

COLORADO DISCHARGE PERMIT SYSTEM (CDPS)

SUMMARY OF RATIONALE

OAK MEADOWS SERVICE COMPANY, OAK MEADOWS WWTF

CDPS PERMIT NUMBER CO-0045802, GARFIELD COUNTY

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- I. TYPE OF PERMIT *First Renewal*
- II. FACILITY INFORMATION
- A. Facility Type: *Domestic- Minor Municipal, Mechanical Plant*
- B. Facility Classification: *Class C per Section 100.5.2 of the Regulations for Certification of Water Treatment Plant and Wastewater Treatment Plant Operators.*
- C. Fee Category: *Domestic Wastewater - Mechanical Plants, Category 21, Subcategory 2*
Category Flow Range: *Sewage from 20,000 up to 49,999 gpd*
Annual Fee: *\$701 effective July 1, 2005*
- D. Legal Contact: *Ralph Delaney, Secretary and Treasurer*
Oak Meadows Service Company
PO Box 1298
Glenwood Springs, CO 81602
(970) 945-6556
- E. Facility Contact: *Scott Leslie*
Oak Meadows Service Company
0102 Oakway North
Glenwood Springs, CO 81601
(970) 963-8393
- F. Facility Location: *SE 1/4 of the NW 1/4 of Section 15, T7S, R89W*
- G. Discharge Point: *Outfall 001A, following UV disinfection and prior to mixing with Fourmile Creek..*

ISSUED JUNE 16, 2006 EFFECTIVE AUGUST 1, 2006 EXPIRATION JULY 31, 2011

III. RECEIVING STREAM

An assessment of the stream standards, low flow data, and ambient stream data has been performed to determine the assimilative capacities for Fourmile Mile Creek for potential pollutants of concern. This information, which is contained in Appendix A to this rationale, also includes an antidegradation review, where appropriate. The Division's Permits Unit has reviewed the assimilative capacities to determine the appropriate water quality-based effluent limitations as well as potential limits based on the antidegradation evaluation, where applicable. The limitations based on the assessment and other evaluations conducted as part of this rationale can be found in Table VI-1 of this rationale.

Outfall 001A will continue to be the authorized discharge point to the receiving stream.

IV. FACILITIES EVALUATION

A. Infiltration/Inflow (I/I)

No infiltration/inflow problems have been documented in the service area.

B. Lift Stations

There are no lift stations in the service area.

C. Facility Modifications and Resulting Changes in Capacity

This facility consists of a manual bar screen, an auto screen, a continuous influent flow recorder, an aeration basin, a clarifier, an effluent filter and ultraviolet disinfection. Site Application #4350 for this facility was approved on January 20, 1998. The permittee has not performed any construction at this facility that would change the hydraulic capacity of 0.035 MGD or the organic capacity of 200 lbs BODs/day, which were specified in the rationale for the previous permit. That document should be referred to for this information. These capacities will continue in this permit. Also, several variances to Design Criteria were requested and were granted and will be continued in this permit. They are:

1. Polishing ponds shall be provided for all treatment plants where the average daily flow is less than 250,000 gallons per day. A radial filter was substituted for the polishing pond.
2. The return activated sludge line lacks flow measurement.
3. The clarifier lacks mechanical sludge collection and pickup.

C. Biosolids Treatment and Disposal

Biosolids are treated in an aerobic digester that is periodically pumped and transported to West Glenwood Regional Sludge Management Facility for processing.

1. EPA General Permit

EPA Region 8 issued a General Permit (effective August 16, 2002) for Colorado facilities whose operations generate, treat, and/or use/dispose of sewage sludge by means of land application, landfill, and surface disposal under the National Pollutant Discharge Elimination System. All Colorado facilities are required to apply for and to obtain coverage under the EPA General Permit.

2. Biosolids Regulation (Regulation No. 64, Colorado Water Quality Control Commission)

While the EPA is now the issuing agency for biosolids permits, Colorado facilities that land apply biosolids must comply with requirements of Regulation No. 64, such as the submission of annual reports as discussed later in this rationale.

V. PERFORMANCE HISTORY

A. Monitoring Data

1. Table V-1 summarizes the effluent data reported on the monthly Discharge Monitoring Reports (DMRs) for the Oak Meadows Service Company WWTF from November, 2003 through October, 2005.

