

## DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

### Water Quality Control Commission

## REGULATION NO. 85 - NUTRIENTS MANAGEMENT CONTROL REGULATION

### 5 CCR 1002-85

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#### 85.1 AUTHORITY

The Water Quality Control Commission is authorized by section 25-8-205 C.R.S., to promulgate control regulations to describe prohibitions, standards, concentrations, and effluent limitations on the extent of specifically identified pollutants that any person may discharge into any specific class of state waters.

Materials incorporated by reference are available for public inspection during normal business hours, or copies may be obtained at a reasonable cost, from the Administrator, Water Quality Control Commission, 4300 Cherry Creek Drive South, Denver, Colorado 80246. Unless expressly stated otherwise, materials incorporated by reference are those editions in existence as of the date this regulation is promulgated or revised by the Water Quality Control Commission and references do not include later amendments to or editions of the incorporated material. All material incorporated by reference may be examined at any state publications depository library.

#### 85.2 APPLICABILITY

This regulation applies to point sources and nonpoint sources of nutrients to surface water as identified in this regulation.

#### 85.3 SEVERABILITY

The provisions of this regulation are severable, and if any provisions or the application of the provisions to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this regulation shall not be affected thereby.

#### 85.4 DEFINITIONS

See the Colorado Water Quality Control Act and the Water Quality Control Commission codified regulations for additional definitions.

- (1) "BEST MANAGEMENT PRACTICE (BMP)" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "state waters." BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.
- (2) "DISADVANTAGED COMMUNITY" – means a community that ~~has a population of 5,000 or less with a median household income that is 80% or less of the statewide median household income~~ meets the criteria for disadvantaged community as defined in section 85.7.
- (3) "EXISTING TREATMENT FACILITY" means any existing domestic wastewater treatment facility that commenced discharge or received PELs or site approval prior to May 31, 2012 for groundwater discharge, surface water discharge, or a non-discharging facility; or that applied for a Notice of Authorization for the application of reclaimed water prior to May 31, 2012. Existing

treatment facilities also include non-domestic wastewater treatment facilities that commenced discharge to state waters prior to May 31, 2013.

- (4) "LOCAL GOVERNMENT" means a city, town, county, district, association, or other public body created by or under State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or a designated and approved management agency under section 208 of the federal Clean Water Act.
- (45) "MS4" means a municipal separate storm sewer system.
- (56) "MUNICIPAL SCREENER" means the average total annualized cost per household of pollution control including the cost of meeting the effluent limitations at 85.5 and other costs of complying with Regulation 85, divided by the median annual household income, on a percentage basis [i.e. (average total annual pollution control cost per household / median household income)\*100].
- (7) "NEW TREATMENT FACILITY" means any domestic wastewater treatment facility on a new site that is not an "existing treatment facility" and commences discharge to surface water, or receives PELs, after May 31, 2012, or any non-domestic wastewater treatment facility on a new site that is not an "existing treatment facility" and commences discharge to surface water or receives PELs after May 31, 2013.
- (68) "NONPOINT SOURCE" means any activity or facility other than a point source from which pollutants are or may be discharged. For the purposes of this regulation, nonpoint source includes all runoff that is not subject to the requirements provided under Regulation #61, section 61.3(2)(e), (f), or (g), including those designated by the Division under section 61.3(2)(f)(iii), whether sheet flows or collected and conveyed through channels, conduits, pipes or other discrete conveyances.
- (9) "SITE" means as defined in Regulation #61, 5 CCR 1002-61.
- (7910) "STORMWATER" means stormwater runoff, snow melt runoff, and surface runoff and drainage.

## 85.5 SPECIFIC LIMITATIONS FOR DISCHARGERS OF NUTRIENTS

The effluent limitations and stormwater management practices in this section shall be implemented in the Colorado Discharge Permit System (CDPS) and National Pollutant Discharge Elimination System (NPDES) permits authorizing the discharge to surface water beginning no sooner than July 1, 2013. Monitoring requirements are included in Section 85.6. All facilities should refer to section 85.6 regardless of the determination of applicable permit limits.

- (1) Numeric Limitations for Domestic Wastewater Treatment Works (DWWTW)
- (a) ~~Domestic Wastewater Treatment Works discharging prior to May 31, 2012 or that have submitted a complete request for preliminary effluent limits to the Division prior to May 31, 2012~~Existing Treatment Facilities:
- (i) Exclusions
- The numeric limits in subsections (iii)(a) and (b) below will not be included in CDPS and NPDES permits and will only be included in preliminary effluent limitations for Site Location and Design Approvals or in effluent limitations in CDPS permits upon request and with a delayed effective date for the following categories of dischargers:

- (A) Any DWWTW with a design capacity of less than or equal to 1.0 million gallons per day.
- (B) Any DWWTW owned by a disadvantaged community.

(ii) Delayed Implementation of Effluent Limits

The numeric limits in subsections (iii)(a) and (b) below or Division approved alternative or modified effluent limits consistent with 85.5(3)(b)(iv) or 85.5(3)(d) will ~~not~~ be included in preliminary effluent limitations with a delayed effective date for Site Location and Design Approvals ~~or in~~ and will not be included in effluent limitations in CDPS permits prior to May-December 31, 2022-2027 for the following categories of dischargers:

- (A) Any currently permitted DWWTW subject to Watershed Protection Control Regulations 71-74 (5 CCR 1002-71, 5 CCR 1002-72, 5 CCR 1002-73, and 5 CCR 1002-74).
- (B) Any existing permitted DWWTW with a design capacity of less than or equal to 2.0 million gallons per day.
- (C) Any existing permitted facility discharging into low priority 8-digit hydrologic units code watersheds [Purgatoire - 11020010, Upper Arkansas-John Martin Reservoir - 11020009, Upper San Juan - 14080101, Upper Arkansas-Lake Meredith - 11020005, Upper White - 14050005, San Luis - 13010003, Chico - 11020004, Kiowa - 10190010, Middle South Platte-Sterling - 10190012, San Miguel - 14030003, Alamosa-Trinchera - 13010002, McElmo - 14080202, Lower Gunnison - 14020005, Arkansas Headwaters - 11020001, Upper Yampa - 14050001, Upper Gunnison - 14020002, and Uncompahgre - 14020006].

(iii) All Others

For all Domestic Wastewater Treatment Works not identified in subsections (a)(i) or (ii) above and discharging prior to May 31, 2012 or for which a complete request for preliminary effluent limits has been submitted to the Division prior to May 31, 2012, the following numeric limits shall apply:

PARAMETER	PARAMETER LIMITATIONS	PARAMETER LIMITATIONS
.	Annual Median <sup>1</sup>	95th Percentile <sup>2</sup>
(a) Total Phosphorus	1.0 mg/L	2.5 mg/L
(b) Total Inorganic Nitrogen as N 3	15 mg/L	20 mg/L

1 ~~Running-Rolling~~ Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

(b) ~~For New Domestic Wastewater Treatment Works which submit a complete request for preliminary effluent limits to the Division on or after May 31, 2012, the following numeric limits shall apply~~New Treatment Facility:

PARAMETER	PARAMETER LIMITATIONS	PARAMETER LIMITATIONS
.	Annual Median <sup>1</sup>	95th Percentile <sup>2</sup>
(a) Total Phosphorus	0.7 mg/L	1.75 mg/L
(b) Total Inorganic Nitrogen as N 3	7 mg/L	14 mg/L

1 Running-Rolling Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

(1.5) Voluntary Incentive Program for Early Nutrient Reduction for Domestic and Non-Domestic Wastewater Treatment Works

(a) The Commission has created a voluntary incentive program for facilities that voluntarily reduce phosphorus and/or nitrogen nutrient concentrations below concentrations allowed by Regulation #85 effluent limits.

