4) below. A revised map shall be prepared and provided when conditions change such that the previous map no longer accurately reflects current conditions. (1) the location and boundaries of the GRRP; (2) a boundary representing a zone of controlled drinking water well construction, the greatest of the horizontal and vertical distances reflecting the retention times required pursuant to sections 60320.108 and 60320.124; (3) a secondary boundary representing a zone of potential controlled drinking water well construction, depicting the zone within which a well would extend the boundary in paragraph (2) to include existing or potential future drinking water wells, thereby requiring further study and potential mitigating activities prior to drinking water well construction; and (4) the location of all monitoring wells established pursuant to section 60320.126, and drinking water wells within two years travel time of the GRRP based on groundwater flow directions and velocities expected under GRRP operating conditions.

(1)

the location and boundaries of the GRRP;

(2)

a boundary representing a zone of controlled drinking water well construction, the greatest of the horizontal and vertical distances reflecting the retention times required pursuant to sections 60320.108 and 60320.124;

(3)

a secondary boundary representing a zone of potential controlled drinking water well construction, depicting the zone within which a well would extend the boundary in paragraph (2) to include existing or potential future drinking water wells, thereby requiring further study and potential mitigating activities prior to drinking water well construction; and

(4)

the location of all monitoring wells established pursuant to section 60320.126, and drinking water wells within two years travel time of the GRRP based on groundwater flow directions and velocities expected under GRRP operating conditions.

(f)

Prior to operating a GRRP, a project sponsor shall demonstrate to the Department and Regional Board that a project sponsor possesses adequate managerial and technical capability to assure compliance with this Article.

(g)

Prior to replenishing a groundwater basin or an aquifer with recycled municipal wastewater, a GRRP's project sponsor shall demonstrate that all treatment processes have been installed and can be operated by a project sponsor to achieve their intended function. A protocol describing the actions to be taken to meet this subsection shall be included in the engineering report submitted pursuant section 60323.

(h)

In the engineering report required pursuant to section 60323, a project sponsor for a GRRP shall include a hydrogeological assessment of the proposed GRRP's setting. The assessment shall include the following: (1) the qualifications of the individual(s) preparing the assessment; (2) a general description of geologic and hydrogeological setting of the groundwater basin(s) potentially directly impacted

by the GRRP; (3) a detailed description of the stratigraphy beneath the GRRP, including the composition, extent, and physical properties of the affected aquifers; and (4) based on at least four rounds of consecutive quarterly monitoring to capture seasonal impacts; (A) the existing hydrogeology and the hydrogeology anticipated as a result of the operation of the GRRP, and (B) maps showing quarterly groundwater elevation contours, along with vector flow directions and calculated hydraulic gradients.

(1)

the qualifications of the individual(s) preparing the assessment;

(2)

a general description of geologic and hydrogeological setting of the groundwater basin(s) potentially directly impacted by the GRRP;

(3)

a detailed description of the stratigraphy beneath the GRRP, including the composition, extent, and physical properties of the affected aquifers; and

(4)

based on at least four rounds of consecutive quarterly monitoring to capture seasonal impacts; (A) the existing hydrogeology and the hydrogeology anticipated as a result of the operation of the GRRP, and (B) maps showing quarterly groundwater elevation contours, along with vector flow directions and calculated hydraulic gradients.

(A)

the existing hydrogeology and the hydrogeology anticipated as a result of the operation of the GRRP, and

(B)

maps showing quarterly groundwater elevation contours, along with vector flow directions and calculated hydraulic gradients.

(i)

If a project sponsor fails to complete compliance monitoring required pursuant to this Article, the Regional Board may determine water quality-related compliance based on available data.

(j)

A project sponsor shall ensure that the recycled municipal wastewater used for a GRRP shall be from a wastewater management agency that is not in violation of the effluent limits pertaining to groundwater replenishment pursuant to this Article, as established in the wastewater management agency's Regional Board permit.

(k)

If a project sponsor has been directed by the Department or Regional Board to suspend surface application pursuant to this Article, surface application shall not resume until the project sponsor has obtained Department and Regional Board approval.