



STATE OF COLORADO

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
Water Quality Control Division

APPENDIX B

DIVISION RESPONSE TO PUBLIC COMMENTS

CDPS GENERAL PERMIT COG500000

FOR
DISCHARGES FROM SAND AND GRAVEL MINING AND PROCESSING
(AND OTHER NONMETALLIC MINERALS EXCEPT FUEL)

COLORADO DISCHARGE PERMIT SYSTEM

October 13, 2016

This document provides the Water Quality Control Division's (Division) Response to Public Comments for CDPS General Permit COG500000. This permit and the associated Fact Sheet were posted for public notice on April 25, 2014. All comments received by the Division are arranged by applicable permit section, and reflect the renewal permit numbering format. Only those permit sections for which comments were received are addressed in this document.

Note that some of the attachments to a few of the comments were not included in this document due to their size or length. Interested parties may obtain copies of the original comments in their entirety from the division, online through the following link:
<http://environmentalrecords.colorado.gov/HPRMWebDrawer/Record>.

Changes to the permit or Fact Sheet made in response to comments, or as initiated by the Division, are identified by permit section in this document. The Division made several editorial-only (e.g., spelling, grammar, punctuation, format) changes to the permit – these corrections are not further discussed.

TABLE OF CONTENTS

NUMBERING CONVENTION FOR COMMENTS.....4

GENERAL COMMENTS.....4

 Comment ID: COG50-2.14

 Comment ID: COG50-3.15

 Comment ID: COG50-3.35

 Comment ID: COG50-4.77

 Comment ID: COG50-7.18

 Comment ID: COG50-11.18

 Comment ID: COG50-5.29

PART I.....9

A. COVERAGE UNDER THIS PERMIT9

 1. Activities Covered9

 Comment ID: COG50-8.19

 Comment ID: COG50-5.410

 2. Limitations on Coverage12

 Comment ID: COG50-2.212

 Comment ID: COG50-4.613

 Comment ID: COG50-13.614

 Comment ID: COG50-2.314

 Comment ID: COG50-3.414

 Comment ID: COG50-4.215

 Comment ID: COG50-13.115

 Comment ID: COG50-4.915

 Comment ID: COG50-4.115

 Comment ID: COG50-4.816

 Comment ID: COG50-13.217

 Comment ID: COG50-2.417

 Comment ID: COG50-4.518

 Comment ID: COG50-5.318

 Comment ID: COG50-0.118

 Comment ID: COG50-0.219

 3. Chemical addition19

 Comment ID: COG50-4.1019

 4. Obtaining and maintaining Authorization under this permit19

 Comment ID: COG50-8.219

 7. Permit Termination Procedures20

 Comment ID: COG50-3.220

C. EFFLUENT LIMITATIONS and MONITORING REQUIREMENTS.....20

 1. Process Water Discharge Effluent Limitations20

 Comment ID: COG50-3.521

 Comment ID: COG50-4.1121

 Comment ID: COG50-3.722

 Comment ID: COG50-3.822

 Comment ID: COG50-3.623

 Comment ID: COG50-4.323

 Comment ID: COG50-4.1523

 Comment ID: COG50-4.1625

 Comment ID: COG50-12.125

 Comment ID: COG50-12.227

 Comment ID: COG50-12.327

 Comment ID: COG50-12.428

 Comment ID: COG50-12.530

 Comment ID: COG50-12.632

 Comment ID: COG50-12.733

 Comment ID: COG50-12.833

 Comment ID: COG50-4.434

Comment ID: COG50-10.1	35
2. Stormwater Discharge Effluent Limitations	35
Comment ID: COG50-8.3	35
Comment ID: COG50-5.5	36
Comment ID: COG50-8.4	36
D. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS.....	37
1. WET Test Requirements	37
Comment ID: COG50-3.9	37
F. REPORTING AND RECORDKEEPING	37
1. Routine Reporting of data – DMRs.....	37
Comment ID: COG50-0.3	38
H. GENERAL MONITORING REQUIREMENTS - Stormwater Only	38
Comment ID: COG50-5.6	38
2. Detained stormwater	39
Comment ID: COG50-8.5	39
4. Sample Type and Requirements.....	40
Comment ID: COG50-8.6	40
7. Monitoring Exceptions for Inactive and Unstaffed Sites	40
Comment ID: COG50-8.7	40
Comment ID: COG50-5.7	41
Comment ID: COG50-5.8	42
Comment ID: COG50-0.4	43
I. SPECIFIC MONITORING REQUIREMENTS - Stormwater Only.....	43
Comment ID: COG50-1.1	43
1. Visual Monitoring	44
Comment ID: COG50-3.10	44
Comment ID: COG50-4.12	45
Comment ID: COG50-5.9	45
Comment ID: COG50-8.8	46
Comment ID: COG50-13.3	46
3. Water Quality Standards Monitoring	47
Comment ID: COG50-3.12	47
J. FACILITY INSPECTIONS - Stormwater Only	47
1. Inspection frequency and personnel.....	47
Comment ID: COG50-3.11	47
Comment ID: COG50-4.13	48
Comment ID: COG50-5.10	49
Comment ID: COG50-5.11	49
3. Inspection documentation	50
Comment ID: COG50-13.5	51
4. Exception to inspection frequency for inactive and unstaffed sites that meet the condition of no exposure	51
Comment ID: COG50-5.12	51
Comment ID: COG50-13.4	52
4. Increased inspection frequency for inactive and unstaffed sites that DO NOT meet the condition of no exposure	53
Comment ID: COG50-5.13	53
K. CORRECTIVE ACTIONS - Stormwater Only.....	53
Comment ID: COG50-4.14	53
L. GENERAL SWMP REQUIREMENTS - Stormwater Only.....	53
Comment ID: COG50-5.1	53
M. SPECIFIC SWMP REQUIREMENTS - Stormwater Only.....	54
7. Inspection Procedures and Documentation.....	54
Comment ID: COG50-5.14	54
Comment ID: COG50-8.9	54
APPENDIX C - Definitions	54
Comment ID: COG50-5.15	54