Table V-1 - Summary of DMR Data

Parameter	# Samples or Reporting Periods	Reported Average Concentrations Avg/Min/Max	Reported Maximum Concentrations Avg/Min/Max	Calculated Maximum Rolling Average	Previous Avg/Max Permit Limit	Number of Limit Excursions
Influent Flow (MGD)	24	0.011/0.009/0.021	0.013/0.01/0.03	NA	0.035*/NA	0
Effluent Flow (MGD)	24	0.011/0.009/0.021	0.013/0.01/0.03	NA	NA/NA	0
pH (su)	24	7.5/7.3/7.7	7.6/7.39/7.9	NA	6.5-9	0
Fecal Coliform (#/100 ml)	24	24/1/164	61/1/450	NA	457/914**	0
TRC (mg/l)	24	0/0/0	0/0/0	NA	0.019	0
NH3, Tot (mg/l) Jan	2	2.1/0.2/4	2.2/0.3/4	NA	8.9/7.1	0
NH3, Tot (mg/l) Feb	2	0.0085/0/0.017	0.013/0/0.025	NA	8.4/6.8	0
NH3, Tot (mg/l) Mar	2	0.55/0.09/1	0.58/0.15/1	NA	9.6/7.8	0
NH3, Tot (mg/l) Apr	2	0.055/0/0.11	0.065/0/0.13	NA	9.6/7.9	0
NH3, Tot (mg/l) May	2	0.58/0.15/1	0.62/0.24/1	NA	16.8/15.6	0
NH3, Tot (mg/l) Jun	2	0.07/0/0.14	0.15/0/0.3	NA	3.4/NA	0
NH3, Tot (mg/l) Jul	2	0.03/0/0.06	0.035/0/0.07	NA	1.5/NA	0
NH3, Tot (mg/l) Aug	2	0.65/0.3/1	0.65/0.3/1	NA	1.9/NA	0
NH3, Tot (mg/l) Sep	2	0.025/0/0.05	0.65/0.3/1	NA	1.4/NA	0
NH3, Tot (mg/l) Oct	2	0.74/0.48/1	0.94/0.87/1	NA	2.8/2.5	0
NH3, Tot (mg/l) Nov	2	0.5/0/1	0.5/0/1	NA	6.2/4.1	0
NH3, Tot (mg/l) Dec	2	0.71/0.41/1	0.5/0/1	NA	7.4/5.8	0
BOD5, influent (lbs/day)	24	20/11/34	27/14/62	NA	NA/NA	0
BOD5, influent (mg/l)	24	211/133/275	244/140/298	NA	NA/NA	0
BOD5, effluent (mg/l)	24	2.2/1/4	2.8/1/6	NA	30/45	0
BOD5 (% removal)	24	99/97/99	NA/NA/NA	NA	85/NA	0
TSS, influent (mg/l)	24	153/98/301	200/104/450	NA	NA/NA	0
TSS, effluent (mg/l)	24	4.9/2/11	6.9/2/18	NA	30/45	0
TSS (% removal)	24	96/88/99	NA/NA/NA	NA	85/NA	0
Oil and Grease (mg/l)	24	0/0/0	0/0/0	NA	NA/10	0
TDS, effluent (mg/l)	8	491/207/814	534/213/820	NA	NA/NA	0
TDS, public intake (mg/l)	8	236/159/341	257/178/343	NA	NA/NA	0

* This is a facility capacity and not a permit limit.

** Geometric mean

NA means Not Applicable

2. There are no recent state sampling results available for this facility.

B. Compliance With Terms and Conditions of Previous Permit

The data shown in the preceding tables indicates that the Oak Meadows Service Company WWTF has maintained compliance with the previous permit.

The permittee has been in apparent compliance with all other terms and conditions of the permit.

VI. TERMS AND CONDITIONS OF PERMIT

A. Determination of Effluent Limitations

1. Effluent Limitations – The effluent limitations contained in Table VI-1 will apply and are discussed in Sections including VI.A.2.d (limits based on water quality) and VI.A.2.e. (limits based on antidegradation).

