LATE REVISIONS
Mountain House Community Services District
Mountain House CSD Wastewater Treatment Plant
Proposed Tentative Waste Discharge Requirements
Regional Water Quality Control Board, Central Valley Region
Board Meeting – 3/4 May 2007
ITEM #18

1. In the NPDES Permit, Section I Facility Information

Modify the Facility Information table as follows:

Discharger	Mountain House Community Services District
Name of Facility	Mountain House Wastewater Treatment Plant
Facility Address	17300 W. Bethany Road
	Mountain House, CA 95391
	San Joaquin County
Facility Contact, Title, and Phone	Mr. Paul Sensibaugh, General Manager (209) 468-9997
Mailing Address	SAME
Type of Facility	POTW
Facility Design Flow	3.0/5.4 million gallons per day (mgd)[1]

[1] The facility design flow is based on the average dry weather flow (ADWF)

2. In the NPDES Permit, Section II.B. Facility Description

Modify the second paragraph as follows:

The Phase II WWTF is designed for an influent ~~flow~~ ADWF of 3.0 mgd, and includes a head works, an anoxic reactor for flow/load equalization and a carbon source for denitrification, sequencing batch reactors (SBRs) for biological treatment including nitrification and denitrification, tertiary filtration, automated chemical feed, ultraviolet disinfection, and aerobic sludge digestion. The Phase I lined aeration lagoons will be retained as emergency storage lagoons. The aerobic sludge digestion is designed to meet the Class B biosolids requirements of 40 CFR Part 503. The Phase III WWTF is an expansion of the Phase II WWTF, and has a design treatment capacity of 5.4 mgd. Effluent from the Phase II and III treatment plants will be discharged to Old River.

3. In the NPDES Permit, IV.A.1. Final Effluent Limitations

Delete the following item and renumber accordingly:

f. ~~**Average Dry Weather Flow.** The average dry weather discharge shall not exceed 3.0 million gallons per day~~

4. In the NPDES Permit, Section VI.C.1 Reopener Provisions

Modify the following paragraph as follows:

e. Dilution Credits. No dilution has been granted in this Order, thus end-of-pipe effluent limitations for all constituents are required. As discussed in the Fact

Sheet, Section IV.C.2.b., the Discharger has not provided adequate information for the allowance of dilution credits~~, most importantly, real time flow monitoring data in the vicinity of the discharge~~. Should adequate data be developed and provided to RWQCB staff, ~~a real-time flow monitoring station be installed in the vicinity of the discharge~~, and if this information ~~real-time flow monitoring data from the station and supporting mathematical modeling analysis~~ demonstrates that sufficient dilution flows are available in Old River, this Order may be reopened to allow dilution credits based on the ~~real time flow~~ data.

Add the following item:

j. Water Effects Ratios (WER) and Metal Translators. A default WER of 1.0 has been used in this Order for calculating CTR criteria for applicable inorganic constituents. In addition, default dissolved-to-total metal translators have been used to convert water quality objectives from dissolved to total recoverable when developing effluent limitations for iron and aluminum. If the Discharger performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators, this Order may be reopened to modify the effluent limitations for the applicable inorganic constituents.

5. In the NPDES Permit Section VII.D. Compliance Determination

Modify the paragraph as follows:

D. Average Dry Weather Flow.

Average Dry Weather Flow (ADWF) represents the daily average flow when groundwater is at or near normal and runoff is not occurring. Compliance with the ADWF effluent limitations will be determined annually based on the average daily flow over three consecutive dry weather months (e.g. July, August, and September) ~~measured at times when groundwater is at or near normal and runoff is not occurring~~

6. In the NPDES Permit Section VII.F. Compliance Determination

Modify the paragraph as follows:

F. Group A Pesticides Effluent Limitation.

The non-detectable (ND) limitation applies to each individual pesticide. No individual pesticide may be present in the discharge at detectable concentrations. The Discharger shall use USEPA standard analytical techniques ~~with the lowest~~

~~possible detectable level for Group A pesticides~~ with a minimum acceptable reporting level as indicated in appendix 4 of the SIP.