NUMBERING CONVENTION FOR COMMENTS

Commenter	Comment ID
Water Quality Control Division changes	COG50-0.XX
American Gypsum	COG50-1.XX
Colorado Asphalt Pavement Association	COG50-2.XX
Colorado Mining Association	COG50-3.XX
Colorado Stone, Sand & Gravel Association	COG50-4.XX
Colorado Springs Utilities	COG50-5.XX
Elam Construction Inc.	COG50-6.XX
Front Range Aggregates, LLC	COG50-7.XX
Holcim (US) Inc.	COG50-8.XX
Martin Marietta Materials	COG50-9.XX
Rocky Mountain Aggregate	COG50-10.XX
Varra Companies, Inc.	COG50-11.XX
Wright Water Engineers	COG50-12.XX
Loveland Ready Mix Concrete, Inc.	COG50-13.XX

GENERAL COMMENTS

Comment ID: COG50-2.1

Author Name: Thomas M. Peterson

Organization: Colorado Asphalt Pavement Association

Increased effort for compliance: At the Outreach Meeting held on May 23 in Loveland, much time was spent by you and Ms. Rosow in explaining the increased effort that will be needed for monitoring, sampling, testing, documenting, reporting, and submittals to meet the permit requirements plus more stringent requirements to construct and maintain BMP’s (Control Measures). The questions we ask are, *“What is the estimated increase in cost per facility to comply with the permit requirements and what is the expected benefit in reduced pollution?”* Can you provide an answer to these very critically important questions?

Division Response

Please note that many of the monitoring, recordkeeping, or BMP requirements identified in the comment existed in the previous permit(s), or are clarifications of the previous permit requirements and division expectations, and are not additional requirements.

For example, monitoring parameters in the final permit remain unchanged from that in the previous permit for technology-based effluent limitations (pH; oil and grease; and TSS), and also for the majority of water quality-based effluent limitations such as TDS; phosphorus; WET; and other pollutants of concern, which can include metals , organics etc. The standardized monitoring frequency in the final permit (2x monthly) is the same as the previous certifications for ~90% of permittees; for some, this standardized frequency is less than previously required.

The SWMP in the previous permits required documentation of pollutant sources and the practices/procedures implemented for their control. With respect to the comment on BMPs, both the previous and the renewal permit contain requirements for selecting and implementing BMPs (or Control Measures) in a manner that appropriately manages the pollutant sources at the facility. In the renewal permit, the division clarified this requirement to ensure permittees understand what their regulatory obligations are with respect to compliance with the permit. Therefore, there are not “more stringent requirements to construct and maintain BMPs (Control Measures)” as indicated in the comment.

Cost Benefit Analysis

The division added a section to the fact sheet that addresses cost benefit analyses for development of permit terms and conditions. Please also see response to Comment ID: COG50-4.8. No changes were made to the fact sheet or permit with respect to monitoring or recordkeeping in response to this comment.

Comment ID: COG50-3.1

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Combining permits: CMA supports the WQCD's decision to combine the stormwater and process water general permits, COG340000 and COG500000, respectively. This should simplify the permitting process for sand and gravel operations, as long as there are clear definitions of process water and stormwater. The complexity of sand and gravel operations often leads to the commingling of process water and stormwater, and there should also be well-defined procedures for determining requirements on these types of waters.

Division Response

The division appreciates CMA's support for combining CDPS permits COR340000 and COG500000 in the renewal permit. The permit and fact sheet clarify, by definition or example, the difference between process water, stormwater, and commingled discharges. The division added clarity to the final fact sheet and permit pertinent to the requirements for each type of discharge.

Comment ID: COG50-3.3

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Overall permit complexity: CMA acknowledges that the Water Quality Control Division has made some changes that will simplify this permit and will assist the dischargers in complying. Overall however, CMA believes that the WQCD can make this permit more streamlined while providing an equal level of environmental protection. First, many of the changes that have been made are a result of two sources: 1) the Federal EPA MSGP and 2) the review of onsite inspections and Discharge Monitoring Reports (DMRs) from the previous permit. First, CMA would like to reiterate comments made on the pre-publication draft of the coal mining general permit that the benefit of a general permit is lost to both the permittee and the State as more and more requirements are added to the permit. Just because the MSGP contains a requirement does not mean that it is appropriate or necessary for Colorado operations.

Second, CMA appreciates the fact that actual DMR data was reviewed to determine where requirements were lacking and where issues may exist. However, CMA does not agree with the WQCD interpretation of those results in all cases. For example, the first analysis is for flow and states that 70% of time, facilities reported "no discharge" conditions over the previous 5-year period. The draft permit then proceeds to impose additional requirements for flow (discussed in subsequent comment). Rather, the fact that the data shows that under normal conditions these operations are not discharging and pose minimal environmental risk, gives the WQCD latitude to *lessen* permit requirements, not increase them.

Last, although CMA feels many of these requirements are overly complicated for large operations, they are even more onerous for small operations. The permit should consider the operation's overall footprint and onsite activities when imposing requirements. Permit writers should be given leeway to exclude requirements where risk is considered minimal. Following are some examples of where the draft requirements are overly stringent and/or complex.