(b) To participate in the voluntary incentive program, a permittee is required to submit a nutrient reduction plan and annual nutrient monitoring reports to the Division.

(c) The voluntary incentive program is a performance based program. The program provides incentives for early reductions in nutrient concentrations below the concentrations allowed by the Regulation 85 effluent limits. The incentive that a permittee receives after 2027 is a discharge permit compliance schedule to provide additional time to meet nitrogen and/or phosphorus water quality-based effluent limits, limits derived from waste load allocations, or alternative effluent limits pursuant to Section 31.7(4). The additional time provided under the compliance schedule would be beyond that which would be otherwise be granted to a permittee not participating in the incentive program and would be based on additional effort made by the participating permittee to achieve early reduction of nutrients concentrations. The duration of the additional time in the discharge permit compliance schedule will be based on voluntary nutrient concentration reductions, as recorded in annual nutrient monitoring reports and submitted to the division. Participating facilities will begin accruing additional time for their discharge permit compliance schedules beginning on January 1, 2018 and ending on December 31, 2027

(d) The Division will include an extended permit compliance schedule in the first renewal permit after the Commission adopts numeric nutrient values in Regulation #31 and Regulations #32 through #38 to any permittee who, through participation in the voluntary incentive program, demonstrates success in reducing phosphorus and/or nitrogen nutrient concentrations below the concentrations allowed by Regulation #85.

(e) Nothing in this subsection (1.5) precludes the division from exercising its authority under section 25-8-307, C.R.S. to address public health emergencies or Regulation #61, section 61.8(8)(a)(iv) to address a division determination that the permitted activity endangers human health or the classified uses of state waters and can only be regulated to acceptable levels by permit modifications or termination. The division may exercise such authority with respect to participants in the voluntary incentive program, as well as other sources of nutrients, as may be appropriate.

(2) Numeric Limitations for Non-Domestic Wastewater Treatment Works

(a) ~~Non-Domestic Wastewater Treatment Works Discharging Prior to May 31, 2013. The following effluent limits apply to non-domestic existing treatment facilities:~~

(i) Delayed Implementation of Effluent Limits

The numeric limits in ~~subsections 85.5(1)(a)(iii)(a) and (b) above~~ section 85.5(2) will not be included in effluent limitations in CDPS permits prior to ~~May-December 31, 2022-2027~~ for any existing permitted facility discharging into low priority 8-digit hydrologic units code watersheds [Purgatoire - 11020010, Upper Arkansas-John Martin Reservoir - 11020009, Upper San Juan - 14080101, Upper Arkansas-Lake Meredith - 11020005, Upper White - 14050005, San Luis - 13010003, Chico - 11020004, Kiowa - 10190010, Middle South Platte-Sterling - 10190012, San Miguel - 14030003, Alamosa-Trinchera - 13010002, McElmo - 14080202, Lower Gunnison - 14020005, Arkansas Headwaters - 11020001, Upper Yampa - 14050001, Upper Gunnison - 14020002, and Uncompahgre - 14020006] except for dischargers that are discharging effluent concentrations of TN or TP that are greater than 53 mg/L and 6 mg/L, respectively.

(ii) All Others

~~The provisions of section 85.5(1)(a)(iii) apply to non-domestic wastewater treatment works discharging prior to May 31, 2013 but not covered by the delay provided in subsection (i) above. The following effluent limits apply to non-domestic existing treatment facilities not covered by the delay provided in section 85.5(2)(a)(i):~~

(A) ~~whose Non-domestic dischargers with a Standard Industrial Classification code is in the Major Group 20, and (SIC 20).~~

<u>PARAMETER</u>	<u>PARAMETER LIMITATIONS</u>	<u>PARAMETER LIMITATIONS</u>
±	<u>Annual Median <sup>1</sup></u>	<u>95<sup>th</sup> Percentile <sup>2</sup></u>
<u>(a) Total Phosphorus</u>	<u>10 mg/L</u>	<u>25 mg/L</u>
<u>(b) Total Inorganic Nitrogen as N <sup>3</sup></u>	<u>20 mg/L</u>	<u>27 mg/L</u>

1 \_\_\_\_\_ Rolling Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 \_\_\_\_\_ The 95th percentile of all samples taken in the most recent 12 calendar months.

3 \_\_\_\_\_ Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

(B) ~~any Any other non-domestic dischargers for which the Division has determined, based on credible information that the facility is expected, without treatment for nutrients, to discharge total inorganic nitrogen or total phosphorus concentrations to surface waters in excess of the respective following effluent limitations identified in section 85.5(1)(a)(iii)-limits.~~

<u>PARAMETER</u>	<u>PARAMETER LIMITATIONS</u>	<u>PARAMETER LIMITATIONS</u>
±	<u>Annual Median <sup>1</sup></u>	<u>95<sup>th</sup> Percentile <sup>2</sup></u>
<u>(a) Total Phosphorus</u>	<u>1.0 mg/L</u>	<u>2.5 mg/L</u>

<u>(b) Total Inorganic Nitrogen as N<sup>3</sup></u>	<u>15 mg/L</u>	<u>20 mg/L</u>
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1 Rolling Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

(b) ~~Non-Domestic Wastewater Treatment Works Which Begin Discharging On Or After May 31, 2013. The provisions of section 85.5(1)(b) apply to non-domestic wastewater treatment works~~The following effluent limits apply to non-domestic new treatment facilities:

(i) ~~whose Standard Industrial Classification code is in the Major Group 20, and Non-domestic dischargers within SIC 20.~~

<u>PARAMETER</u>	<u>PARAMETER LIMITATIONS</u>	<u>PARAMETER LIMITATIONS</u>
÷	<u>Annual Median<sup>1</sup></u>	<u>95<sup>th</sup> Percentile<sup>2</sup></u>
<u>(a) Total Phosphorus</u>	<u>5 mg/L</u>	<u>13 mg/L</u>
<u>(b) Total Inorganic Nitrogen as N<sup>3</sup></u>	<u>10 mg/L</u>	<u>20 mg/L</u>

1 Rolling Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

(ii) ~~any~~Any other non-domestic dischargers for which the Division has determined, based on credible information that the facility is expected, without treatment for nutrients, to discharge total inorganic nitrogen or total phosphorus concentrations to surface waters in excess of the ~~respective effluent limitations identified in section 85.5(1)(b)~~following effluent limitations.

<u>PARAMETER</u>	<u>PARAMETER LIMITATIONS</u>	<u>PARAMETER LIMITATIONS</u>
÷	<u>Annual Median<sup>1</sup></u>	<u>95<sup>th</sup> Percentile<sup>2</sup></u>
<u>(a) Total Phosphorus</u>	<u>0.7 mg/L</u>	<u>1.75 mg/L</u>
<u>(b) Total Inorganic Nitrogen as N<sup>3</sup></u>	<u>7 mg/L</u>	<u>14 mg/L</u>

1 Rolling Annual Median: The median of all samples taken in the most recent 12 calendar months.

2 The 95th percentile of all samples taken in the most recent 12 calendar months.

3 Determined as the sum of nitrate as N, nitrite as N, and ammonia as N.

(3) Additional Provisions Applicable to Domestic and Non-Domestic Wastewater Treatment Works

(a) Compliance Schedules

A permit shall not be issued which allows a violation of the provisions of this control regulation unless it contains a schedule of compliance requiring specific steps needed to modify or install treatment facilities, operations or other measures and deadlines for completion of those steps. Factors that the Division shall consider in developing the

deadlines to be included in a compliance schedule, based on information that may be provided by the permittee or is otherwise known, shall include:

- (i) Availability of resources needed to modify or install treatment facilities, adjust operations or other measures, including any in-house resources, the availability of consultants and contractors in the area with the appropriate expertise, and the availability of financing for any identified facility construction or other capital project, including the Water Pollution Control Revolving Fund;
- (ii) Current conditions at the site, including existing treatment processes, the physical characteristics of the property, and the layout of the facility on the property;
- (iii) Sufficient time for operational startup, new plant optimization, and operator training;
- (iv) Factors identified by the permittee that might significantly affect the time necessary to complete one or more of the steps necessary to attain compliance;
- (v) Sufficient time for the permittee to execute and implement a trade pursuant to section 85.5(3)(d);
- (vi) Sufficient time in the event the permittee undertakes a pilot project to develop and/or test new treatment technology for reduction of total inorganic nitrogen or total phosphorus; and
- (vii) Other site specific factors affecting the cost and timing of construction activities.