7. In the Monitoring and Reporting Program (MRP), Attachment E, Section IV.A.1 Effluent Monitoring Requirements

Modify the table as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Settleable Solids	mL/L	Grab	1/~~day~~ month	
Oil and Grease	mg/L	Grab	1/month	

8. In the MRP, Attachment E, Section VIII.A.1. Surface Water Monitoring

Modify the table as follows:

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved Oxygen[1]	mg/L	Grab	Weekly	
pH	Standard Units	Grab	Weekly	
Temperature[1]	°F (°C)	Grab	Weekly	
Electrical Conductivity @ 25°C[1]	µmhos/cm	Grab	Weekly	
~~Ammonia (as N)~~[~~3, 4~~]	~~mg/L~~	~~Grab~~	~~1/week~~	
Hardness as $CaCO_3$	mg/L	Grab	Monthly	
Mercury, total	ng/L	Grab	Monthly	Method 1631
Mercury, methyl	ng/L	Grab	Monthly	Method 1630[96]
~~Nitrate (as N)~~	~~mg/L~~	~~Grab~~	~~Monthly~~	
~~Nitrite (as N)~~	~~mg/L~~	~~Grab~~	~~Monthly~~	
Total Kjeldahl Nitrogen (as N)	mg/L	Grab	Monthly	
Total Organic Carbon	mg/L	Grab	Monthly	
Total Phosphorus	mg/L	Grab	Monthly	
~~Trihalomethanes~~ Chloroform [~~3~~2]	µg/L	Grab	Quarterly	
Standard Minerals[4 3]	mg/L	Grab	Annually	
Priority Pollutants[32,4, 5, ~~6~~]	µg/L	Grab	Annually	

~~1~~ A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the WWTF.

~~2Temperature and pH shall be determined at the time of sample collection.~~

~~3~~ 2 Detection limits shall be equal to or less than the lowest minimum level published in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Plan).

~~4 Trihalomethanes include bromoform, chloroform, dichlorobromomethane, and dibromochloromethane.~~

~~5~~ 3 Standard minerals shall include all major cations and anions and include verification that the analysis is complete (i.e., cation/anion balance).

~~6~~ 4 Concurrent with effluent sampling.

~~7~~ 5 Sampling only required at R-001.

~~8~~ 6 Unfiltered methylmercury samples shall be taken using clean hands/dirty hands procedures, as described in U.S. EPA method 1669: *Sampling Ambient Water for Trace Metals at EPA Water Quality Criteria Levels*, for collection of equipment blanks (section 9.4.4.2), and shall be analyzed by U.S. EPA Method 1630 (Revision E) with a method detection limit of 0.02 ng/L

9. In the MRP, Attachment E, Section X.D.1. Progress Reports

Modify the following entry in the table as follows:

Special Provision	Reporting Requirements
Compliance Schedule for Aluminum (Special Provisions VI.C.4.~~c~~b.)	**June 1**, annually, until full compliance

10. In the Fact Sheet, Attachment F, Section I.,

Modify the footnote to Table 1 as follows:

1 ~~Effective upon compliance with Provisions VI.C.4.a.ii, the design and permitted flow is 3.0 mgd for discharge to Old River.~~ Effective upon compliance with Provisions VI.C.4.a.~~b.ii~~, the design and permitted flow is 5.4 mgd for discharge to Old River.

Modify the following paragraph as follows:

B. The Facility wastewater discharge to Old River, a water of the United States, is currently regulated by Order 98-192, which was adopted on September 11, 1998 and expired on September 1, 2003. The terms of Order No. 98-192 automatically continued in effect after the permit expiration date. ~~The Facility has never discharged to Old River.~~

11. In the Fact Sheet, Attachment F, Section II.A.3.

Modify the third and fourth paragraphs as follows:

On March 13, 2007, the Discharger commenced operation of the Phase II WWTF ~~March 13, 2007, and is designed for up to 3.0 mg~~ and began discharging pursuant to Order No. 98-192 (NPDES Permit No. 0084271). The Phase II WWTF utilizes portions of the Phase I WWTF but includes an anoxic reactor for flow/load equalization and a carbon source for denitrification, sequencing batch reactors (SBRs) for biological treatment including nitrification and denitrification, new tertiary filters, automated chemical feed, pre- and post on-line turbidity instrumentation, and ultraviolet disinfection, and two stage aerobic digesters to achieve Class B biological sludge treatment. Sludge supernatant will return to the anoxic reactor (Attachment C-2).

Phase III, which expands the capacity to an average dry weather flow (ADWF) of 5.4 mgd, includes a larger influent pumping system and effluent pumping system, a larger bar screen, and an additional SBR. The Phase II and Phase III WWTFs are designed to treat biosolids to Class B as defined by 40 CFR Part 503. The biosolids will be removed by a hauler for disposal at a licensed biosolids facility.