- Permit applicability (construction activity over one acre), [see Comment ID: COG50-2.2]
- Process water requirements: Flow limitations and monitoring, [see Comment ID: COG50-3.5]
- Process water requirements: Selenium and related definitions, [see Comment ID: COG50-3.6]
- Process water requirements: TDS monitoring, [see Comment ID: COG50-3.7]
- Process water requirements: Phosphorus monitoring, [see Comment ID: COG50-3.8]
- Process water requirements: WET testing, [see Comment ID: COG50-3.9]
- Stormwater requirements: Visual sampling, [see Comment ID: COG50-3.10]
- Stormwater requirements: Inspection requirements, [see Comment ID: COG50-3.11]
- Stormwater requirements: WQBELs, [see Comment ID: COG50-3.12]

Division Response

Note: the division's responses to comments in paragraph form above are provided below. The division's responses to the specific examples provided by the commenter (bulleted list) are identified in brackets following each bullet.

General permit requirements

With respect to stormwater discharges, the division agrees with CMA that just because the MSGP contains a requirement does not mean that it is appropriate or necessary for Colorado operations. For example and as stated in the fact sheet, renewal permit COG500000 did not adopt benchmark monitoring of stormwater discharges from SIC code 14 industrial activities as required in the 2008 EPA MSGP, but instead relies on compliance with the technology-based effluent limitations and other terms and conditions of the permit to control stormwater discharges. The division intentionally and thoughtfully deviated from EPA's approach on SIC code 14 benchmarks, and the result was a reduction in the sampling/reporting requirements for the permittee. Other examples of the division deviating from EPA's approach in the 2008 MSGP include not covering construction activities greater than 1 acre for the reasons provided at Comment ID: COG50-2.2, and requiring four inspections per year instead of the five EPA requires in the 2008 EPA MSGP. In cases where the division adopted the approach taken in the MSGP the determination was intentional and thoughtful and is documented in the fact sheet.

Lastly, the division wishes to provide information relevant to the role and benefits of general permits (GPs) and individual permits (IPs) in the CDPS permitting framework. The GP is often a streamlined permitting approach for qualifying facility discharges when compared to the individual permit process for reasons such as: 1) the GP facilitates permit coverage for a large number of facilities; 2) renewal of the GP occurs for all the covered facilities at once as opposed to individually; 3) the GP has a simplified application form; 4) GP certifications are issued more quickly than individual permits; 5) GP conditions are consistent with other similar facilities (i.e., promotes a level playing field); 6) GP requirements are available prior to applying for coverage; and 7) the GP annual fee is generally less than the individual permit fee. For these reasons, obtaining permit coverage under a general permit may be a benefit to a permittee, but coverage under a General Permit is not *required*. The permittee may apply for, and obtain coverage under, an Individual CDPES Permit.

Note that the statutory and regulatory direction for permit terms and conditions, specifically the inclusion of effluent limitations, monitoring, recordkeeping, and reporting, are the same for GPs and for Individual Permits. GPs are a tool for administrative efficiency, but are not a mechanism for avoidance of or a lessening of regulatory requirements. Further, while this general permit includes a number of flexibilities to cover differences in operational and discharge situations, it is not intended to cover every possible scenario within the industry. Therefore, the Division retains the option to require any operation to apply for coverage under an individual permit, and operators may request coverage under an individual permit to accommodate unique site-specific considerations.

Flow requirements at facilities that report "no discharge"

Consistent with Regulation 61.8(2)(i), which requires that "all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of concentration and mass or concentration and *flow ...*" (emphasis added), the division must include flow limitations for all outfalls. Therefore, the division does not have discretion to eliminate flow limitations simply because a facility typically does not discharge. However, a facility that never discharges to surface water, should terminate CDPS permit coverage on that basis.

As in the previous permit, the sample type requirement for flow is "instantaneous or continuous" in the renewal permit, which maintains the option for the permittee to measure flow on an instantaneous basis where power is not available. The division found that it was necessary to require additional flow discharge reporting, such as total flow, to better characterize intermittent discharges and for TMDL development and implementation, and other loading analyses. Note that for the facilities that continue to report "no discharge" conditions, there is no additional burden.

Large versus small facilities

All discharges to State Waters, regardless of size, are regulated under the Colorado Water Quality Control Act. Discharges to surface water are implemented via *the Colorado Discharge Permit Regulations*, Regulation No. 61. These regulations require that discharges to surface waters are authorized by a permit, and comply with *the Basic Standards for Surface water*, Regulation No. 31, technology-based limitations established in *the Regulations for Effluent Limitations*, Regulation No. 62, and applicable Federal ELGs. The permitting framework implements these regulations regardless of the size of facilities, or the size of the discharge. For stormwater, the requirement to obtain permit coverage for discharges from the mineral industry is based on SIC code, and does not explicitly consider the size or complexity of the mining operation.

Consistent with Regulation 61.9(2), general permit COG500000 covers a category of discharges, where the sources (A) involve the same or substantially similar types of operations; (B) discharge the same types of wastes; (C) *the same effluent limitations or operating conditions*; and (D) *the same or similar monitoring* (emphasis added). Therefore, general permit COG500000 requirements are the same for small and large facilities. Note that in many cases, the more complex the facility (e.g., large size, varied pollutant sources, multiple industrial activities, steep terrain, etc.), the more complicated its stormwater management

becomes; therefore, small and uncomplicated facilities should not experience the same effort to comply with the renewal permit terms and conditions as a larger, more complicated facility.

No changes were made to the permit with respect to these comments.

Comment ID: COG50-4.7

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association

Request for studies and data: The industry understands the need to abide by scientifically supported information and would like to see peer reviewed studies and data where applicable.