Table VI-1 - Effluent Limits

Parameter	Limit	Rationale
Flow, MGD	0.035/Report a	Design Capacity
BOD ₅ , mg/l	30/45 b	State Effluent Regulations
TSS, mg/l	30/45 b	State Effluent Regulations
Fecal Coliform, no/100 ml	457/914 c	NIL / Water Quality Standards
TRC, mg/l	Report/0.019 e	Water Quality Standards
pH, s.u.	6.5-9.0 d	Water Quality Standards
Oil and Grease, mg/l	10 f	State Effluent Regulations
Total Ammonia (as N), mg/l		
January	8.9/Report e	NIL / Water Quality Standards
February	8.4/Report e	NIL / Water Quality Standards
March	9.6/Report e	NIL / Water Quality Standards
April	9.6/Report e	NIL / Water Quality Standards
May	16.8/Report e	NIL / Water Quality Standards
June	3.4/Report e	NIL / Water Quality Standards
July	1.5/Report e	NIL / Water Quality Standards
August	1.9/30 e	NIL / Water Quality Standards
September	1.4/27 e	NIL / Water Quality Standards
October	2.8/Report e	NIL / Water Quality Standards
November	6.2/Report e	NIL / Water Quality Standards
December	7.4/Report e	NIL / Water Quality Standards
TDS, mg/l	Report/Report e	Salinity Regulations

^a 30-day average (This is a design capacity, not a permit limit)/daily maximum

^b 30-day average/7-day average

^c 30-day geometric mean/7-day geometric mean

^d Minimum-Maximum

^e 30-day average/daily maximum

^f Daily maximum

2. Discussion of Effluent Limitations

- a. BOD₅, TSS, Oil & Grease, pH and total residual chlorine – The Regulations for Effluent Limitations (Regulation No. 62) include effluent limitations that apply to all discharges of wastewater to State waters. These regulations are applicable to the discharge from the Oak Meadows Service Company WWTF.

The BODs, TSS, and Oil & Grease concentrations from the Regulations for Effluent Limitations are the most stringent effluent limits and are therefore applied. The 85% removal percentages for BODs and TSS also apply based on the Regulations for Effluent Limitations.

The pH and total residual chlorine concentrations specified in the Regulations for Effluent Limitations are not the most stringent and thus are not used as discussed below.

These limitations are the same as those contained in the previous permit and are imposed effective immediately.

- b. pH – This parameter is limited by the water quality standards of 6.5-9.0 s.u., as this range is more stringent than the range specified under the Regulations for Effluent Limitations.
- c. Pollutants Limited by Water Quality Standards – The water quality assessment in Appendix A contains the evaluation of pollutants limited by water quality standards. The mass balance equation shown in Section IV of Appendix A was used for most pollutants to calculate the maximum allowable effluent concentration, M_2 , that could be discharged without causing the water quality standard to be violated. For ammonia, the Colorado Ammonia Model was used to determine the maximum assimilative capacity of the receiving stream. A detailed discussion of the calculations for the maximum allowable concentrations for fecal coliform, total residual chlorine and ammonia, is provided in Section IV of the water quality assessment contained in Appendix A.

The maximum allowable effluent pollutant concentrations determined as part of these calculations represent the calculated effluent limits that would be protective of water quality. These are also known as the water quality-based effluent limits (WQBELs). Both acute and chronic WQBELs may be calculated based on acute and chronic standards, and these may be applied as daily maximum (acute) or 30-day average (chronic) limits

The Permits Unit evaluated the calculated WQBELs and has made a determination as to whether there is a reasonable potential for the facility discharge to cause or contribute to an exceedance of a stream standard. If there is a reasonable potential for the discharge to contribute to an exceedance, effluent limits are included in the permit.

For fecal coliform, total residual chlorine and ammonia, ancillary and/or additional treatment technologies are often employed to reduce the concentrations of these pollutants. A facility may currently discharge these pollutants at low level concentrations to meet effluent limitations and therefore their effluent discharge shows no reasonable potential to cause or contribute to exceedances of in-stream standards. However, absent limitations, a facility may no longer continue such pollutant reductions and therefore the discharge will have reasonable potential. For this reason, the Permits Unit has made a qualitative determination that absent effluent limitations, there is reasonable potential for these pollutants to cause or contribute to exceedances of water quality standards and therefore fecal coliform, total residual chlorine and ammonia WQBELs will be imposed based on the discussions of applicable limitations in the following paragraphs

- i. Fecal Coliform – The Water Quality Control Commission has adopted standards for both fecal coliform and E. Coli and intends that dischargers will have the option of either parameter being used in establishing their effluent limits. For this facility, fecal coliform limits were selected.