12. In the Fact Sheet, Attachment F, Section II.E.3. Planned Changes

Modify the two paragraphs as follows:

1. **Phase I WWTF (0.45 mgd ADWF Design Capacity).** The Phase I WWTF includes four aerated lagoons in series, dissolved air flotation to remove algae, filters, a two-unit chlorine contact basin, two effluent storage reservoirs, and an interim land reclamation area.

2. **Phase II WWTF (3.0 mgd ADWF Design Capacity) and Phase III WWTF (5.4 mgd ADWF Design Capacity).** The Phase II WWTF utilizes the existing bar screens and influent channels, and replaces the Phase I WWTF with grit removal, an emergency storage reservoir, an anoxic reactor/surge basin, parallel sequencing batch reactors, an effluent surge basin, sludge digesters, sludge centrifuge, filters, and ultraviolet disinfection. The Phase III WWTF is an expansion of the Phase II WWTF, adding additional treatment units to handle the expanded flows. The Phase II and Phase III WWTFs will discharge directly to Old River.

13. In the Fact Sheet, Attachment F, Section III.C.8. Anti-Degradation Policy

Modify the last three paragraphs as follows:

(1) The Discharger develops and implements a salinity source control program as approved by the Executive Officer that will identify and implement measures to reduce salinity in discharges from residential, commercial, industrial and

infiltration sources in an effort to meet an interim salinity goal of a maximum 500 umhos/cm electrical conductivity increase over the weighted average conductivity of the MHCSD's ~~City of Tracy's~~ water supply; and

(2) When notified by the Executive Officer, the Discharger participates financially in the development of the Central Valley Salinity Management Plan.

Failure to meet conditions (1) and (2), above, would result in the final effluent limitation becoming effective. Furthermore, this Order establishes an interim effluent limit of ~~1400~~1406 µmhos/cm as electrical conductivity (EC) based on the Discharger's current level of performance, requires that the Discharger implement best practicable treatment or control (BPTC) of its discharge, requires the development and implementation of pollution prevention plan for salinity in accordance with CWC section 13263.3(d)(1)(D., and includes a salinity reduction goal of 1000 µmhos/cm.

14. In the Fact Sheet, Attachment F, Section IV.C.2.w. Organo-Chlorine Pesticides

Modify the first paragraph as follows:

w. Organo-Chlorine Pesticides. Organo-chlorine pesticides include aldrin, alpha BHC, beta BHC, beta endosulfan, delta BHC, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, chlordane, dieldrin, endrin, endrin aldehyde, alpha endosulfan, endosulfan sulfate, heptachlor, heptachlor epoxide, lindane and toxaphene. Aldrin and heptachlor were detected in the effluent in concentrations as high as 0.00~~2~~5 µg/L, and 0.0~~1~~23 µg/L, respectively. Each of these constituents is a chlorinated hydrocarbon pesticide. The Basin Plan requires that no individual pesticides shall be present in concentrations that adversely affect beneficial uses; discharges shall not result in pesticide concentrations in bottom sediments or aquatic life that adversely affect beneficial uses; total chlorinated hydrocarbon pesticides shall not be present in the water column at detectable concentrations; and pesticide concentrations shall not exceed those allowable by applicable anti-degradation policies. The CTR contains numeric criteria for aldrin and heptachlor, of 0.00013 µg/L and 0.00021 µg/L, respectively, for freshwaters from which both water and organisms are consumed.

15. In the Fact Sheet, Attachment F, Section IV.C.2.z.vi. Salinity

Modify the eighth paragraphs as follows:

(1) The Discharger develops and implements a salinity source control program as approved by the Executive Officer that will identify and implement measures to reduce salinity in discharges from residential, commercial, industrial and

infiltration sources in an effort to meet an interim salinity goal of a maximum 500 umhos/cm electrical conductivity increase over the weighted average conductivity of the MHCSD's ~~City of Tracy's~~ water supply; and

16. In the Fact Sheet, Attachment F, Section IV.C.4.c Table 4

Modify the following entries in Table 4 as follows:

Table F-4
Statistics for Effluent Constituents with Detectable Results[1]

Constituent	Units	MEC	Mean	Std. Dev.	CV	# of Samples
Bentazon	µg/L	0.49 ~~1.0~~	0.45	0.39	0.6	4
Dalapon	µg/L	~~<10~~ 0.55	[2]	[2]	[2]	4
Heptachlor	µg/L	0.023	0.01	0.01	0.6	4
Pentachlorophenol	µg/L	0.065	[2]	[2]	[2]	12
Phosphorus, Total (as P)	µg/L	1000 ~~980~~	442	414	0.94	13
Thallium	µg/L	0.005	[2]	[2]	[2]	13

[1] Effluent data from 2004-2005.
[2] All samples were less than detection or less than the water quality objective.