Division Response

The division is uncertain of the specific nature of the comment, but assumes that the comment is a request for documentation of the pollutants of concern at sand and gravel mining facilities, including batch plant discharges. This information is provided below.

Sand and Gravel

The Development Document for Effluent Limitations Guidelines and Standards for the Mineral Mining and Processing Industry Point Source Category (EPA 440/1-76/059b, July 1979) provides the supporting data and rationale for development of the ELGs and standards of performance for this point source category (i.e., 40 CFR Part 436). The major waste water pollutant parameters identified in the development document include total suspended solids, dissolved solids, iron, zinc, fluoride and pH. Note that a number of additional pollutant parameters were studied in the development document, including metals, temperature, asbestos, and radium 226, but were not found to be significant at the time the development document was published.

Further, for stormwater discharges, the EPA documented the pollutants that are typically associated with sand and gravel mining operations in the federal register with the issue of the 1995 MSGP (60 Federal Register 189, p. 50919. September 29, 1995). For most activities, such as site preparation, mineral extraction, mineral processing, and reclamation, typical pollutants included dust, total suspended solids, total dissolved solids, and turbidity. EPA also identified the potential for pollution from oil and fuel, and other toxic contaminants, such as metals, benzene, trichloroethane, tetrachloroethylene, polyaromatic hydrocarbons, and solvents from equipment and vehicle maintenance, as well as nitrogen and phosphorus from any fertilizer used in reclamation activities. In 2006, EPA issued an industrial stormwater factsheet series and identified the pollutants that may be present in stormwater discharges from sand and gravel operations and BMPs to control these pollutants (US Environmental Protection Agency. EPA-833-F-06-025, Dec. 2006). The pollutants identified in the 1995 FR were also identified in the 2006 fact sheet.

With respect to selenium, numerous peer-reviewed articles on the environmental impacts of elevated selenium levels on aquatic life have been published. Several of these studies are cited in the January, 2011 TMDL. (*See, i.e., Ohlendorf, et al., 1986, 1988*). These studies, and the potential impacts to aquatic species from selenium, were considered as part of the development process for the TMDL. EPA provides several peer reviewed studies on selenium toxicity in aquatic life on their website at: www.epa.gov/wqc/aquatic-life-criterion-selenium-documents.

Asphalt Batch Plants

EPA documented the pollutants that are typically associated with asphalt paving manufacturing facilities, which includes asphalt batch plants, in the federal register with the issue of the 1995 MSGP (60 Federal Register 189, p. 50861. September 29, 1995). For material storage and handling activities, typical pollutants included total suspended solids, oil and grease, pH and chemical oxygen demand (COD).

In addition, the 2006 industrial factsheet series issued by EPA for Asphalt Paving and Roofing Materials Manufacturers and Lubricant Manufacturers (US Environmental Protection Agency. EPA-833-F-06-019, Dec. 2006) identifies the pollutants that may be present in stormwater discharges from these industrial activities, which includes asphalt batch plants. This factsheet expands the list of pollutants identified in the 1995 FR to also include total dissolved solids (TDS), biochemical oxygen demand (BOD), benzene, methylene blue active substances (MBAS), and metals.

Concrete Batch Plants

EPA documented the pollutants that are typically associated with concrete mixing operations in the federal register with the issue of the 1995 MSGP (60 Federal Register 189, p. 50869 and 50870. September 29, 1995). For concrete mixing activities, typical pollutants included TSS, pH, COD, lead, iron and zinc. At facilities that also conduct equipment/vehicle fueling and maintenance, additional potential pollutants included oil and grease, BOD, lead, aluminum, arsenic, cadmium, chromium, and benzene.

In 2006, EPA issued an industrial stormwater factsheet series and identified the pollutants that may be present in stormwater discharges from concrete manufacturing operations and BMPs to control these pollutants (US Environmental Protection Agency. EPA-833-F-06-020, Dec. 2006). The pollutants identified in the 2006 fact sheet included TSS, pH, COD, lead, iron, zinc, oil and grease, BOD.

No changes were made to the permit in response to this comment.

Comment ID: COG50-7.1

Author Name: Mike Sheahan

Organization: Front Range Aggregates

Expanded regulations and lack of clarity: The draft rewrite of CDPHE Permit COG500000, as I interpret it is cause for considerable concern. As an aggregate producer, a company that would be required to comply with the broadly expanded regulations contemplated, the draft permit creates a variety of gray areas that are not clearly objective directions with clearly defined outcomes.

Rather than attempting to restate specific concerns of my company, I am including a copy of Todd Ohlheiser's letter to you on behalf of Colorado Stone Sand and Gravel Association regarding this issue. I support Todd's comments and urge you and your staff to reconsider the attempt to vastly expand the regulatory scope of the discharge permit while reducing the clarity of the document with little or no evidence that it will improve the quality of the discharged water.

Division Response

The division wishes to clarify that renewal permit COG500000 is a permit action, not a regulation action. The permit implements existing regulation, and the division made changes to the permit to clarify and update effluent limitations and other terms and conditions, consistent with already established regulatory requirements and direction, and division practice.

Please see response to the Colorado Stone Sand and Gravel Association's comments (Comment ID: COG50-4.1, 4.2, 4.3, etc)

Comment ID: COG50-11.1

Author Name: Garrett Varra

Organization: Varra Companies Inc.

Economic impact: First I have attached a letter written by CSSGA Director Todd Ohlheiser (I am sure you have seen it). I stand behind his comments fully. Second, I have attached an article by Jay Lehr that I ask you read and share with others in your department. It is rather old, but the point of the article brings to light the heart of our issue, specifically the COG500000 permit, and in a more broad sense, the issues facing us all as inhabitants of this planet.