(b) Exceptions

The numerical effluent limitations set forth in sections 85.5(1)(a)(iii), 85.5(1)(b), and 85.5(2) shall not apply under the following circumstances:

- (i) Where a discharger demonstrates to the satisfaction of the Division that its discharge is unlikely to cause or contribute to ambient nutrient concentrations in its receiving waters that exceed the relevant numeric levels for total phosphorus and total nitrogen set forth in section 31.17 of Regulation #31;
- (ii) Where noncontact cooling water discharges contain nutrients (phosphorus or nitrogen) and nutrients in the discharge originate from the receiving water as intake water or through use of chemicals shown to be necessary for proper operation of the cooling tower;
- (iii) Where discharges consist solely of ground water that is pumped for the purpose of dewatering a construction site or for building sumps so long as no phosphorus or nitrogen is added to the ground water being discharged; or
- (iv) If effluent concentrations higher than the applicable numerical limitations under this Control Regulation are adequate to achieve the total phosphorus and total nitrogen instream values set forth in section 31.17 of Regulation #31, then those alternative concentrations will apply as effluent limitations under Regulation #85 rather than the numerical limitations set forth in sections 85.5(1) and 85.5(2) hereof.

(c) Variances

- (i) Variances from the numerical effluent limits set forth in sections 85.5(1)(a)(iii), 85.5(1)(b) and 85.5(2) of this control regulation may be granted by the Division where it is demonstrated by the permittee to the Division's satisfaction that the nutrient reduction benefits of meeting the section 85.5 effluent limitations do not bear a reasonable relationship to the economic, environmental, or energy impacts resulting from meeting those effluent limitations. Meeting the effluent limitations in section 85.5 shall be presumed not to bear a reasonable relationship to the associated economic, environmental, or energy impacts where:
  - (A) Greater than 50% of the median annual TN or TP incremental load within the 8-digit Hydrologic Unit Code (HUC) watershed results from permitted process wastewater point source discharges, if
    - for public sector entities, the Municipal Screener value is 2 or greater.
    - for private sector entities, the required increase in treatment will cause more than 10 percent change in the entity's level of profitability, or similar effect on liquidity, solvency, and leverage.
  - (B) 20-50% of the median annual TN or TP incremental load of the 8-digit HUC watershed results from permitted process wastewater point source discharges if:
    - for public sector entities, the Municipal Screener value is 1.5 or greater.
    - for private sector entities, the required increase in treatment will cause 5 to 10 percent change in the entity's level of profitability, or a similar effect on liquidity, solvency, and leverage.
  - (C) < 20% of the median annual TN or TP incremental load of the 8-digit HUC watershed results from permitted process wastewater point source discharges if:
    - for public sector entities, the Municipal Screener value is 1 or greater.
    - for private sector entities, the required increase in treatment will cause less than 5 percent change in the entity's profitability, or a similar effect on liquidity, solvency, and leverage.
- (ii) A request for a variance shall be accompanied by proposed alternate effluent limits that represent the highest degree of nutrient removal that is consistent with the reasonable relationship test.
- (iii) Variances shall be granted, denied, or revised as appropriate at the time of permit issuance or renewal.
- (d) Nutrient Trading
  - (i) Point Source to Point Source Nutrient Trading. The numerical effluent limitations set forth in sections 85.5(1)(a)(iii), 85.5(1)(b) and 85.5(2) may be modified for individual discharge permits pursuant to a trade of nitrogen or phosphorus



between point sources where the Division has determined that the trade will result in equal or better instream water quality for that parameter at all locations and at all times.

Point source to point source nutrient trades shall be based on a 1:1 ratio.

- (ii) Nonpoint Source to Point Source Nutrient Trading. The numerical effluent limitations set forth in sections 85.5(1)(a)(iii), 85.5(1)(b) and 85.5(2) may be modified for individual discharge permits pursuant to a trade of nitrogen or phosphorus credits from a nonpoint source to a point source on a stream segment or watershed basis where the Division has determined that the trade achieves a net water quality or environmental benefit and does not cause adverse localized impacts.

Nonpoint source to point source trades shall be based on a minimum 2:1 ratio, but may be revised based on site-specific data that demonstrates a lower ratio achieves the criteria specified in ~~Section 85.3(d)(ii)~~the paragraph above.

(4) MS4 Permit Requirements for Nutrient Source Reductions

The following requirements, at a minimum, shall be incorporated into a CDPS Permit for discharges from a Municipal Separate Storm Sewer System (MS4) required to obtain a CDPS Permit pursuant to Regulation #61.

- (a) Public education and outreach on stormwater impacts associated with nutrients. The MS4 permittee must develop, document, and implement a public education program to reduce water quality impacts associated with nitrogen and phosphorus in stormwater runoff and illicit discharges and distribute educational materials or equivalent outreach to targeted sources (e.g., residential, industrial, agricultural, or commercial) that are contributing to, or have the potential to contribute, nutrients to the waters receiving the discharge authorized under the MS4 permit.

CDPS Permits shall authorize MS4 permittees to meet the requirements of this section through contribution to a collaborative program to evaluate, identify, target and provide outreach that addresses sources state-wide or within the specific region or watershed that includes the receiving waters impacted by the MS4 permittee's discharge(s).

- (b) Pollution Prevention/Good Housekeeping for Municipal Operations associated with nutrients. The permittee must develop and implement a municipal operations program that has the ultimate goal of preventing or reducing nitrogen and phosphorus in stormwater runoff associated with the MS4 permittee's operations.

Written procedures for an operation and maintenance program to prevent or reduce nitrogen and phosphorus in stormwater runoff associated with the MS4 permittee's operations shall be developed. The program must specifically list the municipal operations (i.e., activities and facilities) that are impacted by this operation and maintenance program.

CDPS Permits shall authorize MS4 permittees to meet the requirements of this section through contribution to a collaborative program to evaluate, identify, and target sources state-wide or within the specific region or watershed that includes the receiving waters impacted by the MS4 permittees discharge(s).