Although the fecal coliform WQBELs calculated for the Oak Meadows Service Company WWTF would potentially be imposed as permit limits, the more stringent non-impact limits were imposed based on the antidegradation analysis discussed in later paragraphs.

- ii. Total Residual Chlorine – Although the total residual chlorine WQBELs calculated for the Oak Meadows Service Company WWTF would potentially be imposed as permit limits, the more stringent non-impact limits were imposed based on the antidegradation analysis discussed in later paragraphs.
- iii. Allowable In-Stream Total Ammonia – In order to ensure the in-stream standard for un-ionized ammonia will be protected, effluent limitations for total ammonia were evaluated. To do so, two processes which occur simultaneously in the receiving stream below the discharge point were considered: 1) the reduction in total

ammonia through nitrification and other removal mechanisms, and 2) the change in the percentage of un-ionized ammonia due to in-stream pH and temperature recovery.

In-stream pH and temperature recovery and ammonia removal were simulated using the Colorado Ammonia Model, which also accounts for the diurnal variation of stream pH and temperature. The model calculates monthly values of maximum allowable in-stream total ammonia that will protect the in-stream un-ionized ammonia standard and locates the point on the stream where such values are at a minimum - which is referred to as the "critical point". The approach used to model the Oak Meadows Service Company WWTF is further discussed at the end of Section IV in the water quality assessment contained in Appendix A.

From these analyses, maximum allowable in-stream total ammonia concentrations have been estimated. A further discussion of these calculations is found at the end of Section IV in the water quality assessment contained in Appendix A.

According to the model results found at the end of Section IV in the water quality assessment contained in Appendix A, the chronic assimilative capacities (30-day average WQBELs) ranged from 5 mg/l to 30 mg/l, and the acute assimilative capacities (daily maximum WQBELs) were all greater than 30 mg/l, except for the month of September where the acute value was calculated to be 27 mg/l. Because treated domestic sewage from this facility is not expected to have ammonia concentrations greater than 30 mg/l, no daily maximum ammonia limitations are necessary from January through July and October through December and Report only is specified for these months.

Although the ammonia WQBELs calculated for the Oak Meadows Service Company WWTF would potentially be imposed as permit limits, the more stringent non-impact limits were imposed based on the antidegradation analysis discussed in later paragraphs.

- d. Antidegradation – Since the receiving water is Undesignated, an antidegradation review is required pursuant to Section 31.8 of The Basic Standards and Methodologies for Surface Water. As set forth in Section V of the water quality assessment contained in Appendix A, an antidegradation review was conducted for pollutants when water quality impacts occurred and when the impacts were significant. Based on the antidegradation review requirements and the reasonable potential analysis discussed above, antidegradation-based average concentrations (ADBACs) were potentially applicable only for fecal coliform and ammonia.

According to WQCD procedures, the facility has three options related to antidegradation-based effluent limits: (1) the facility may accept ADBACs as permit limits (see Section V of Appendix A); (2) the facility may select permit limits based on their non-impact limit (NIL), which would result in the facility not being subject to an antidegradation review and thus the antidegradation-based average concentrations would not apply (the NILs are also contained in Section V of Appendix A); or (3) the facility may complete an alternatives analysis as set forth in Section 31.8(3)(d) of the regulations which would result in alternative antidegradation-based effluent limitations.

The effluent must not cause or contribute to an exceedance of a water quality standard and therefore the WQBEL must be selected if it is lower than the NIL. Where the WQBEL is not the most restrictive, the discharger may choose between the NIL or the ADBAC: the NIL results in no increased water quality impact; the ADBAC results in an "insignificant" increase in water quality impact.

For fecal coliform and ammonia, the NILs would be the most likely selection. Therefore, for purposes of this permit's development, the NILs for these pollutants are imposed in lieu of the corresponding WQBEL and therefore ADBACs do not apply. These were previously reflected in Table VI-1.

- e. Colorado Mixing Zone Regulations – Pursuant to section 31.10 of The Basic Standards and Methodologies for Surface Water, a mixing zone determination is required for this permitting action. The Colorado Mixing Zone Implementation Guidance, dated April 2002, identifies the process for determining the meaningful limit on the area impacted by a discharge to surface water where standards may be exceeded (i.e., regulatory mixing zone). This guidance document provides for certain exclusions from further analysis under the regulation, based on site-specific conditions.