I do not believe the goals of the mining industry run contrary to the goal of having clean water (or air). I believe, most of the time, that many people who get in to the mining industry are people who love the environment. I know that is what pushed me towards it as a child. Where we do differ is in how to achieve the goal of clean water (or air or soil). As someone who operates a mining business I will be blunt, if we enacted every regulation possible to keep our water (soil/air) clean, we will bankrupt our country. You see, humans make a mess, especially in the pursuit of happiness. It is all of our jobs to balance cleaning up the mess (environmental concerns), without creating another misery behind it (economic concerns). We walk a thin line while doing it.

My thoughts on this are not self-serving. I want to be clear. Whatever regulation is enacted, we will live with it. However, we have to acknowledge the value of construction materials to the overall economy. The new COG500000 permit represents an additional cost that our overall economy will have to absorb. That is the economy that provides for us. I would caution everyone, not just you and your colleagues at WQCD, that we have to keep walking this thin line without falling to one side or the other. I think in this case specifically that may mean more time and study, especially when it comes to selenium.

To sum it up, we have to protect the environment while also protecting the economy. Having one without the other ruins the legacy that we have inherited and are safeguarding for the next generation. We must be careful.

Division Response

The division added a section to the fact sheet that addresses cost benefit analyses for development of permit terms and conditions - please also see response to Comment ID: COG50-4.8. With respect to the portion of the comment regarding selenium, please see responses to Comment ID: COG50-3.6, COG50-4.3, COG50-4.15, COG50-4.16, and COG50-12.1 through - COG50-12.8 and Section VI.A.4.j of the Fact Sheet. No changes were made to the permit in response to this comment.

Comment ID: COG50-5.2

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

Duplicate regulations: Several industrial facilities to be permitted under COG500000 have Air Quality Control Commission (AQCC) construction permits. These permits typically include control measures and requirements designed to minimize generation of fugitive particulate emissions from industrial processes (haul roads, vehicle tracking, stockpiles, material transfer, material processing, etc.). The requirements in the draft COG500000 regarding particulate emissions appear to be duplicative to the AQCC requirements, which could result in redundant regulation. Please consider adding an exception to these requirements for facilities with AQCC permits. (AQCC, Regulation No. 1, 5 CCR 1001-3, III.D). (see requirements at Parts I.M.4.a.iv, M.4.b.iii, and C.2.a.xi of the permit).

Division Response

Dust control requirements are not new for the renewal permit. The previous permits (COR340000 and COG500000) required that the permittee implement Best Management Practices (BMPs) for significant dust and particulate generating activities (see Part I.B and Part I.C, respectively). Fugitive particulate emissions from industrial processes are potential pollutant sources with respect to stormwater discharges. Fugitive particulate emissions that are deposited on surfaces may be discharged with stormwater from the facility.

Control measures selected by the permittee for an air permit may also function as control measures for stormwater discharges, to comply with the Practice-based Effluent Limitations in this permit. The division views the requirements as complimentary. To ensure water quality protection, the division maintains that the requirement for Dust Generation and Vehicle Tracking of Industrial Materials, and associated requirements in the stormwater management plan, are necessary.

No changes were made to the permit in response to this comment.

PART I

A. COVERAGE UNDER THIS PERMIT

1. Activities Covered

Comment ID: COG50-8.1

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Process water and stormwater applicability clarification: Part I.A.1 of the draft permit contains discharge standards and requirements for discharges of both process water and stormwater. Part I.A.1 of the draft permit states which sections of the permit apply to which type of discharge. Specifically, the permit states:

The permit contains both process water and storm water provisions, as follows:

- *Applicable to process water and stormwater discharges: Parts I.A, 8, E, and F; Part II; Part III; and Appendices A and C*
- *Applicable to process water discharges, only: Part I.C.I, Part D; Appendix 8*
- *Applicable to stormwater discharges, only: Part I.C.2 and Parts I.G through O*

The permit should be more clear to which sections of the permit apply to discharges of that only contain process water or stormwater. For example, if a permit is issued for discharging stormwater, only, are there any sections in Part II, Part III, or any of the appendices that apply?

Division Response

The first bullet point from the draft permit (see above) applies to **all** discharges covered under the permit, i.e., both process water and stormwater. For clarity, the division modified Part I.A.1 of the permit so that the first bullet point reads as “Applicable to all discharges” rather than “applicable to process water and stormwater discharges.”

Comment ID: COG50-5.4

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

From the draft permit, natural stormwater runoff from a dry mine pit appears to be included as a Stormwater discharge.

Part I.A.1.b.ix. “**all disturbed areas**, including mine pit out slopes”

Note that **natural runoff** from a **dry** mine pit is not described in allowable process water discharges:

Part. I.A.1.a.i. “mine dewatering, which includes:

· Any water, including groundwater and stormwater, that is impounded or that collects in the mine and is pumped, drained, or otherwise removed from the mine **through the efforts of the mine operator;**

· Additionally, for construction sand and gravel facilities and industrial sand facilities only, **wet pit overflow** caused solely by direct rainfall and/or groundwater seepage

ii. Process generated wastewater, which includes any wastewater used in slurry transport of mined materials, air emissions control, and processing exclusive to mining (40 CFR Part 436)

iii. Water **used** in sand and gravel processing

iv. Stormwater runoff that becomes comingled with the above listed wastewaters before the discharge point.

Language in the draft permit seems to mirror the EPA’s Mineral Mining and Processing Effluent Guidelines (40 CFR Part 436, Subpart C (section 31)). However, based on conversations with the Division, it appears the Division’s intent is to include all runoff from the mine “pit” as an allowable process water discharge. We disagree with the opinion verbally expressed by the Division that any stormwater runoff contacting mining “pits” is process water, based on our understanding of EPA and CDPHE definitions.