(5) Nonpoint Source Discharges

- (a) Best Management Practice Implementation
  - (i) Governmental entities, individuals, corporations, partnerships, associations, agencies, and other entities with responsibility for activities or facilities that cause or could reasonably be expected to cause nonpoint source nutrient pollution of waters are encouraged to adopt and implement/install BMPs to the maximum extent practicable to reduce nutrient loads from such sources.
  - (ii) Agricultural operations that apply supplemental nutrients as part of crop production activities are encouraged to develop and implement nutrient management plans to the maximum extent practicable to reduce nutrient loads from such sources. Nutrient planning should be based on current soil, manure, and plant tissue test results developed in accordance with guidance or industry practice, such as that developed or recognized by Colorado State University.
  - (iii) The choice of which type of voluntary nonpoint source control measures shall be made by the entities identified in paragraphs (i) and (ii) above.
  - (iv) The Division shall collaborate with owners/operators of agricultural operations in pursuing incentive, grant, and cooperative programs to control nonpoint source pollution related to agricultural and silvicultural practices.
- (b) Public Information and Education
  - (i) The Division and entities identified in Section 85.5(5)(a)(i) are encouraged to develop and implement a public information and education program. This program will focus on the prevention of pollution from sources that could be mobilized from present and future activities as well as measures that could abate known nonpoint source pollution. Areas for abatement include, but are not limited to, general agricultural and silvicultural practices, landscaping activities, and other nonpoint sources of nutrients.
  - (ii) The program will be consistent with the voluntary, incentive-based approach and focus on the general public, and agricultural and local government sectors.
- (c) Additional Nonpoint Source Actions
  - (i) During the triennial review of this control regulation, the Division shall report to the Commission on the progress implementing the activities addressed under this section.
  - (ii) If voluntary nonpoint source BMPs are not effective in managing nutrients by May 31, 2022, the Commission may consider the adoption of prohibitions or precautionary measures to further limit nutrient concentrations.
  - (iii) Pursuant to section 25-8-205(5), C.R.S., after May 31, 2022 the Commission may consider adopting, in consultation with the commissioner of agriculture, control regulations specific to agricultural and silvicultural practices if the Commission determines that sufficient progress has not been demonstrated in agricultural nonpoint source nutrient management.

## 85.6 MONITORING REQUIREMENTS

(1) Monitoring requirements are established by this Control Regulation to evaluate the effectiveness of this control regulation and to determine the sources and load of nutrients at selected locations, and eventual implementation of appropriate and necessary source controls.

(2) Point Source Monitoring - Process Wastewater Dischargers

(a) Applicability. The requirements of this section apply to all DWWTW including federal facilities, and to any non-domestic dischargers in SIC Major Category 20 or that are identified by the Division pursuant to section 85.5(2), except that facilities that are excluded from effluent limits as described in Section 85.5(1)(a)(i) are only required to conduct effluent monitoring as described below in Section 85.6(2)(b)(i). Facilities that discharge to lakes may have modified monitoring requirements. ~~Monitoring of flow, TP, TN, and TIN is required for discharges from cooling towers to determine the relative amount of nutrient (if any) that is added to the flow diverted from state waters. Monitoring of the inflow, discharge, and any nutrient in added chemicals is required beginning November 1, 2012 and shall continue for a period of 24 months through October 31, 2014. A report summarizing all analytical results and the loads (lbs./day) in the inflow, the effluent, and added chemicals is required to be submitted by February 28, 2015.~~

(b) Nutrient Monitoring Program: Facilities identified in subsection (2)(a), above, shall develop, implement, and document a routine water quality monitoring program. The monitoring program shall be designed to characterize the load (coincident flow and concentration) of nutrients in the discharge, the concentrations in the receiving water above the discharge, and the load of nutrients at selected locations in the rivers and streams below the discharge. The monitoring program shall include the following information:

(i) Effluent Monitoring:

(A) Locations: Sampling for nutrients is required in the effluent before it is discharged into the receiving water body at the location where monitoring is performed to satisfy other CDPS and NPDES permit requirements.

(B) Parameters: At a minimum, sufficient data shall be collected to calculate TN, TIN, and TP load. Samples of treated effluent shall be analyzed for total nitrogen (or the components to calculate total nitrogen such as total Kjeldahl nitrogen plus nitrate-nitrite) and total phosphorus (or the components to calculate total phosphorus). Daily average effluent discharge shall be collected at the same time as the nutrient concentrations are measured.

(C) Frequency: Samples shall be collected a minimum of six times a year (every two months) for minor discharges and monthly for major discharges. Should there be no discharge due to the plant being offline or other reasons, zero discharge will be reported for that monitoring event.

(ii) Stream Nutrient Monitoring:

(A) Locations: Sampling for nutrients is required in the receiving water body:

- upstream of the discharge; and
- at the closest active Colorado Division of Water Resources or United States Geological Survey (USGS) gaging station with

daily flow available throughout the year downstream of the discharge's mixing zone; or

- In lieu of the closest downstream Division of Water Resources or USGS gaging station, facilities may take part in collaborative watershed-based monitoring efforts if the parameters and frequency follow sections (B) and (C) below.

- (B) Parameters: At a minimum, samples shall be analyzed for total inorganic nitrogen, total nitrogen (total Kjeldahl nitrogen plus nitrate-nitrite, or the components to calculate total nitrogen) and total phosphorus (or the components to calculate total phosphorus). Daily streamflow record will be collected where an established gaging station is present. Where an established gaging station is not available, an alternative streamflow calculation methodology may be approved by the Division.
- (C) Frequency: Samples shall be collected a minimum of six times a year (every two months) for minor discharges and monthly for major discharges.

(iii) Lake/Reservoir Monitoring: RESERVED

(iv) Timing: Entities shall commence data collection no later than March 1, 2013. Data collection will continue through December 31, 2027.

~~(3) Point Source Data Collection – Municipal Separate Storm Sewer System Dischargers~~

~~(a) Applicability: The requirements of this section apply to all MS4s owned or operated by cities, towns, counties, and city and counties that are required to have a CDPS discharge permit pursuant to Regulation #61 for stormwater discharges from a Municipal Separate Storm Sewer System (MS4) and for which coverage was obtained prior to March 1, 2012.~~

~~(b) Purpose: The purpose of this section is to identify information that exists, and the need for additional monitoring to be conducted in the future, to determine the approximate nitrogen and phosphorus contribution to state waters due to discharges from MS4.~~

~~(c) Discharge Assessment Data Report: The MS4 permittee shall develop, document and submit to the Division a Discharge Assessment Data Report (Data Report) by October 31, 2014, that documents the availability of existing data, and a "Gap Analysis" that identifies the need for additional information (e.g., monitoring data or studies), in accordance with the requirements of this section.~~

~~(i) Objectives: The Data Report must provide information on existing data and identify additional information necessary that would allow for future analysis to meet all of the following objectives:~~

~~(A) Allow for the determination of representative estimates that quantify MS4 discharge flows and associated concentrations, and loads of total nitrogen and total phosphorus from the permittee's MS4. This shall include representative annual or seasonal information to define significant nutrient loads from different land uses due to rainfall events, snowmelt events, and/or dry weather flows. The information used for making the determination must be from one or more of the following sources:~~

- ~~1. monitoring data collected at the discharge from the MS4, at a location within the MS4, or in state waters downstream of the discharge from the MS4;~~
- ~~2. monitoring data collected by one or more different entities that is shown to provide information that supports the evaluation in (A), above;~~
- ~~3. land use type-based model(s) developed to predict nutrient concentrations in discharges from MS4s that is(are) shown to provide information that supports the evaluation in (A), above; and~~
- ~~4. land use type-based runoff nutrient concentration/load values in published studies, manuals, or literature shown to provide information that supports the evaluation in (A), above.~~

~~(B) Estimates determined in accordance with (A), above:~~

- ~~1. are not required to be provided for individual outfalls, and may be provided for the cumulative discharges from the MS4 to a specific receiving water(s) or watershed(s);~~
- ~~2. are not required to address point source discharges specifically authorized by GDPS permits other than for discharges from an MS4; and~~
- ~~3. shall, as necessary to provide representative information, take into account the land uses, imperviousness, watershed hydrology, and precipitation data and other appropriate factors within the permitted area under the MS4 permit.~~