The guidance document provides a mandatory, stepwise decision-making process for determining if the permit limits will not be affected by this regulation. Exclusion, based on Extreme Mixing Ratios, may be granted if the ratio of the design flow to the chronic low flow (30E3) is greater than 2:1 or if the ratio of the chronic low flow to the design flow is greater than 20:1. Since the ratio of the design flow to the low flow is 0.42:1 and the low flow to the design flow is 2.4:1, the permittee is not eligible for an exclusion from further analysis under the regulation.

The remaining threshold tests require site-specific information that is currently not available and thus a determination cannot be made about how the regulation may affect the setting of effluent limits in this permit. Therefore, a compliance schedule is necessary for acquisition of this information, which will be used to complete the testing of exclusion thresholds before the next permit renewal.

- f. Economic Reasonableness Evaluation – Section 25-8-503(8) of the revised (June 1985) Colorado Water Quality Control Act required the Division to "determine whether or not any or all of the water quality standard based effluent limitations are reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons, and are in furtherance of the policies set forth in sections 25-8-192 and 25-8-104."

The Colorado Discharge Permit System Regulations, Regulation No. 61, further define this requirement under 61.11 and state: "Where economic, environmental, public health and energy impacts to the public and affected persons have been considered in the classifications and standards setting process, permits written to meet the standards may be presumed to have taken into consideration economic factors unless:

- i. A new permit is issued where the discharge was not in existence at the time of the classification and standards rulemaking, or
- ii. In the case of a continuing discharge, additional information or factors have emerged that were not anticipated or considered at the time of the classification and standards rulemaking."

The Water Quality Control Commission, during their proceedings to adopt the Classifications and Numeric Standards for Upper Colorado River Basin and North Platte River (Planning Region 12), considered the economic reasonableness of imposing the classification and standards discussed in Section II of Appendix A. Since this is not a new discharger and no new information has been presented regarding the classifications and standards, the water quality standard-based effluent limitations of this permit are determined to be reasonably related to the economic, environmental, public health and energy impacts to the public and affected persons in accordance with Section 61.11 of the Colorado Discharge Permit System Regulations. If the permittee disagrees with this finding, pursuant to 61.11(b)(ii), the permittee should submit all pertinent information to the Division during the public notice period.

B. Monitoring

1. Influent and Effluent Monitoring – Influent and effluent monitoring will be required as shown in Tables VI-2 and VI-3. Refer to the permit for locations of monitoring points.

Table VI-2 - Influent Monitoring Requirements - Outfall 3001

Parameter	Measurement Frequency	Sample Type
Raw Water Total Dissolved Solids, TDS, mg/l	Quarterly j/	Grab*
Influent Flow, MGD	Continuous	Recorder **
Influent BODs, mg/l	Monthly	Composite
Influent Total Suspended Solids, mg/l	Monthly	Composite

* If more than one source is being utilized, a composite sample proportioned to flow shall be prepared from individual grab samples.
 ** Report both influent and effluent flow, even if only one flow measuring device is installed. See footnote h/ in the permit.

Table VI-3 - Effluent Monitoring Requirements - Outfall 001A

Parameter	Measurement Frequency	Sample Type
Flow, MGD *	Continuous	Recorder
BOD ₅ , mg/l	Monthly	Composite
TSS, mg/l	Monthly	Composite
Fecal Coliform, no/100 ml	Monthly	Grab
TRC, mg/l ***	Weekly	Grab
pH, s.u.	Weekly	Grab
Oil and Grease, mg/l **	Weekly	Visual
Total Ammonia (as N), mg/l	Monthly	Composite
TDS, mg/l	Quarterly	Grab

* Report both influent and effluent flow, even if only one flow measuring device is installed. See footnote h/ in the permit.

** If a visible sheen is noted, a grab sample shall be collected and analyzed for oil and grease. The results are to be reported on the DMR under parameter 03582.

