

ITEM: 19

SUBJECT: Uncontested Waste Discharge Requirements

REPORT: Following are the proposed waste discharge requirements that prohibit discharge to surface waters. All agencies and the dischargers concur or have offered no comments. Items indicated as updates on the summary agenda make the requirements consistent with current plans and policies of the Board.

	<p>a. North Fork Aggregate North Fork Aggregate, Inc., and William and Robin Rich, Shasta County North Fork Aggregates operates a sand and gravel extraction facility in former gold mine tailings at the confluence of the North Fork Cottonwood Creek with the Middle Fork Cottonwood Creek. North Fork Aggregate began processing mined material in 2002. The site is covered under Shasta County Reclamation Plan No. 02-001 and Shasta County use permit No. 02-017. The mine and processing facility are on land owned by William and Robin Rich. Process water discharged to the wash pond is high in suspended solids (e.g., silts). Once the solids have settled, the clarified process water is conveyed from the settling pond to the processing plant for reuse. The site is in a former gold mining region where sluice boxes and mercury were used to extract gold from mined material. Significant amounts of mercury were often lost during this process, suggesting that residual mercury may exist at the site. This Order requires that the settling ponds be tested for mercury on a regular basis. Based on the sample results, additional action may or may not be necessary. New Waste Discharge Requirements are being proposed to reflect the washing aspect of the gravel operation.</p>
	<p>b. West Valley Sand and Gravel New Empire Aggregates, Inc. dba West Valley Sand and Gravel and Flying RR, LLC, Shasta County New Empire Aggregates, Inc., dba West Valley Sand and Gravel operates a sand and gravel extraction facility in former gold mine tailings near Dry Creek in Shasta County. Extracted raw aggregate is conveyed to an area where the material is washed and screened. Some of the larger material may be crushed on site to increase saleable product. Excess wash water is recycled through two settling ponds located on the West Valley Sand and Gravel site. The mine and processing facility are on land owned by Flying RR, LLC. Process water discharged to the ponds is high in suspended solids (e.g., silts). Once the solids have settled, the clarified process water is conveyed from the settling ponds to the processing plant for reuse. The site is in a former gold mining region where sluice boxes and mercury were used to extract gold from mined material. Significant amounts of mercury were often lost during</p>

	<p>this process, suggesting that residual mercury may exist at the site. This Order requires that the settling ponds be tested for mercury on a regular basis. Based on the sample results, additional action may or may not be necessary. New Waste Discharge Requirements are being proposed to reflect the washing aspect of the gravel operation</p>
	<p>c. Mozzarella Fresca, Inc. (Discharger) purchased and upgraded the Tipton Cheese Processing Plant (Facility) and began operation in September 2003 for specialty cheese manufacturing. The wastewater quantity and strength exceeded the capacity of the Tipton Community Services District wastewater treatment facility so the Discharger entered into an agreement with FM Dairy No. 2 to discharge wastewater into the existing dairy ponds. The Executive Officer issued Cleanup and Abatement Order (CAO) No. R5-2005-0702 in 2005, requiring the Discharger to cease discharge of cheese processing wastewater to the dairy ponds. The Discharger ceased discharge to the dairy and submitted a revised RWD to land apply wastewater to approximately 310 acres of farmland (Reuse Area) owned by Mr. Mike Silva. The treated wastewater is transported to the Reuse Area where it is stored in a 600,000-gallon above ground tank. A combination of groundwater and surface water is blended with wastewater and applied at plant uptake rates for both nutrient and hydraulic loading. Current wastewater flows are approximately 0.11 million gallons per day (mgd). The average EC of the discharge is 1,400 $\mu\text{mhos/cm}$. Although not quantified, a portion of the EC in the discharge can be attributed to organic compounds that will break down in the soil profile. In addition, the Discharger has implemented several measures to reduce the EC of the discharge. The Basin Plan allows blending to promote beneficial reuse. The wastewater is used to supplement irrigation of existing crops and is blended at a minimum ratio of three to one to meet irrigation demands. With blending, the EC of the discharge is about 700 $\mu\text{mhos/cm}$. The Waste Discharge Requirements (WDRs) limit the monthly average daily discharge flow to 0.25 mgd, and sets effluent limits for EC, chloride, and boron to 1,600 $\mu\text{mhos/cm}$, 175 mg/L, and 1 mg/L, respectively. In addition, the WDRs require that the Discharger submit a technical report detailing all measures taken to reduce the salinity of the discharge and identify and document that all feasible salinity control measures have been implemented.</p>
	<p>d. The Pixley Public Utility District (Discharger or District) operates a Wastewater Treatment Facility (WWTF) for the unincorporated community of Pixley, which has an estimated population of 2,600 people. Currently there are no industrial users connected to the WWTF. Wastewater is treated in a clarigester and two unlined aerated treatment ponds operated in series. The undisinfected secondary treated effluent is stored in five unlined</p>