~~(ii) The Data Report shall document the following, at a minimum:~~

~~(A) The source(s) of the existing data, including, or providing a reference to general information available for Division review. Where monitoring data are provided, it shall include a description of the methods used for sample collection, field, and laboratory analysis. All existing data used to meet the requirements of this section shall have been obtained from sources using quality assurance/quality control protocols and standards in general accordance with accepted good monitoring and analysis procedures.~~

~~(B) For discharge data identified in the Data Report that is associated with rainfall or snowmelt events: available documentation of associated and relevant storm event data over the contributing watershed during the monitored event(s), including duration (in hours) of the rainfall event, and magnitude (in inches).~~

~~(C) For receiving water monitoring data identified in the Data Report: available quantitative or qualitative information associated with the monitoring plan or study that generated the data that determines, or could be used to determine, the probable contributions of nitrogen and phosphorus during the monitored events from the MS4 discharges.~~

~~(D) — A summary of the Gap Analysis, including either:~~

- ~~1. — Information to support a determination that the existing data provided in accordance with subsection (A), above, fully or partially meets the objectives subsection in 85.6(3)(c)(i), above; and~~
- ~~2. — Identification of the "data gaps" for which additional information is determined necessary to meet the objectives in subsection 85.6(3)(c)(i).~~

~~(iii) — Collaboration with Other MS4 Permittees: To comply with the requirements of subsection 85.6(3)(c) MS4 permittees may collaborate in the development and documentation of a report with other MS4 permittees that identifies data and the supporting information that is shown to be meet the objectives of 85.6(3)(c)(i) for each participating MS4. Data do not have to be collected from each MS4 so long as they are shown to be representative of the quality of the stormwater being discharged. Data must be representative of land uses, imperviousness, watershed hydrology, and precipitation within the area which the data are intended to represent.~~

~~(d) — The Division shall notify the permittee if the Division determines that the Data Report is not adequate to meet one or more of the requirements of this regulation. Such notification shall identify which provisions of the submittal, if any, require modification. Within 60 days of such notification from the Division, or a later date agreed to by the Division, the permittee shall make the required changes and re-submit the Data Report or demonstrate to the Division's satisfaction that the requirement has been met.~~

~~(e) — An MS4 permittee shall furnish to the Division, within a reasonable time, information which the Division indicates is necessary to determine compliance with the requirements of section 85.6(3).~~

(43) Data Quality Requirements

- (a) The entities collecting the samples will document, and make publicly available the sampling methods, analytical methods, method detection limits, required field condition and physical parameters to be recorded at each sampling event, and quality control and quality assurance protocols in a sampling and analysis plan.
- (b) The information required under subsection (a) above, may be evaluated by the Division for compatibility with the objectives of this section. Where the Division identifies deficiencies in the protocols/methods being used to meet the objectives of subsection (a) above, the entities shall make appropriate revisions such that the Division-identified deficiencies are addressed.
- (c) All sampling and analysis shall be performed by the entities according to specified methods in 40 C.F.R. Part 136; methods approved by EPA pursuant to 40 C.F.R. Part 136; or methods approved by the Division. The analytical method for all ambient monitoring conducted in accordance with this regulation shall be capable of reporting results at or below the following method detection limits (MDL):

Total Phosphorus	0.01 mg/L
Nitrate + Nitrite	0.02 mg N /L

Total Kjeldahl Nitrogen	0.1 mg N /L
Total Nitrogen	0.1 mg/L

All results above the MDL must be reported for ambient samples. The analytical method for all effluent monitoring conducted in accordance with this Regulation shall be capable of reporting results at or below the practical quantitation limit (PQL), ~~as required by Regulation #64~~

- (d) The permittee shall submit a certification to the Division that the sampling and analysis plan is in place and that monitoring is taking place ~~by March 1, 2013~~. This certification is due to the Division by 6 months after permit issuance or by March 2013 if the permit was in place prior to March 2013.

(54) Nonpoint Source and Unpermitted Point Source Monitoring

- (a) Entities responsible for nonpoint sources and unregulated point sources of nutrients are encouraged to monitor and assess surface water resource quality as identified in Section 85.6(2) to determine the extent and magnitude of nutrient impacts. In addition, the Commission recognizes state water conservation, water conservancy, and special irrigation districts as entities that monitor and assess surface water resource quality and encourages making this data publicly available for use in nonpoint source management efforts.
- (b) The Division shall collaborate with these entities in developing and implementing a nutrients nonpoint source monitoring program to meet the requirements of this control regulation.
- (c) Future monitoring activities are encouraged to coordinate with point source nutrient monitoring, the Colorado Agricultural Chemicals Program, and other relevant local, state, and federal monitoring efforts.
- (d) The responsible entities are encouraged to identify potential funding sources and pursue options for monitoring in areas that do not have a current or future nutrient monitoring program.

(65) Availability and Reporting of Data

All data collected under Section 85.6 shall be maintained by the facility for 5 years after submission in an electronic form. All data collected pursuant to this control regulation shall be submitted to the Division by April 15th of each year. The submission shall include geographic location of sampling, CDPS or NPDES permit number (if appropriate), name and identification of the stream flow gage, as follows:

- (a) In electronic data deliverable as specified for receipt by the Division; or
- (b) Electronic submission to an alternative publicly available data repository. If this option is selected, the facility must notify the Division ~~must be notified~~ by April 15 ~~of each year and the Division will make~~ all relevant data ~~must be~~ accessible to the public.

**85.7 DISADVANTAGED COMMUNITIES**

- (1) Disadvantaged community (“DAC”) means a community that has a population of 10,000 or less and meets the required combination of primary and secondary factors specified in section (3) below.
- (2) For purposes of determining whether a community meets the definition of a disadvantaged community, the following definitions apply:
- (a) “10-YEAR CHANGE IN POPULATION” means the average annual change for a location spanning ten years.
- (b) “ASSESSED VALUE/HOUSEHOLD” means taxable resources on a household basis.
- (c) “COMMUNITY MEDIAN HOUSEHOLD INCOME” means data that divides local households into two parts with half earning more than the median income and the other half earning less. An income survey completed for another state or federal program can substitute for data that is determined to be unreliable or unavailable.
- (d) “COMMUNITY MEDIAN HOME VALUE” means data that divides the value distribution of homes into two parts with half of the homes falling below the median value and half falling above the median value. When data is unreliable or unavailable, the county assessor’s list of homes can be substituted.
- (e) “COUNTY 10-YEAR CHANGE IN JOBS” means the increase or decrease in total jobs which is comprised of wage and salary jobs as well as self-employed proprietor jobs.
- (f) “COUNTY MEDIAN HOUSEHOLD INCOME” means data that divides county households into two parts with half earning more than the median income and the other half earning less than the median income.
- (3) A community that meets the required combination of primary and secondary factors as specified below is a disadvantaged community for purposes of this Regulation:

**Primary and Secondary DAC Factors**

<u>Primary Factors</u>	<u>Benchmark</u>
<u>P1 Community Median Household Income (MHI)</u>	<u>Less than or equal to 80 percent of the state MHI</u>
<u>P2 Community Median Home Value (MHV)</u>	<u>Less than 100 percent of the state MHV</u>
<u>P3 County 10-Year Change in Jobs</u>	<u>Loss in total jobs in the county over a 10 year period</u>
<u>Secondary Factors</u>	<u>Benchmark</u>
<u>S1 County Median Household Income (MHI)</u>	<u>Less than or equal to 80 percent of the state MHI</u>
<u>S2 10-Year Change in Population</u>	<u>Community has lost population over a ten year period</u>
<u>S3 Assessed Value/Household</u>	<u>Community’s total assessed value per household is less than the median Colorado municipality assessed value per household</u>

**DAC Scenarios**



<u>Scenario</u>	<u>Primary Factors</u>	<u>Results</u>	<u>Secondary Factors</u>	<u>Results</u>
<u>1 (P1) MHI and</u>	<u>(P2) MHV or (P3) Change in Jobs</u>	<u>DAC</u>	<u>Unnecessary</u>	
<u>2 (P1) MHI Only</u>	<u>Neither (P2) MHV nor (P3) Change in Jobs</u>	<u>Test secondary</u>	<u>Meet at least two of three</u>	<u>DAC</u>
<u>3 (P1) Unreliable MHI but</u>	<u>Both (P2) MHV and (P3) Change in Jobs</u>	<u>Test secondary</u>	<u>Meet at least two of three</u>	<u>DAC</u>

(4) At the time of submitting a permit application, a community may request that the Division make a determination of whether or not the community is a disadvantaged community.

