

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM ORDER NO. R5-2002-0210
(AMENDMENT NO. 1)

NPDES NO. CA0078662

FOR
EL DORADO IRRIGATION DISTRICT
DEER CREEK WASTEWATER TREATMENT PLANT
EL DORADO COUNTY

The Discharger shall not implement any changes to this Program unless and until the Regional Board or Executive Officer issues a revised Monitoring and Reporting Program. Specific sample station locations shall be established under direction of the Regional Board's staff, and a description of the stations shall be attached to this Order.

INFLUENT MONITORING

Samples shall be collected at approximately the same time as effluent samples and should be representative of the influent. Influent monitoring shall include at least the following:

<u>Constituent</u>	<u>Sampling Units</u>	<u>Type of Sample</u>	<u>Frequency</u>
20°C BOD ₅	mg/l, lbs/day	24 hr. Composite ¹	Twice Weekly
Total Suspended Solids	mg/l, lbs/day	24 hr. Composite ¹	Twice Weekly
Flow	mgd	Meter	Continuous

¹ 24-hour samples shall be flow proportional.

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall and after dechlorination. Effluent samples should be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Effluent monitoring shall include at least the following:

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Chlorine Residual^{5,6}	mg/l	Meter/Grab	Continuous/Weekly
(after dechlorination)	mg/l	Meter	Continuous/Weekly
Sodium Bisulfite^{5,6}	mg/l	Meter	Continuous/Weekly
Flow (effluent and reclamation)	mgd	Meter	Continuous
Turbidity	NTU	Meter ⁷	Continuous
pH	Number	Grab	Daily

T
E
N
T
A
T
I
V
E

A
M
E
N
D
M
E
N
T

T
E
N
T
A
T
I
V
E

A
M
E
N
D
M
E
N
T

<u>Constituents</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Settleable Solids	ml/l	Grab	Daily
Temperature	°F	Grab	Daily
20°C BOD ₅	mg/l, lbs/day	24 hr. Composite ¹	Five days/week
Suspended Solids	mg/l, lbs/day	24 hr. Composite ¹	Five days/week
Total Coliform Organisms	MPN/100 ml	Grab	Five days/week
Ammonia ³	mg/l	Grab	Weekly
Copper	µg/l	Grab	Weekly
Electrical Conductivity Weekly	µmhos/cm	Grab	
Hardness (as CaCO ₃)	mg/l	Grab	Weekly
Nitrate (N)	mg N/l	Grab	Weekly
Chloroform	µg/l	Grab	Bi-Monthly
Dichlorobromomethane	µg/l	Grab	Bi-Monthly
Dibromochloromethane	µg/l	Grab	Bi-Monthly
Total Trihalomethanes ⁸	µg/l	Grab	Bi-Monthly
Acute Toxicity ²	% Survival	Grab	Quarterly
EPA Priority Pollutants ⁴	µg/l	As appropriate	Bi-Annually
<u>Transmittance Average</u>	<u>percent</u>	<u>meter⁹</u>	<u>Continuous⁴⁰</u>
<u>Transmittance Minimum</u>	<u>percent</u>	<u>meter⁹</u>	<u>Continuous</u>
<u>Operational UV Dose</u>			
<u>Average</u>	<u>mW-s/cm²</u>	<u>calculation¹¹</u>	<u>30-minute Continuous</u>
<u>Operational UV Dose</u>			
<u>Minimum</u>	<u>mW-s/cm²</u>	<u>calculation¹¹</u>	<u>Continuous</u>
			<u>Intervals⁴²</u>
			<u>continuous</u>

¹ Composite samples shall be flow proportional.

² The bioassay shall be 96-hour acute toxicity tests conducted in accordance with EPA/600/4-90/027F, or later amendment approved by Board staff. The bioassay shall sample undiluted effluent after the [UV disinfection dechlorination](#) process and prior to discharge to Deer Creek. Larval stage rainbow trout (*Oncorhynchus mykiss*) shall be used as the test species. The bioassay shall be started on different days to assure representative sampling of the wastestream. Temperature and pH shall be recorded each day of the test.

³ Concurrent with bioassay, pH, and temperature monitoring.

⁴ EPA priority pollutants shall include NTR and CTR constituents and aluminum.

T
E
N
T
A
T
I
V
E

A
M
E
N
D
M
E
N
T

- 5 ~~Use of continuous monitoring instrumentation for chlorine and sodium bisulfite residual in the effluent is an appropriate method of process control, however, the accuracy of the chlorine analyzers are not low enough to meet minimum detection levels. Residual sodium bisulfite in the effluent indicates that chlorine is not present in the effluent, which can validate a zero residual reading on the chlorine analyzer. Reporting of these two constituents, when sodium bisulfite is present and chlorine is zero, sufficiently insures compliance with the chlorine residual limit, as long as the instruments are maintained and calibrated in accordance with the manufactures recommendations. In addition to the continuous recorder, a weekly grab sample of the effluent shall be analyzed by a certified laboratory for chlorine and sodium bisulfite. Readings from the residual analyzers shall be taken at the time of sampling, and reported with the laboratory results to validate the accuracy of the process control instrumentation.~~
- 6 ~~Report magnitude and duration of all non-zero residual events. Non-zero events are defined as a reading of zero for chlorine residual and sodium bisulfite is below the minimum detection limit of the continuous residual monitoring device. If the continuous monitoring device is out of service, then one grab chlorine residual sample shall be collected per day.~~
- 7 The turbidity meter shall be stationed immediately after the filters, prior to ~~chlorination and dechlorination~~ the UV disinfection process.
- 8 Total trihalomethanes is the sum of bromoform, bromodichloromethane, chloroform and dibromochloromethane.
- 9 The recorded data shall be maintained by the permittee for at least five years.
- 10 ~~Report daily average and lowest daily transmittance.~~
- 11 UV dose is calculated from UV transmittance and exposure time using lamp age and sleeve fouling factors.
- 12 ~~Report daily average and lowest daily operational UV dose.~~

