

Groundwater Replenishment Reuse Draft Regulation (March 28, 2013)

Prepared by Judi Miller, CH2M HILL for LA Chapter WaterReuse Association meeting, April 9, 2012

Preamble from CDPH website

- The Department is currently in the process of developing the remainder of the regulation package (including the Initial Statement of Reasons) based on this latest draft.
- Through SB 918 (2010), Water Code section 13562 requires CDPH to adopt revised groundwater replenishment regulations by December 31, 2013.
- It's unlikely this deadline will be met since CDPH has not received the additional resources necessary to meet the deadline in SB 918.
- Nevertheless, proposed groundwater replenishment (and surface water augmentation) projects continue to move forward.
- The final proposed version will proceed through the formal regulation adoption process and will be subject to public review and comment as part of that process.

<http://www.cdph.ca.gov/healthinfo/environhealth/water/Pages/Waterrecycling.aspx>

Changes from previous (November 21, 2011) version

Issue	Previous version (November 21, 2011)	New version (March 28, 2013)
Separate section GWR Surface Application w/FAT	Separate article allowing for reduced monitoring after 1 year of operation	Incorporated into section on pathogenic microorganism control, i.e., with 6-months retention time, credited w/10-log <i>Giardia</i> and 10-log <i>Crypto</i> reduction. Reduced monitoring discussed wrt nitrogen compounds.
Timeframe for existing GRRPs	Compliance report triggered at time of permit renewal	Report required 12 months after effective date of reg
Added Tracer	In greater concentration than receiving water (3 orders of magn.)	"distinctly different" (higher or lower)
Intrinsic tracer	Substance at greater concentrations	Substance or "attribute" at different (higher or lower) levels
Tracer measurement	First 2% of tracer measured	10% of peak tracer unit value observed

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	downgradient	downgradient
Zone of restricted well development		Added secondary boundary of zone of <i>potential</i> restricted well development in which well siting triggers further study. Map revised when conditions change
Compliance monitoring		RWQCB can use available data to determine compliance if project sponsor fails to complete required monitoring
Wastewater source control		RWQCB can also (in addition to CDPH) specify chemical and contaminant source investigations required
Pathogenic microorganism log reduction credit	Treatment processes required to be credited with ≥ 1 -log	At least 3 treatment processes required to be credited with ≥ 1 -log
Nitrogen compounds	Reduced monitoring based on Total-N, NO ₃ , NO ₂ & NO ₃ +NO ₂	Reduced monitoring based on only Total-N
Sampling	grab	Grab or composite, except for diluents water; TOC have to demonstrate or if RO-treated
Diluent Water Reqs.		Secondary MCL
		If approved by the Department, recharge water may be monitored in lieu of a diluent water source if the diluent water source cannot be monitored directly in a manner that provides samples representative of the diluent water being applied.
RWC	Initial max. RWC ≤ 0.20	Initial max. RWC ≤ 0.20 unless an alternative initial RWC is approved by the Department ...and the project sponsor demonstrates that the treatment processes preceding the soil-aquifer treatment process will reliably meet the TOC criterion: (≤ 0.5 mg/L/proposed RWCmax.) for 20-week running average for 52 wks)
	Notification after exceedance of criteria	Notification after "knowledge of" exceedance of criteria
Assessing SAT performance	Monitor TOC	Monitor TOC, indicator compounds, and surrogate parameters
		Prior to a new GRRP beginning initial operation and at five-year intervals thereafter, the project sponsor shall conduct a study to determine the occurrence of indicator compounds in the recycled municipal wastewater to be applied at the GRRP. Following completion

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		of the study, the project sponsor shall propose at least three indicator compounds for use in meeting subsection (g) re: quarterly monitoring of these compounds.
Notification Levels	Single exceedance triggers notification of CDPH and RWQCB and possibly local well water agencies	Single exceedance triggers additional monitoring. 4-week avg. exceedance triggers notification of CDPH and RWQCB; 16-week consec. Exceedance may trigger suspension.
Operations Plan	Submit to CDPH	Submit to CDPH and RWQCB
Reporting	Annually	No later than 6 months after the end of each calendar year
		Increases in RWC during the previous calendar year and RWC increases anticipated for the current calendar year.
GWR Subsurface		
Baseline well monitoring	2 samples	4 quarterly samples
Membranes	99.5% NaCl rejection	Min. 99% NaCl rejection; avg. ≥99.2% NaCl rejection; modified test conditions
Occurrence study testing	“pilot” testing	Not restricted to pilot-scale
Monthly sampling	FAT effluent < MCL or NL	FAT effluent < MCL (only)