(5) In the event a community's primary or secondary factor data does not represent recent, significant economic distress, or a scenario is marginally disqualifying, a business case may be presented for determination of disadvantaged community status. The business case should be qualitatively based on the factors the community has determined as not reflective of the community's current socio-economic condition. The business case should be submitted to the Division, who will review the business case regarding the disadvantaged community status. The Division will determine whether the business case presented provides compelling evidence that the community is a disadvantaged community.

**85.8 – 85.14 RESERVED**

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**85.16 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: OCTOBER 10, 2017 RULEMAKING, FINAL ACTION NOVEMBER 13, 2017; EFFECTIVE DATE OF DECEMBER 30, 2017**

The provisions of sections 25-8-202; 25-8-205; 25-8-304; 25-8-401; 25-8-402; and 25-8-501, C.R.S., provide the specific statutory authority for the adoption of this Control Regulation. The Commission has also adopted, in compliance with section 24-4-103(4) C.R.S., the following statement of basis and purpose.

**BASIS AND PURPOSE**

Phase 2 of Colorado's Nutrients Management Program: In this rulemaking, the commission took action to put into place the second phase of Colorado's strategy to address current and potential future nutrient pollution of Colorado surface waters.

In 2012, the commission adopted interim numerical values for phosphorus, nitrogen, and chlorophyll *a* as one part of a two-part strategy. Since 2012, the commission has adopted phosphorus numeric values upstream of domestic discharges, cooling tower discharges, and non-domestic discharges subject to Regulation #85 effluent limitations in segments throughout the state in accordance with 31.17. The commission has also adopted the direct use water supply classification and standard in accordance with 31.17. In 2016, EPA approved the interim numeric values for chlorophyll *a*, approved with recommendations the numeric values for phosphorus and nitrogen for lakes and reservoirs, and took no action with respect to the interim numeric values for phosphorus and nitrogen for rivers and streams or the delayed effective dates.

In 2012, the commission envisioned that the interim numeric values in 31.17 could be used for the adoption of water quality standards for any surface waters in Colorado following May 31, 2022. However, EPA's action in 2016 has led the commission to consider modifications to its nutrients reduction strategy.

First, the commission noted that EPA had approved the interim numeric values for chlorophyll a, and the commission determined that the 2022 timeframe is appropriate for adoption of chlorophyll a standards. The adoption of chlorophyll a standards throughout the state in the 2022 timeframe is included in Colorado's nutrients management plan that was discussed during the proceedings for this hearing. Also discussed in that plan is the commission's anticipation that during Phase 2 of Colorado's nutrients management approach, the chlorophyll a standards will be implemented through the TMDL process for waters listed on the 303(d) list for impaired waters.

Second, the commission noted that EPA approved with recommendations the numeric values for phosphorus and nitrogen for lakes and reservoirs. Because of the EPA recommendations regarding the interim phosphorus and nitrogen values for lakes and reservoirs, additional analysis is needed before applying the interim values, particularly for warm-water lakes and reservoirs. The commission determined that the division should revisit the phosphorus and nitrogen values for lakes and reservoirs, and should prioritize the development of numeric phosphorus and nitrogen standards based on protection of public health. Therefore, as reflected in the nutrients management plan, the commission anticipates that in the 2022 timeframe the division will propose phosphorus and nitrogen standards for lakes and reservoirs that are direct use water supply reservoirs and where there are public swim beaches. With the exception of direct use water supply reservoirs and lakes and reservoirs with public swim beaches, the commission has decided to further delay the effective dates of the phosphorus and nitrogen numeric values below dischargers to 2027.

Third, the commission noted that EPA took no action with respect to the interim numeric values for phosphorus and nitrogen for rivers and streams. The commission determined more time is needed to revisit the numeric values for phosphorus and nitrogen for rivers and streams, and anticipates that revised standards will be developed and considered in the 2027 timeframe. The commission acknowledges that removing dissolved organic nitrogen to low levels is a current technological challenge. The commission recognizes this issues will need to be considered in future policy reviews and rulemaking hearings regarding nutrients along with future technological advances.

The commission also anticipates that a hearing will be held in 2020 to consider impacts from nonpoint sources and potential strategies for nonpoint source control. As part of implementing the provisions of Regulation 85 at subsection 85.5(5), Nonpoint Source Discharges, the Commission determined that considerable progress has been made to date by the Division, the Colorado Monitoring Framework Agricultural Task Force, the Lower Arkansas Valley Water ~~Conservation-Conservancy~~ District, and other partnering entities through dissemination of nutrient control-related information and tools for voluntary use by the agricultural community. This model of collaborative outreach, education, and engagement has been made possible through Division leadership and funding to support these efforts, as well as the proactive responsiveness of entities who work directly with agricultural producers. The Commission encouraged these collaborative activities to continue with a goal of documenting measurable results for presentation at the next triennial review.

In addition, while the commission's traditional approach would have meant that the commission would have considered updated standards for ammonia and selenium in 2021, the current intent of the commission is to delay adoption of revised standards for selenium and ammonia until 2027 as well. The long-term strategy is that the commission will consider the adoption of revised standards for all of these constituents for all water bodies in the state in rulemaking hearings in 2027. The commission anticipates that over the course of the next 10 years, the division will work to revise the standards for ammonia, selenium, nitrogen and phosphorus for rivers and streams, while at the same time will develop feasibility information to assist dischargers with proposing discharger specific variances, which will also take into consideration the treatment challenges of treating for nutrients, selenium, and ammonia, as well as temperature. In order to implement standards as soon as practical, the commission will not rely on the basin review process for adoption of site-specific standards over the course of several years. Instead, in

hearings in 2027, the commission will consider site-specific standards and discharger-specific variances for all of these parameters for all waters bodies of the state. After adoption of revised numeric nutrient standards in 2027 in rivers and streams, the commission intends that water quality based effluent limits will be implemented into permits after December 31, 2027.

While the commission has decided to delay the adoption of numeric nutrient values to 2027, it is committed to making additional progress towards nutrient reductions in Colorado during this second phase. The commission believes that the best way to make progress at this time is through an incentives program to encourage early reductions of nutrients by domestic and non-domestic wastewater treatment works. The incentives program will encourage facilities to make voluntary reductions of nutrients, and in exchange the facility will receive an extended compliance schedule as well as certainty about the year in which the facility will need to meet water quality based effluent limits. An extended compliance schedule means the facility will be given additional time to comply with effluent limits that would be based on water quality standards or variances adopted in 2027. The commission believes that more progress can be made through an incentives program than through mandating reductions by medium sized facilities or facilities in a low priority watershed. For example, the commission believes that even if only the 15 largest dischargers took advantage of the incentives program, and if each of those facilities reduced its nitrogen 20% below the Regulation #85 effluent limits, the resulting load reduction in the state would be three times larger than what would be achieved if the Regulation #85 effluent limits were applied to all domestic wastewater treatment facilities with delayed implementation as identified in 85.5(1)(a)(ii). The commission believes this is the best current policy option to make effective progress in addressing nutrients management in Colorado at this time. The commission believes that reducing the phosphorus or nitrogen effluent limits in Regulation #85, or to apply those effluent limits to more facilities would result in substantially less progress in controlling nutrients in the next 10 years than will the incentive program. However, the commission does intend to evaluate the amount of improvement that occurs through the incentive program, and may revisit this approach and make additional modifications to its nutrients reduction strategy if this voluntary incentives program does not result in reductions as anticipated.