*** Monitoring is required only when in use.

The monitoring requirements for this renewal are reduced from the previous permit due to the fact that when the plant initially came on-line, there were questions concerning the technological ability of what was then a new type of plant. The Aero-Mod plant has proven itself capable of treating effluent to levels specified in the permit and as a result, monitoring frequencies have been reduced to comparable levels of similar plants across the state. These levels are based on the monitoring requirements contained in the State's Water Quality Permits Policies and Procedures, Sample Frequency and Sample Type, Domestic Wastewater Treatment Facilities, and apply to plants of similar size.

2. Salinity Monitoring – In compliance with the Colorado River Salinity Standards (Regulation No. 39) and Section 61.8(2)(l) of the Colorado Discharge Permit System Regulations (Regulation No. 61), the permittee shall monitor for salinity on a Quarterly basis. Samples shall be taken at both the raw (potable) water supply intake prior to any treatment and at the wastewater discharge point. Salinity requirements are included in Part I, Section B.3 of the permit.

Based on an annual average of the past sampling data submitted, this permittee does not exceed the average annual incremental increase of 400 mg/l or less. Therefore, no special reports are required and Quarterly monitoring, as required by the regulation, will continue.

3. Pretreatment Program

The permittee is not required to maintain a formal pretreatment program. However, conditions for industrial waste management conditions will be included in the permit.

4. Whole Effluent Toxicity (WET) Testing - Biomonitoring – The Oak Meadows Service Company wastewater treatment facility does not receive a significant volume of toxic or industrial wastes and, in accordance with Regulation No. 61 Section 61.8(2)(b)(i)(B) of the Colorado Discharge Permit System Regulations, the discharge does not have the reasonable potential to cause, or measurably contribute to, an excursion above any narrative standards for water

quality. Therefore, WET testing is not a requirement of this permit. However, the Division reserves the right to reopen the permit to include WET testing, should facility conditions change or if new information becomes available.

C. Reporting

1. Discharge Monitoring Report – The permittee must submit a Discharge Monitoring Report (DMR) monthly to the Division. This report will contain the test results for parameters shown in Table VI-1 of this rationale and Part I, Section B of the permit. The DMR form shall be completed and submitted in accordance with Part I, Section D.2 of the permit.
2. Special Reports - Special reports are required in the event of a spill, bypass, or other noncompliance. Please refer to Part I, Section D.4 of the permit for reporting requirements.

D. Additional Terms and Conditions

1. Signatory Requirements - Signatory requirements for reports and submittals are discussed in Part I, Section D.1 of the permit.
2. Compliance Schedules:

All information and written reports required by the following compliance schedules should be directed to the Permits Unit for final review unless otherwise stated.

- a. Mixing Zone Analyses – Conduct remaining threshold tests for exclusion from further analysis under Mixing Zone Regulations. The second threshold test is the Application of the Mixing Zone Exclusion Tables (p. 20, Colorado Mixing Zone Implementation Guidance, February 2002). Under this compliance action, the permittee will collect the necessary site-specific data, perform the required analysis, and provide a report to the Division. The report will indicate the findings of this threshold test and, if not excluded, provide the workplan for the next threshold test (i.e., determining of the size of the physical and regulatory mixing zones).

Code	Event	Description	Permit Citation	Due Date
50008	Submit Study Results	Collect site-specific data, perform threshold tests based on Mixing Zone Exclusion Tables, and submit study results.	Part I.A.7	01/31/07

E. Reopener, Permit Renewal and Fee Information

1. The permit may be modified, suspended, or revoked in whole or in part during its term for reasons outlined in Part II, Section B.8 of the permit.
2. Requirements for permit renewal are discussed in Part II, Section B.9 of the permit.
3. Permit fee requirements are outlined in Part II, Section B.11 of the permit. An annual fee must be paid to the Water Quality Control Division to maintain the status of your permit.

VII. REFERENCES

- A. Colorado Department of Public Health and Environment, Water Quality Control Division Files.
- B. "Design Criteria for Wastewater Treatment Works", Colorado Department of Public Health and Environment, Water Quality Control Commission, December 1994.
- C. "Basic Standards and Methodologies for Surface Water", Regulation No. 31, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 22, 2005.