If the discharge is intermittent rather than continuous, then on the first day of each such intermittent discharge, the Discharger shall monitor and record data for all of the constituents listed above, after which the frequencies of analysis given in the schedule shall apply for the duration of each such intermittent discharge. In no event shall the Discharger be required to monitor and record data more often than twice the frequencies listed in the schedule.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples. Receiving water monitoring shall include at least the following:

<u>Station</u>	<u>Description</u>
R-1	Gaging station upstream of the point of discharge at the first bridge crossing Deer Creek as part of the access road to the WWTP.
R-2	100 feet downstream of the confluence of the secondary channel and the main stem of Deer Creek.

<u>Constituents</u>	<u>Units</u>	<u>Station</u>	<u>Sampling Frequency</u>
Flow	mgd	Meter (R-1)	Continuous
Dissolved Oxygen	mg/l	R-1, R-2	Weekly
Electrical Conductivity	µmhos/cm	R-1, R-2	Weekly
Hardness (as CaCO ₃)	mg/l	R-1, R-2	Weekly
pH	Number	R-1, R-2	Weekly
Temperature	°F (°C)	R-1, R-2	Weekly
Turbidity	NTU	R-1, R-2	Weekly

Radionuclides	pCi/l	R-1, R-2	Annually
---------------	-------	----------	----------

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2. Notes on receiving water conditions shall be summarized in the monitoring report. Attention shall be given to the presence or absence of:

- | | |
|---------------------------------|--------------------------------------------|
| a. Floating or suspended matter | e. Visible films, sheens or coatings |
| b. Discoloration | f. Fungi, slimes, or objectionable growths |
| c. Bottom deposits | g. Potential nuisance conditions |
| d. Aquatic life | h. Foam |

TEMPERATURE SITE-SPECIFIC OBJECTIVE MONITORING

Regional Water Board Resolution No. R5-2003-0006, that amended the Basin Plan to add the site-specific temperature objectives for Deer Creek, directed the Executive Officer to modify this MRP to include temperature, flow and biological monitoring, consistent with Section 8.1.1 of the January 2003 basin plan amendment staff report. The Discharger shall perform the monitoring specified in Section 8.1.1 of the January 2003 staff report (MRP Attachment A). The discharger shall submit, within 60 days of adoption of the amended MRP, a technical report that includes a monitoring plan and schedule that demonstrates compliance with Section 8.1.1.

THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to Deer Creek. The testing shall be conducted as specified in EPA 600/4-91-002. Chronic toxicity samples shall be collected at the discharge of the wastewater treatment plant prior to its entering Deer Creek. Composite (24-hour) samples shall be representative of the volume and quality of the discharge. The effluent tests must be conducted with concurrent reference toxicant tests. Monthly laboratory reference toxicant tests may be substituted upon approval. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic manual. If the test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. Chronic toxicity monitoring shall include the following:

Species: Pimephales promelas, Ceriodaphnia dubia, and Selenastrum capricornutum
 Frequency: Four times per year

T
E
N
T
A
T
I
V
E

A
M
E
N
D
M
E
N
T

Dilution Series:

	<u>Dilutions (%)</u>					<u>Controls</u>	
	<u>100</u>	<u>75</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	<u>Creek Water</u>	<u>Lab Water</u>
% WWTP Effluent		100	75	50	25	12.5	0
0 % Dilution Water ¹		0	25	50	75	87.5	100
0 % Lab Water ²	0	0	0	0	0	0	100

¹ Dilution water shall be receiving water from Deer Creek taken upstream from the discharge point. The dilution series may be altered upon approval of Board staff.

SLUDGE MONITORING

A composite sample of sludge shall be collected annually in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document, August 1989*, and tested for the following metals:

- | | |
|----------|--------|
| Cadmium | Lead |
| Chromium | Nickel |
| Copper | Zinc |

Mercury Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

REPORTING

Monitoring results shall be submitted to the Regional Board by the **first day** of the second month following sample collection. Quarterly and annual monitoring results shall be submitted by the **first day of the second month following each calendar quarter, semi-annual period, and year**, respectively.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages, and medians, and removal efficiencies (%) for BOD and Suspended Solids, should be determined and recorded.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation

T
E
N
T
A
T
I
V
E

A
M
E
N
D
M
E
N
T

and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **30 January of each year**, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names, certificate grades, and general responsibilities of all persons employed at the WWTP (Standard Provision A.5).
- b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
- c. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
- d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

The Discharger may also be requested to submit an annual report to the Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Discharger shall implement the above monitoring program on the first day of the month following effective date of this Order.

Ordered by: THOMAS R. PINKOSPAMELA
CREEDON, Executive Officer
6-XX December January 20026
(Date)

T
E
N
T
A
T
I
V
E

A
M
E
N
D
M
E
N
T