We request the Division cite applicable regulations that would otherwise lead to inclusion of all natural surface runoff contacting a dry mine pit in the definition of process water. Additionally, we request clarification of the exact limits and definition of a mine “pit”, as contrasted with processing areas, outcrops, drainages created during the mining process, mined slopes, “all disturbed areas”, etc. We also request the Division include a definition of “**wet** pit” in the permit.

Division Response

Process water vs. stormwater

Division practice for the sand and gravel sector has been and continues to be that any mine dewatering water (groundwater and stormwater) that is discharged from the facility cannot be covered under a stormwater-only permit certification, and instead, requires permit coverage under COG500000, which contains applicable sampling provisions for process water. The practice relates to the applicability of the federal ELG to mine dewatering discharges, the pollutant potential of stormwater that is contained in or flows through mine workings, the likelihood for commingling of stormwater and groundwater in the mining pit, and the limitations on coverage of stormwater-only permits, which typically do not allow coverage for discharges subject to federal ELGs. The division’s intent with the language in Part I.A.1.a of the renewal permit was to clarify this historical practice to improve transparency for the stakeholder community and certainty for applicants/permittees. For renewal permit COG500000 and consistent with division practice for the sand and gravel sector, both types of discharges are addressed as “process water” in the permit. To respond to the comment, specific examples of division practice and detail regarding interpretation of the ELG follow.

- Existing CDPS permit COR340000 (administratively continued) makes it clear that mine dewatering of runoff is considered process water, and is not authorized by the permit (Part I.A.1.b) as follows (bold emphasis added):

b. Stormwater vs. Process water: When stormwater mixes with process water, any discharge of the resulting mixed water to state waters must be authorized by a separate CDPS discharge permit. For purposes of this permit, **discharge of process-generated wastewaters are not authorized by this permit**, including:

- 1) Product wash waters;
- 2) Maintenance/equipment wash waters;
- 3) Transport waters;
- 4) Scrubber waters (crushers or classifiers);
- 5) **Mine dewatering (groundwater and/or runoff);**
- 6) Other process water as determined by the permit issuing authority;
- 7) Stormwater runoff from mine or processing areas; and
- 8) Stormwater runoff, which mixes with process generated wastewater before sampling.

- The permit applications for this industrial sector distinguish stormwater-only discharges from process water discharges in the following manner:

COR340000 permit application excerpt:

IS THIS THE CORRECT APPLICATION FOR YOUR FACILITY?

This application is for use by all industrial stormwater-only dischargers engaged in sand and gravel production operations (and other nonmetallic minerals, except fuels). This application is for both active and inactive mining operations, and concrete and asphalt batch plants at the facility. It is suggested that all applicants contact the Division of Reclamation, Mining and Safety at the Colorado Department of Natural Resources, for information on their rules and regulations for Sand and Gravel mining and processing.

Are any of the following discharged from the sand and gravel production operation subject to this application?

- YES NO Product wash waters?
YES NO Maintenance/Equipment wash waters?
YES NO Transport waters (e.g. slurries)?
YES NO Scrubber waters (Crushers or classifiers)?
YES NO **Mine dewatering (groundwater and/or runoff from the mine)?**

If the answer is **YES** to any of these questions, **DO NOT** complete this application. Instead, complete the application for Discharges Associated with Sand and Gravel Mining and Processing (**COG500000**).

COG500000 permit application excerpt:

IS THIS THE CORRECT APPLICATION FOR YOUR FACILITY?

This application is for use by all industrial process water dischargers, or process water plus stormwater dischargers, engaged in sand and gravel production operations (and other nonmetallic minerals, except fuels). This application is for both active and inactive mining operations and concrete and asphalt batch plants at the facility. It is suggested that all applicants contact the Division of Reclamation, Mining and Safety at the Colorado Department of Natural Resources, for information on their rules and regulations for Sand and Gravel mining and processing.

Are any of the following discharged from the sand and gravel production operation subject to this application?

- YES NO Product wash waters?
YES NO Maintenance/Equipment wash waters?
YES NO Transport waters (e.g. slurries)?
YES NO Scrubber waters (Crushers or classifiers)?
YES NO **Mine dewatering (groundwater and/or runoff from the mine)?**

If the answer is **YES** to any of these questions, this is the correct application for the discharge.

If the answer is **NO** to **ALL** of these questions, **STOP NOW**, and instead, complete the application for Stormwater Discharges Associated with Sand and Gravel Mining and Processing (COR340000).

With respect to surface runoff and the applicability of the federal ELG, the Development Document for Effluent Limitations Guidelines and Standards for the Mineral Mining and Processing Industry Point Source Category (EPA 440/1-76/059b, July 1979) provides the supporting data and rationale for development of the ELGs and standards of performance for this point source category (i.e., 40 CFR Part 436). This document clearly indicates that mine dewatering includes **surface runoff** that is directed to the mine pit. The development document (Section IX - Effluent Reduction Attainable Through The Application Of The Best Practicable Control Technology Currently Available) identifies that 'mine dewatering wastewater is that portion of mine drainage that is **pumped, drained, or otherwise removed from the mine through the direct action of the mine operator**', and goes on to state that 'pit pumpage of ground water, seepage and precipitation or **surface runoff** entering the active mine

workings is an example of mine dewatering' (emphasis added). Therefore, 'natural surface runoff' that enters the pit and is dewatered, whether dewatering occurs actively or passively, falls within the category of 'mine dewatering' as provided in the development document. To reiterate, division practice for the sand and gravel sector has been and continues to be that any mine dewatering water, which includes surface runoff as described above, that is discharged from the facility is subject to the process water provisions in the permit.