To achieve this goal of early nutrient reduction, the commission has adopted a voluntary incentive program. Participation in the program is entirely voluntary. The program does not require wastewater treatment facilities to implement a specific treatment technology, but it is anticipated that nutrient reductions will be achieved through BNR optimization, a water quality trade, a source reduction plan, watershed nutrient reductions, or capital improvements. A facility that achieves early reduction of nutrients will be offered an incentive in the form of an extended CDPS permit compliance schedule, which increases the number of years that the wastewater facility has to meet the water quality based effluent limits after 2027. The commission expects that the incentive will provide wastewater treatment facilities additional time to identify funding sources necessary to make the capital infrastructure investment in tertiary treatment after 2027.

Regulatory framework for voluntary incentive program: The voluntary incentive program is outlined in Regulation 85.5(1.5). The commission intends that implementation of this program will be accomplished in conjunction with Commission Policy 17-1 that was adopted concurrent with this hearing. Permittees who wish to participate in the incentive program are required to submit a nutrient reduction plan and annual nutrient monitoring reports to the division by December 31, 2019. In order to qualify for the incentive program, the permittee must reduce nitrogen and/or phosphorus discharge concentrations to levels below those in Regulation #85 by December 31, 2026.

The annual reporting requirement provides the division with an opportunity to review a permittee's progress in reducing nutrient levels below those in Regulation #85 and to assess how those reductions relate to the incentives offered in Commission Policy 17-1. If a permittee is able to make early reductions in its discharge of nutrients, the permittee will qualify for an incentive which gives it additional time to comply with numeric nutrient values in Regulation #31, and Regulations #32 through 38 that are anticipated to be adopted in 2027. The amount of additional time granted will depend on the amount of nutrient concentration reduction that the wastewater facility achieves between 2019 and 2026.

The commission considered whether permittees subject to TMDLs should still be able to participate in the incentive program due to the fact that there is an impaired waterbody and the incentive program will result in participants receiving an extended period of time to meet their wasteload allocations. In particular, the commission heard concerns about participation by the dischargers subject to the Barr Milton TMDL. The commission ultimately decided that dischargers subject to a TMDL should still be able to participate in the incentive program because it will help drive earlier reductions. However, in the case of the dischargers subject to the Barr Milton TMDL, the commission decided that in order to continue to incentivize early nutrient reductions by those dischargers but yet address concerns about additional delay in implementation of the phosphorus wasteload allocations, that the method for earning incentive credit for total phosphorus reduction would be focused on further phosphorus reductions in line with the Barr Milton TMDL phosphorus targets. During the first review of Policy 17-1 which would typically take place in 2020, the commission will consider whether to extend the method that applies to the dischargers with a wasteload allocation pursuant to the Barr Milton TMDL- to other dischargers within the Barr Milton watershed or even potentially more broadly. Should the division, based on discussions with dischargers, determine that consideration of this change should occur prior to the deadline for opting into the incentive program on December 31, 2019, the division can request that the commission consider changes prior to December 31, 2019.

The division will use Commission Policy 17-1 to make a determination about the amount of time that a permittee participating in the incentive program should be granted when it renews the permittee's CDPS permit after 2027. The division will rely on the nutrient incentives program annual reports in making this determination. If a permittee achieves early reduction of nutrients, it will be granted a compliance schedule in accordance with Commission Policy 17-1. Such compliance schedule may be revised or terminated if the division determines, under section 25-8-307, C.R.S., that the discharge or continued discharge of nutrients by an incentive program participant constitutes a "clear present and immediate danger to the health or livelihood of members of the public," or, under section 61.8(8)(a)(iv) of Regulation #61, that the "permitted activity endangers human health or the classified or existing uses of state waters and can only be regulated to acceptable levels by permit modification or termination." Examples of situations that could trigger the division's exercise of this authority could include, but are not limited to, a toxic algae bloom in receiving waters downstream of a wastewater treatment facility or the presence of pollutants that cause or contribute to unacceptably high concentrations of disinfection byproducts in drinking water treatment facilities with intake locations downstream of a wastewater treatment facility. They could also include situations where nutrient levels in receiving/downstream waters have reached extreme highs or have increased two or threefold since 2017, where streams or reservoirs have repeated algae blooms producing toxins in multiple years, or where there is demonstrable and significant impact to aquatic life or other animals attributable to nutrients.

Based on the environmental benefit anticipated from the voluntary nutrient reductions under the incentive program, the commission expects these circumstances to be rare. The commission recognizes that the voluntary nutrient reductions that will result from the incentive program participants may reduce the severity of the event by reducing nutrient concentrations below those that would otherwise have been permitted. The commission anticipates that in such a circumstance the division will evaluate all of the sources and work to control all of the sources concurrently or in succession, depending on the most appropriate approach in that particular case.

A permittee or other interested parties can challenge the division's determination implementing the voluntary incentive compliance schedule as part of the CDPS permit renewal schedule. If the annual nutrient monitoring reports demonstrate that a permittee has achieved early nutrient reductions in accordance with Commission Policy 17-1, there will be a presumption that a permittee is entitled to the additional time allotted.

It is the commission's determination that this approach will achieve the maximum practical degree of water quality in state waters consistent with the welfare of the state, and that this approach maximizes the beneficial uses of state waters while bearing a reasonable relationship to the economic, environmental, energy, and public health costs and impacts to the public. The commission intends that the incentive program as adopted in 2017 will be maintained for the participants through 2027. The commission will

review the incentive program as part of its triennial process in 2022. If the commission determines that additional nutrient reductions beyond those that result from the incentive program are necessary during the program period, the commission intends that these additional reductions will be accomplished first through alternative regulatory mechanisms and only as a last resort will the commission change the incentive program.

Definition of New and Existing Treatment Facilities: The commission modified section 85.4 DEFINITIONS by adding the terms New Treatment Facility and Existing Treatment Facility and renumbering all definitions based on alphabetic ordering. These terms were added to clarify the commission's previously stated intent that the technology based effluent limits for new treatment facilities were not to apply to expansions or other improvements to existing facilities in the same location. The previous regulatory language did not clearly indicate that the technology based effluent nutrient limits apply to discharges to surface water only. The new definitions clarify that existing domestic facilities include any treatment facility that commences discharge or receives PELs or site approval for groundwater discharge or surface water discharge or who applies for a Notice of Authorization for the application of reclaimed water prior to May 31, 2012, even if the facility was discharging without a permit. The new definitions also clarify that a change in a treatment facility's site location will result in application of the effluent limits for new facilities. A cross-reference to the definition of the term "site" in Regulation #61 was also added. The definitions do not change existing implementation practices, but merely reinforce current interpretations to prevent any future misunderstanding or misapplication.