17. In the Fact Sheet, Attachment F, Section IV.C.4.c Table 5

Modify the Table as follows:

Table 5 Reasonable Potential Analysis

Constituent	Units	MEC	B	C	CMC	CCC	Water & Org	Org. Only	Basin Plan	MCL	Reasonable Potential
2,3,7,8-TCDD	pg/L	< 2.90	< 2.90	0.013	--	--	0.013	0.014	--	--	No
2,4-D	µg/L	2.30	0.38	70	--	--	--	--	--	70	No
2,4,5-TP (Silvex)	µg/L	0.24	< 0.31	--	--	--	--	--	--	--	No
Aluminum	µg/L	~~1700~~ 540	2400	87	750 [1]	87 [1]	--	--	--	200	Yes, MEC>C
Aldrin	µg/L	0.005	< 0.002	0.00013	1.1	0.001	0.00013	0.00014	ND	ND	Yes
Ammonia (as N)	mg/L	32.9	0.26	1.83	2.14 [1][4]	1.47 [1][5]	--	--	--	--	Yes, MEC>C
Antimony	µg/L	0.55	0.50	6	--	--	14	4300	--	6	No
Arsenic	µg/L	2	4.5	10	340	150	--	--	--	10	No
Barium	µg/L	~~83~~ 37	83	100	--	--	--	--	100	1000	No
Bentazon	µg/L	~~2~~ 0.49	< 0.60	680	--	--	680	21,000	--	--	No
Bis(2-ethylhexyl)phthalate	µg/L	7.4	1.0	1.80	--	--	1.8	5.9	--	4	Yes, MEC > C
Bromoform	µg/L	19	< 0.18	4.3	--	--	4.3	360	--	--	Yes, MEC > C & B > C
Chloride	mg/L	~~496~~ 310	690	106	860 [1]	230 [1]	--	--	--	106 [6]	Yes, MEC > C & B > C
Chloroform	µg/L	79	0.4	80	--	--	--	--	--	80	Yes, MEC>C
Chromium (total)	µg/L	3.3	6	50	--	--	--	--	--	50	No
Copper	µg/L	6.8	7.1	9.6	14.6 [2]	9.6 [2]	1300	--	10.4	1300	No
Cyanide	µg/L	10	< 17	5.2	22	5.2	700	220,000	50	150	Yes, MEC > C
Dalapon	µg/L	0.55 [7]	< 0.30	110	--	--	--	--	--	--	No
Dibromochloromethane	µg/L	56	< 0.50	0.41	--	--	0.41	34	--	--	Yes, MEC > C
Dichlorobromomethane	µg/L	78	< 0.50	0.56	--	--	0.56	46	--	--	Yes, MEC > C
Fluoride	µg/L	~~1790~~ 560	500	2000	--	--	--	--	--	2000	No
Foaming Agents (MBAS)	µg/L	~~187~~ 74	< 100	500	--	--	--	--	--	500	No
Heptachlor	µg/L	0.023	< 0.005	~~0.036~~ 0.00021	~~0.086~~ [3] 0.52	~~0.036~~ [3] 0.0038	~~0.76~~ 0.00021	~~0.81~~ 0.00021	ND	ND	Yes
Iron	µg/L	~~2940~~ 800	2900	300	--	--	--	--	300	300	Yes, MEC>C & B > C
Lead	µg/L	1	1.9	2.8	70.9 [2]	2.8 [2]	--	--	--	15	No
Manganese	µg/L	~~47~~ 20	300	50	--	--	--	--	50	50	Yes, B > C
Mercury	µg/L	0.00365	20	0.05	reserved	reserved	0.05	0.051	--	2	Yes
Nickel	µg/L	5.8	5.2	55.9	504 [2]	55.9 [2]	--	--	--	100	No
Nitrate (as N)	mg/L	11	4.5	10	--	--	--	--	--	10	Yes, MEC > C
Pentachlorophenol	µg/L	0.065 [7]	0.097	0.28	5.5	--	0.28	8.2	--	1	No
Phosphorous	mg/L	~~2.9~~ 1.0	0.7	--	--	--	--	--	--	--	No
Selenium	µg/L	2.8	2.6	50	--	--	--	--		50	No
Specific Conductace (EC)	µS/cm	~~1830~~ 1242	1100	700	--	--	--	--	--	700 [6]	Yes, MEC>C & B > C
Sulfate	mg/L	216	180	250	--	--	--	--	--	250	No
Thallium	µg/L	<0.5 [7]	0.12	2	--	--	--	--	--	2	No
Total Dissolved Solids (TDS)	mg/L	~~1330~~ 840	780	450	--	--	--	--	--	450 [6]	Yes, MEC>C & B > C
Total Trihalomethane	µg/L	227	ND	80	--	--	--	--	--	80	Yes, MEC>C
Zinc	µg/L	10	10	100	126 [2]	127 [2]	--	--	100	5000	No