- D. "Classifications and Numeric Standards for Upper Colorado River Basin and North Platte River (Planning Region 12)", Regulation No. 33, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective January 20, 2004.
- E. "Colorado Discharge Permit System Regulations", Regulation No. 61, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective May 30, 2005.
- F. "Regulations for Effluent Limitations", Regulation No. 62, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective December 30, 1998.
- G. "Pretreatment Regulations", Regulation No. 63, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective November 30, 2003.
- H. "Biosolids Regulation", Regulation No. 64, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective June 30, 2003.
- I. "Colorado Total Maximum Daily Load and Wasteload Allocation Guidance", Colorado Department of Public Health and Environment, Water Quality Control Division, effective November 1991.
- J. "Colorado River Salinity Standards", Regulation No. 39, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective August 30, 1997.
- K. "Water Quality Permits Policies and Procedures: Sample Frequency and Sample Type Domestic Wastewater Treatment Facilities," Colorado Department of Public Health and Environment, Water Quality Control Division, effective November August 21, 1989.
- L. "Procedure for Selection of Fecal Coliform Limitations Permit Conditions," Colorado Department of Public Health and Environment, Water Quality Control Division, effective April 7, 1976.
- M. "Antidegradation Significance Determination for New or Increased Water Quality Impacts, Procedural Guidance," Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2001.
- N. "Determination of the Requirement to Include Water Quality Standards-Based Limits in CDPS Permits Based on Reasonable Potential", Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2002.

John K. Nieland
January 10, 2006

VIII. PUBLIC NOTICE COMMENTS

Comments were received from EPA Region VIII

Comment: In light of upcoming standards promulgated by the Colorado Water Quality Control Commission that will phase out monitoring for fecal coliforms and replace those standards with E. coli standards, EPA feels that the Division could impose monitoring for E. coli during the current permit cycle and thereby gain a baseline data-set that would be beneficial to permit limit determinations in the next permit cycle.

Response: While the Division agrees that collection of data would be helpful in determining E. coli permit limits in the future, there is not presently regulatory authority to require a discharger to monitor E. coli solely for the purpose of data collection. The permittee was given the option of monitoring for fecal coliform or E. coli and chose to continue monitoring for fecals. This too will suffice, should the permittee decide not to monitor E. coli, as the test sensitivity for E. coli is greater than that for fecal coliform. As such, reportable values for fecal coliforms are anticipated to approximate those of E. coli given the discrepancy in test sensitivities. For this reason the Division can be reasonably confident in utilizing fecal coliform data to determine the ability of the WWTP to meet E. coli limitations in the next permit.

***John K. Nieland
April 3, 2006***

quality. Therefore, WET testing is not a requirement of this permit. However, the Division reserves the right to reopen the permit to include WET testing, should facility conditions change or if new information becomes available.

C. Reporting

1. Discharge Monitoring Report – The permittee must submit a Discharge Monitoring Report (DMR) monthly to the Division. This report will contain the test results for parameters shown in Table VI-1 of this rationale and Part I, Section B of the permit. The DMR form shall be completed and submitted in accordance with Part I, Section D.2 of the permit.
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D. Additional Terms and Conditions

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- a. Mixing Zone Analyses – Conduct remaining threshold tests for exclusion from further analysis under Mixing Zone Regulations. The second threshold test is the Application of the Mixing Zone Exclusion Tables (p. 20, Colorado Mixing Zone Implementation Guidance, February 2002). Under this compliance action, the permittee will collect the necessary site-specific data, perform the required analysis, and provide a report to the Division. The report will indicate the findings of this threshold test and, if not excluded, provide the workplan for the next threshold test (i.e., determining of the size of the physical and regulatory mixing zones).

Code	Event	Description	Permit Citation	Due Date
50008	Submit Study Results	Collect site-specific data, perform threshold tests based on Mixing Zone Exclusion Tables, and submit study results.	Part I.A.7	01/31/07

E. Reopener, Permit Renewal and Fee Information

1. The permit may be modified, suspended, or revoked in whole or in part during its term for reasons outlined in Part II, Section B.8 of the permit.
2. Requirements for permit renewal are discussed in Part II, Section B.9 of the permit.
3. Permit fee requirements are outlined in Part II, Section B.11 of the permit. An annual fee must be paid to the Water Quality Control Division to maintain the status of your permit.

VII. REFERENCES

- A. Colorado Department of Public Health and Environment, Water Quality Control Division Files.
- B. “Design Criteria for Wastewater Treatment Works”, Colorado Department of Public Health and Environment, Water Quality Control Commission, December 1994.
- C. “Basic Standards and Methodologies for Surface Water”, Regulation No. 31, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective March 22, 2005.
- D. “Classifications and Numeric Standards for Upper Colorado River Basin and North Platte River (Planning Region 12)”, Regulation No. 33, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective January 20, 2004.