Preliminary Effluent Limits: The commission modified section 85.5(1)(a) to allow a standard practice of including Regulation #85 effluent limits in preliminary effluent limits (PELs), with a delayed effective date, for the facilities covered by Section 85.5(1)(a)(ii). While some effluent limits will mirror the limits in Sections 85.5(1)(a)(iii) or (1)(b), in the course of evaluating the Regulation #85 limits for PELS, the division would also be evaluating whether any of the additional exceptions from Section 85.5(3)(b) would apply or whether a trade has been executed pursuant to Section 85.5(3)(d), resulting either in no effluent limit or a less stringent effluent limit than those contained in Sections 85.5(1)(a)(iii) or (1)(b). This will allow a facility to plan and design the facility to meet the Regulation #85 effluent limits if they choose to do so. In addition, the facility would be able to obtain Site Location and Design Approval for that design. This type of information would be helpful, for example, in a situation where a facility is planning other facility upgrades or is interested in leveraging funding opportunities.

The commission also modified section 85.5(1)(a)(i) to allow preliminary effluent limits, with delayed effective dates, to be included for small and disadvantaged communities upon request by the facility.

Disadvantaged Communities: Section 85.5 states that the numeric effluent limits do not apply to any domestic wastewater treatment works owned by a disadvantaged community. The commission did not change this exclusion in this hearing. However, the commission did update the definition of disadvantaged communities in order to better examine the socio economic condition of a community and to be more aligned with the State Revolving Loan Fund program definition. First, the commission changed the population threshold from 5,000 to 10,000. Then, multiple criteria are evaluated to determine whether the community is disadvantaged. There are three primary factors that a community will be evaluated against: median household income, median home value, and unemployment rate or job loss. There are three secondary factors that will also be evaluated. Section 85.7 contains a table that outlines which factors must be met in order for a community to be determined to be a disadvantaged community. In the event a community is determined not to be disadvantaged, but the community believes there is an error in the data, the community may present a business case to the division for review. The division will then determine whether a business case has been made such that the community should be determined a disadvantaged community and therefore excluded from application of the effluent limits.

The commission also clarified that if a community wants the division to conduct an evaluation of whether it meets the criteria in section 85.7, the community must request that analysis be conducted at the time of submitting its permit application.

Monitoring and reporting requirements: A two year monitoring requirement for cooling tower discharges existed in Section 85.6(2)(a). This monitoring requirement resulted in the data collection and reporting of nutrient data from inflow, discharge and nutrient added to cooling processes from November 1, 2012 through October 31, 2014. This monitoring requirement was fulfilled and therefore the commission deleted that provision.

A reporting requirement for municipal separate storm sewer system discharges existed in Section 85.6(3). The data was compiled into a report and submitted to the division. This reporting requirement was fulfilled and therefore the commission deleted that provision.

The commission added the requirement to monitor and report total inorganic nitrogen at stream monitoring locations. This change will allow the direct comparison of effluent and instream total inorganic nitrogen concentrations and loads, and thus, a better understanding of the change due to the implementation of total inorganic nitrogen effluent limits.

The commission notes that applicable PQLs can be found in WQC Policy CW6.

In order to provide certainty to monitoring facilities, the commission added an end date of December 31, 2027 to the monitoring requirements. This date will allow the division to amass substantial data regarding nutrient loading into Colorado's waters and will provide for an understanding of how that load may change as nutrient effluent limits are implemented. Furthermore, the commission anticipates there will be continued nutrient monitoring data from the division's (and others') routine monitoring as well as from discharge monitoring requirements as effluent limits are implemented into permits. However, understanding the impacts to water quality from the implementation of the incentive program, water quality based effluent limits based on Regulation #31 criteria, and related DSVs may necessitate collection of additional instream data. Therefore, the commission will reevaluate the appropriateness of this end date at future rulemaking hearings.

In order to reduce confusion, the commission added a sentence to the opening paragraph of Section 85.5 to call attention to the monitoring requirements of 85.6 regardless of whether the effluent limitations in 85.5 apply.

Federal Facilities: The commission modified 85.5 and 85.6 to clarify that Regulation #85 applies to federally operated domestic wastewater treatment facilities that receive National Pollutant Discharge System Elimination System (NPDES) permits from EPA as Colorado has not been delegated authority to issue permits to federal facilities. Other control regulation requirements apply to federal facilities in Colorado and it makes sense for this control regulation to stand on equal ground in terms of its applicability to federal facilities. The commission added language to clarify that section 85.5 requirements apply to Colorado Discharge Permit System (CDPS) and NPDES permits. In addition, the commission clarified in 85.6 that monitoring requirements apply to federal facilities.

Typos and corrections: In addition to the substantive changes described above, numerous editorial changes have been made in the regulation to provide clarity. Several minor changes were made to further define priority watersheds, delete references that were no longer relevant, and to clarify the monitoring requirements. In addition, several typographical errors have been corrected including a reference in the trading section.

#### Standard Industrial Classification code in the Major Group 20

Numeric Limitations for Non-Domestic Wastewater Treatment Works: The commission modified Section 85.5(2) to include TIN and TP limitations specific to non-domestic dischargers with a Standard Industrial Classification code in the Major Group 20 (SIC 20). Several of the SIC 20 dischargers presented information to the commission regarding their specific challenges in treating to the Regulation 85 limitations. The SIC 20 industries treat wastewater that has influent concentrations of total nitrogen in the range of 500 to 900 mg/L (4,170 to 7,500 lbs/MG) and total phosphorus concentrations of 60 to 80 mg/L

(500 to 670 lbs/MG). These influent concentrations are an order of magnitude higher than the influent concentrations experienced by typical domestic wastewater treatment works. While most of the existing SIC 20 wastewater treatment works are configured to treat these higher influent nutrient loadings, the influent nutrient and organic ratios do not allow these wastewater treatment works to achieve biological nutrient removal to the same technology based effluent limits as typical domestic wastewater treatment works.

For consistency with the requirements for domestic facilities, new and existing SIC 20 facilities were assigned different technology based effluent limits. These limits were based on the capability of biological treatment systems, and the difficulty of retrofitting existing systems versus the ability to design and install enhanced treatment on an undeveloped site. The commission decided to require existing SIC 20 facilities to achieve treatment commensurate with BNR removal for the more significant influent loading. For new SIC 20 facilities, the technology based nutrient effluent limits were based on the biological treatment capabilities of enhanced BNR (eBNR) treatment systems at these anticipated higher influent loads. Based on the expected influent loadings of the SIC 20 facilities and the domestic wastewater facilities, the adopted technology based effluent limits for SIC 20 facilities reflect similar percent removals for total phosphorus, but significantly higher percent removals for total inorganic nitrogen.

#### PARTIES TO THE RULEMAKING

1. City of Boulder, Centennial Water and Sanitation District, Littleton-Englewood Wastewater Treatment Plant, Metro Wastewater Reclamation District and Colorado Wastewater Utilities Council
2. AF CURE
3. City of Black Hawk and Black Hawk/Central City Sanitation District
4. Colorado Monitoring Framework
5. Eagle River Water and Sanitation District
6. Supervisory Committee of the Littleton/Englewood Wastewater Treatment Plant
7. Colorado Springs Utilities
8. North Front Range Water Quality Planning Association
9. Farmer's Reservoir and Irrigation Company
10. City of Fort Collins
11. Town of Fraser
12. MillerCoors, LLC
13. Plum Creek Water Reclamation Authority
14. Public Service Company of Colorado
15. City of Pueblo
16. Silverthorne/Dillon Joint Sewer Authority
17. Town of Telluride
18. Tri-Lakes Wastewater Treatment Facility
19. Tri-State Generation and Transmission Association, Inc.
20. Upper Blue Sanitation District
21. Dominion Water and Sanitation District
22. Parker Water and Sanitation District
23. City and County of Broomfield
24. Leprino Foods Company
25. Swift Beef Company