No changes were made to the permit with respect to this portion of the comment.

Mine pit

The permit currently provides a list of those areas from which stormwater discharges are eligible for coverage, i.e., not considered process water. For clarity, the division modified two parts of the permit to ensure that permittees understand what is considered process water vs. stormwater for this permit: Part I.A.1.a to indicate that mine dewatering refers to dewatering from the mine pit (surface or underground mine workings), and Part I.A.1.b.viii of the permit to clarify that allowable stormwater discharges from disturbed areas do not include mine dewatering. The fact sheet was also updated with these changes.

Wet pit

While a definition of wet pit is not specifically provided in the federal ELG (40 CFR 436), the development document generally refers to a wet pit as non-navigable waters (frequently a flooded dry pit), from which raw material is extracted using dragline or barge-mounted dredging equipment (hydraulic dredge), both above and below the water table. For clarity, the division added this definition to the permit, and updated the fact sheet with this change.

2. Limitations on Coverage

Comment ID: COG50-2.2

Author Name: Thomas M. Peterson

Organization: Colorado Asphalt Pavement Association

Additional permit requirements: It appears that an operation that currently has a single contained SWMP with a single discharge permit that includes a batch plant, asphalt plant, haul roads and a quarry within the contained permit area will be forced to develop 4 separate permits, one each for the batch plant, asphalt, haul roads and quarry. This is unnecessary and will cause additional reporting and ineffective monitoring for the Department. It will be very difficult and impractical to set up and keep track of 4 separate SWMP's, 4 separate monitoring/testing regimes, and 4 separate sets of control measures to manage comingled process waters.

Division Response

Concrete and asphalt batch plants:

The division proposed to exclude stormwater and process water discharges from concrete and asphalt batch plants in the public notice version of the renewal permit. The division received significant stakeholder comment on this proposed approach, and after considering the comments, modified the permit to authorize stormwater discharges from concrete and asphalt batch plants at sand and gravel facilities.

Specifically, discharges from **fixed** concrete and asphalt batch plant facilities located at sand and gravel facilities are now authorized in the final permit. In addition, discharges from **mobile** concrete and asphalt batch plants that operate at sand and gravel facilities, where the sand and gravel facility is permitted for such operations, may be covered by this permit. Note that mobile concrete and asphalt batch plants that operate at sand and gravel facilities, where the facility is NOT permitted for such operations, must obtain alternate permit coverage, currently under CDPS general permit COR900000.

The division also modified the permit to authorize stormwater discharges from asphalt and concrete recycling activities under COG500000, as further discussed in the response to Comment ID: COG50-5.3. The division changed Parts I.A.1 and I.A.2 of the permit, and added specific provisions throughout the permit to address these changes; associated language was added to the fact sheet.

Haul roads and the Construction stormwater permit:

The division has historically required, and continues to require, separate permit coverage for stormwater discharges from construction activities that exceed the one-acre threshold at facilities covered by an existing industrial stormwater permit. This approach is the same as that taken by EPA in early iterations of the MSGP (please see the March 1992 and July 1993 NPDES Storm Water Program Question And Answer Document, Volumes 1 and 2, [EPA 833-F-93-002 and EPA 833-F-93-002 B, respectively]).

The division is consistent in applying this approach at all facilities where both a construction and industrial stormwater permit are applicable, or where a stormwater discharge is otherwise excluded from the permit requirement. For example, construction stormwater permit coverage is required for land disturbing activities of one or more acres (e.g., construction of buildings [such as barns, livestock feeding facilities], structures, roads, or development for a future land use) on agricultural land where the agricultural stormwater runoff exclusion typically applies. In addition, one or more acres of land disturbing activities for the construction of well pads, pipeline right-of-ways, and roads for the oil and gas industry also requires separate construction stormwater permit coverage. Similarly, the requirement to obtain separate permit coverage for stormwater discharges from construction activities also applies to all entities (approximately 950 facilities) that operate under general permit COR900000 (Stormwater Discharges Associated with Non-Extractive Industrial Activity).

To be clear, construction activity **does not** include land disturbance resulting from the act of mining at sand and gravel facilities, but **does** include the construction of facilities associated with mining, including but not limited to haul roads; pads; lay down areas; structures; areas that serve a support function such as transportation or storage; development for a future land use, etc.

As provided in the fact sheet, the division considered including construction activities (those that exceed one-acre of disturbance) as an industrial activity authorized under this renewal permit. However, the division determined that because an ELG has been promulgated by EPA for the construction and development category (Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category, 40 CFR Part 450), it was more appropriate to interpret the ELG during renewal of the CDPS stormwater construction permit (COR030000).

Therefore, stormwater discharges from construction activities at the facility that exceed the one-acre threshold and *that do not commingle with process water* from the facility (see discussion on **Commingled discharges** below), must be covered by a separate stormwater construction permit certification. Stormwater discharges from construction activities at the facility that exceed the one-acre threshold, but *that commingle with process water* from the facility are not required to be covered by a separate stormwater construction permit certification. The division has clarified this in the fact sheet.

Commingled discharges:

Stormwater runoff (from industrial or construction activities) that combines with process water (such as water in the mine pit) are subject to the process water provisions in the permit, and the stormwater provisions do not apply. This approach also applies to stormwater runoff from construction activities at the facility that exceed the one-acre threshold; specifically, if run-off from such activities commingles with facility process water, the commingled discharge is subject to the process water provisions in the permit, and the activity does not require separate construction stormwater permit coverage. This is consistent with the previous permit. The division has clarified this in the fact sheet.