General Note: All inorganic concentrations are given as total recoverable.
MEC = Projected Maximum Effluent Concentration (calculated using multiplier from Table 3-1, TSD for non-CTR, or 1.0 for CTR).
B = Maximum Receiving Water Concentration or lowest detection level, if non-detect
C = Criterion used for Reasonable Potential Analysis
CMC = Criterion Maximum Concentration (CTR criterion unless otherwise noted)
CCC = Criterion Continuous Concentration (CTR criterion unless otherwise noted)
MCL = Drinking Water Standards Maximum Contaminant Levels
Basin Plan = Numeric Site-specific Basin Plan Water Quality Objective

Footnotes:
(1) USEPA National Recommended Ambient Water Quality Criteria
(2) Calculated using a receiving water hardness of 109 mg/L as $CaCO_3$.
(3) as Endrin
(4) Salmonids present and acute design pH of 8.5
(5) ELS present, chronic design pH of 7.8, and temperature of 26.5C
(6) Agricultural water quality goal
(7) Greatest reported value.

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18. In the Fact Sheet, Attachment F, Section VII.B.1. Reopener Provisions

Delete the following paragraph and renumber accordingly:

~~**d. Temperature (Special Provisions VI.C.1.d.).** This provision requires the discharger, after reaching 1.25 mgd discharge, to perform a study and to provide a technical report to demonstrate that the discharge is in full compliance with Thermal Plan requirements. Based upon the results of the study, the Regional Water Board may reopen this Order to incorporate additional findings and requirements, as appropriate~~.

Modify the following paragraph as follows**:**

g. Dilution Credits. As discussed in the Fact Sheet, Section IV.C.2.b., the Discharger has not provided adequate information for the allowance of dilution credits, ~~most importantly, real-time flow monitoring data in the vicinity of the discharge.~~ Should adequate data be developed and provided to RWQCB staff ~~The Discharger must provide real-time flow monitoring data and supporting mathematical modeling analysis in the vicinity of the discharge~~ demonstrating sufficient dilution is available ~~before~~ this Order may be reopened to allow dilution credits. Adequate ~~real-time flow monitoring~~ data ~~in the vicinity of the discharge~~ is a requirement for any consideration for the allowance of dilution credits for future permit decisions.

19. In the Fact Sheet, Attachment F, Section VII.B.3. Best Management Practices

Modify the paragraph as follows:

d. CWC section 13263.3(d)(3) Pollution Prevention Plans. The pollution prevention plans required for aluminum, ~~copper,~~ salinity, and mercury shall, at minimum, meet the requirements outlined in CWC section 13263.3(d)(3). The minimum requirements for the pollution prevention plans include the following:

20. In the Fact Sheet, Attachment F, Section VII.B.4.b. Compliance Schedules

Modify the paragraph as follows:

b. Compliance Schedule for Final Effluent Limitations for Aluminum (**Special Provisions VI.C.4.~~f~~b.**)**.** The Discharger shall comply with the time schedule to ensure compliance with the final effluent limitations for aluminum. The Basin Plan for the Sacramento and San Joaquin Rivers includes a provision that authorizes the use of compliance schedules in NPDES permits for water quality

objectives adopted after September 25, 1995. The water quality-based effluent limitations for aluminum are based on a new interpretation of the narrative standard for protection of receiving water beneficial uses. Therefore compliance schedule for compliance with the aluminum effluent limitations is established in the Order.