	<p>stabilization/storage ponds until used to irrigate approximately 43-acres of pasture owned by the Discharger for grazing non-milking cattle. The existing headworks, lift station, and clarigester are old, difficult to maintain, and being operated at or above their design capacity. The Discharger submitted a Report of Waste Discharge (RWD) for its Expansion Project including construction of a new treatment system and to increase the Reclamation Area to include 160 acres of farmland adjacent to the WWTF. Expansion of the WWTF is intended to provide a hydraulic capacity of 0.5 mgd and provide redundancy in case of emergencies. Plans for the Expansion Project include a new headworks and pump station, and two aeration basins with an anoxic tank for nitrification and denitrification to reduce nitrogen in the effluent. The Expansion Project will also include construction of a new 3.8-acre effluent storage pond, modification of the existing pond system, and new lined sludge handling and storage facilities. Waste Discharge Requirements (WDRs) Order No. R5-2000-096, adopted on 28 April 2000, limits the monthly average discharge flow to 0.29 mgd. Self monitoring reports (SMRs) document that the WWTF is currently operating at or near its average daily flow limit. In addition, the WWTF does not always meet effluent quality limitations for BOD and TSS. Cease and Desist Order (CDO) No. R5-2000-097, adopted concurrent with WDRs Order No. R5-2000-096, required the Discharger to perform a series of tasks according to a time schedule to complete the expansion of the WWTF by December 2002. The Discharger has completed all tasks in the CDO except for construction of an expanded WWTF. The delay in completing the expansion of the WWTF has been due to changes in the design of the system to meet future needs of the community and problems securing funding for the project. The estimated cost for the Expansion Project is 4.1 million dollars. The District has obtained funding through the State Water Board's Small Communities Wastewater Grant program. The District has also applied for and is in the process of obtaining funding through the USDA's Rural Utilities Service program. Sewer rates are currently \$15.00 per month and are expected to go up to \$28.00 or \$30.00 per month to cover the costs of operation and maintenance of the expanded WWTF. The proposed WDRs would carry over the current WDRs' monthly average discharge flow and effluent limits for BOD5 and TSS until the Expansion Project is completed. Once the Expansion Project is complete, the proposed WDRs would prescribe a monthly average flow limit of 0.5 mgd and effluent limitations for BOD5, TSS and total nitrogen. The Discharger cannot immediately comply with the limits in the proposed WDRs due to lack of treatment and disposal capacity. Once the Expansion Project is complete, the Discharger should be able to comply with the terms and conditions of the proposed WDRs. The</p>
--	--

		accompanying proposed CDO would require the Discharger to perform a series of tasks according to an updated time schedule to complete the Expansion Project.
	e.	Synagro West, LLC owns and operates the proposed Silva Ranch Wet Weather Biosolids Storage Facility on land owned by Gary Silva. Waste Discharge Requirements (WDRs) Order Nos. 95-064 and 98-023 were adopted by the Regional Water Board to regulate biosolids application to land at separate areas of the 2,800-acre Silva Ranch. These Orders remain in effect until revised or rescinded. New WDRs for the facility are proposed to provide requirements for construction, operation, monitoring, and closure of a lined waste management unit to be used for temporary storage of biosolids during wet weather when they cannot be applied to land. The proposed WDRs would regulate the facility under Title 27, California Code of Regulations as Class II waste management units. The proposed facility would consist of a lined Class II waste pile and a lined Class II surface impoundment. Biosolids would be stored within the waste pile area during wet weather, and runoff or leachate from the waste pile would drain by gravity to the surface impoundment. The proposed WDRs also require the installation of groundwater monitoring wells to monitor the underlying regional aquifer. Surface water drainage is to Browns Creek, which is a tributary to Laguna Creek, which is tributary to the Cosumnes River.
	f.	Kirkwood Meadows Public Utility District owns and operates a wastewater treatment plant that serves the community of Kirkwood Meadows. In the fall of 2005, the Discharger upgraded the treatment plant from a conventional activated sludge treatment process to a membrane bioreactor treatment process. The upgraded wastewater treatment provides tertiary treatment and disinfection, and has a monthly average design capacity of 190,000 gallons per day (gpd) and a peak daily flow of 274,000 gpd. Tertiary disinfected effluent is disposed of to a pressure dosed leachfield disposal system. The treatment plant has a nitrification/denitrification activated sludge process, which is considered BPTC for nitrogen compounds. However, due to a number of factors, the current denitrification treatment process does not appear adequate to protect the underlying groundwater from pollution by nitrogen compounds. Therefore, this Order requires the Discharger to submit a Nitrogen BPTC Evaluation Report and Implementation Workplan to evaluate the facility's waste treatment and disposal system and to determine additional best practicable treatment and control for nitrogen compounds. Surface water drainage in the vicinity of the effluent disposal area flows to Kirkwood Creek, which is a tributary to Caples Creek, which is tributary to the South Fork of the American River.
	g.	SPX Corporation owns a property at 150 N. Sinclair Avenue in the East Stockton Area (site) that was used as a cooling tower

	<p>fabrication plant. Wood preservatives containing copper, chromium and arsenic solutions were used at the site. These operational practices left waste constituents in soils and groundwater underlying the site. Site soils contain elevated levels of copper, chromium, and arsenic; groundwater contains elevated concentrations of chromium. Recent groundwater monitoring results showed that the total chromium concentrations are highest near the primary release area at a concentration of 4,900 micrograms per liter. The proposed full-scale in-situ groundwater treatment remedy involves injecting a solution containing calcium polysulfide and methanol (i.e., amendments) to create ten reactive barriers throughout the groundwater plume from approximately 55 to 85 feet below ground surface (bgs) for shallow impacts and between 55 and 115 feet bgs for deep impacts. Amendments will also be injected along a grid configuration within the northern property using both shallow and deep injection intervals. The full-scale in-situ treatment remedy is expected to take about three years to implement to completion. The in-situ treatment will likely cause short-term increases of TDS and some dissolved metals within the treatment area. If it is determined that these substances are migrating outside of the treatment area, the Discharger would be required to implement contingency measures that could include additional remediation to address impacts from dissolved solids or incomplete chemical treatment of chromium.</p>
--	---

RECOMMENDATION: Adopt the proposed waste discharge requirements.

Mgmt. Review _____
 Legal Review _____

13/14 September 2007 Regional Water Board Meeting

City of Clovis Council Chambers
 1033 Fifth Street
 Clovis, CA 93612