- E. "Colorado Discharge Permit System Regulations", Regulation No. 61, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective May 30, 2005.
- F. "Regulations for Effluent Limitations", Regulation No. 62, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective December 30, 1998.
- G. "Pretreatment Regulations", Regulation No. 63, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective November 30, 2003.
- H. "Biosolids Regulation", Regulation No. 64, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective June 30, 2003.
- I. "Colorado Total Maximum Daily Load and Wasteload Allocation Guidance", Colorado Department of Public Health and Environment, Water Quality Control Division, effective November 1991.
- J. "Colorado River Salinity Standards", Regulation No. 39, Colorado Department of Public Health and Environment, Water Quality Control Commission, effective August 30, 1997.
- K. "Water Quality Permits Policies and Procedures: Sample Frequency and Sample Type Domestic Wastewater Treatment Facilities," Colorado Department of Public Health and Environment, Water Quality Control Division, effective November August 21, 1989.
- L. "Procedure for Selection of Fecal Coliform Limitations Permit Conditions," Colorado Department of Public Health and Environment, Water Quality Control Division, effective April 7, 1976.
- M. "Antidegradation Significance Determination for New or Increased Water Quality Impacts, Procedural Guidance," Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2001.
- N. "Determination of the Requirement to Include Water Quality Standards-Based Limits in CDPS Permits Based on Reasonable Potential", Colorado Department of Public Health and Environment, Water Quality Control Division, effective December 2002.

*John K. Nieland
January 10, 2006*

VIII. PUBLIC NOTICE COMMENTS

Comments were received from EPA Region VIII

Comment: *In light of upcoming standards promulgated by the Colorado Water Quality Control Commission that will phase out monitoring for fecal coliforms and replace those standards with E. coli standards, EPA feels that the Division could impose monitoring for E. coli during the current permit cycle and thereby gain a baseline data-set that would be beneficial to permit limit determinations in the next permit cycle.*

Response: *While the Division agrees that collection of data would be helpful in determining E. coli permit limits in the future, there is not presently regulatory authority to require a discharger to monitor E. coli solely for the purpose of data collection. The permittee was given the option of monitoring for fecal coliform or E. coli and chose to continue monitoring for fecals. This too will suffice, should the permittee decide not to monitor E. coli, as the test sensitivity for E. coli is greater than that for fecal coliform. As such, reportable values for fecal coliforms are anticipated to approximate those of E. coli given the discrepancy in test sensitivities. For this reason the Division can be reasonably confident in utilizing fecal coliform data to determine the ability of the WWTP to meet E. coli limitations in the next permit.*

*John K. Nieland
April 3, 2006*

quality. Therefore, WET testing is not a requirement of this permit. However, the Division reserves the right to reopen the permit to include WET testing, should facility conditions change or if new information becomes available.

C. Reporting

1. Discharge Monitoring Report – The permittee must submit a Discharge Monitoring Report (DMR) monthly to the Division. This report will contain the test results for parameters shown in Table VI-1 of this rationale and Part I, Section B of the permit. The DMR form shall be completed and submitted in accordance with Part I, Section D.2 of the permit.
2. Special Reports - Special reports are required in the event of a spill, bypass, or other noncompliance. Please refer to Part I, Section D.4 of the permit for reporting requirements.

D. Additional Terms and Conditions

1. Signatory Requirements - Signatory requirements for reports and submittals are discussed in Part I, Section D.1 of the permit.
2. Compliance Schedules:

All information and written reports required by the following compliance schedules should be directed to the Permits Unit for final review unless otherwise stated.

- a. Mixing Zone Analyses – Conduct remaining threshold tests for exclusion from further analysis under Mixing Zone Regulations. The second threshold test is the Application of the Mixing Zone Exclusion Tables (p. 20, Colorado Mixing Zone Implementation Guidance, February 2002). Under this compliance action, the permittee will collect the necessary site-specific data, perform the required analysis, and provide a report to the Division. The report will indicate the findings of this threshold test and, if not excluded, provide the workplan for the next threshold test (i.e., determining of the size of the physical and regulatory mixing zones).

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