Comment ID: COG50-4.6

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association

Has the CDPHE considered the detriment this permit will have on the state and local economy? The permit greatly increases companies' costs by requiring multiple permits per site. Prices will be raised on everything from homes to roads, and industrial building projects.

Division Response

The division added a section to the fact sheet that addresses cost benefit analyses for development of permit terms and conditions, and addressed this topic in the response to Comment ID: COG50-4.8. Please see response to Comment ID: COG50-2.2, which addresses the portion of the comment that deals with multiple permits at one facility. No changes were made to the permit in response to this comment.

Comment ID: COG50-13.6

Author Name: Stephanie Fancher

Organization: Loveland Ready Mix Concrete, Inc.

Part 6.2.1.1 of the MSGP calls for quarterly benchmark monitoring for any benchmark parameters specified for the industrial sector(s), *both primary industrial activity and any co-located industrial activities*, applicable to your discharge.

Part 8.E.5 and Part 8.J.5 identify effluent limits that apply to the corresponding industrial activities. Compliance with these limits are to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under the permit. This section implies that there can be more than one industrial activity occurring on one site and covered by one permit.

Division Response

The division understands the commenter's statement as a request and basis for authorizing stormwater discharges associated with asphalt and concrete batch plants, and asphalt and concrete recycling activities in the permit. The division received significant stakeholder comment on this topic, and after considering the comments, modified the permit to authorize stormwater discharges from concrete and asphalt batch plants, and asphalt and concrete recycling activities.

Please see response to Comment ID: COG50-2.2 and Comment ID: COG50-5.3.

Comment ID: COG50-2.3

Author Name: Thomas M. Peterson

Organization: Colorado Asphalt Pavement Association

Haul roads and construction activity are constantly changing and evolving as mining progresses throughout the site. It will be extremely difficult and impractical to obtain a separate construction permit every time a haul road or conveyor is extended, or every time berms, stockpiles or overburden is moved and grading is done. Please clarify this within the proposed permit.

Division Response

Please see response to Comment ID: COG50-2.2.

Comment ID: COG50-3.4

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Permit Applicability: The WQCD proposes that any disturbance over one acre associated with construction activity must obtain CDPS storm water construction permit. The WQCD argues that it is more efficient if a general permit authorizes only one specific type of discharge. CMA would argue that this requirement is going to be less efficient for both the mine operators and the WQCD. Anytime a site adds an access road, facility area, haul road, or expansion area, it is going to be required to obtain a separate permit, with a permit-specific application process, reporting requirements, and termination process, which will have to be completed by both the mine operation and the WQCD.

Furthermore, it will be difficult for both the operation and the WQCD to determine when the threshold has been crossed to require a separate construction stormwater permit. Mining is a dynamic process and facility layout and configuration can change relatively frequently based on operational conditions and market demands. Similar stormwater control BMPs are used across the mine site, whether for new construction areas or established stormwater areas. Because of these considerations, the entire operation should be covered by a single permit, including both process water discharges and stormwater areas. The stormwater requirements for construction activity should not be limited to areas less than one acre in extent. CMA believes that these construction activities over one acre could be included under this permit and SWMP during construction and until they are stabilized, at which time the area could be removed from the SWMP if they no longer meet the definition of a stormwater discharge.

Division Response

Please see response to Comment ID: COG50-2.2.

Comment ID: COG50-4.2

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association

Haul roads and construction activity are constantly changing and evolving as mining progresses throughout the site. It will be extremely difficult and impractical to obtain a separate construction permit every time a haul road or conveyor is extended, or every time berms, stockpiles or overburden is moved and grading is done to advance the mining footprint as mine sites are constantly changing with the mining.

Division Response

Please see response to Comment ID: COG50-2.2.

Comment ID: COG50-13.1

Author Name: Stephanie Fancher

Organization: Loveland Ready Mix Concrete, Inc.

Part 1.1.4.2 of MSGP states that “Stormwater discharges associated with construction activity disturbing one acre or more, or that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one acre or more, are not eligible for coverage under this permit, *unless in conjunction with mining activities* as specified in SectorsJ of this permit. “

Therefore, construction of haul roads would be covered under the MSGP.

Division Response

The division understands the commenter’s statement as a request and basis for authorizing discharges associated with construction activities in the permit. Note that this is another example of where the division deviated from EPA’s approach in the 2008 MSGP. Please see response to Comment ID: COG50-3.3 and COG50-2.2.

Comment ID: COG50-4.9

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Haul Roads: This same comment applies to haul roads and the use of portable plants. Haul roads and construction activity are constantly changing and evolving as mining progresses throughout the site. It will be extremely difficult and impractical to obtain a separate construction permit every time a haul road or conveyor is extended, or every time berms, stockpiles or overburden is moved and grading is done. Mine sites are constantly changing with the mining. CSSGA appreciates clarification by CDPHE that additional permits would not be required if excavation occurs in an existing permit area. Please let me know if I misunderstand this point.

Division Response

Please see response to Comment ID: COG50-2.2.

Comment ID: COG50-4.1

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association

Both stationary and portable batch plants located within an aggregate mining facility are integral with the mining operation. There is no clear “boundary” between the operations of the aggregate mining operation and the batch plant. How will the department effectively regulate an operation with a batch plant, hot plant and quarry if the operator is now forced to permit these all separately? This is an unnecessary and burdensome separation that will create ineffective monitoring for the department.

- The aggregate screens, washers, crushers, stockpiles are often adjacent to batch plants, with process water from this operation often comingling with process water from the batch plant.

- It will be very difficult and impractical to set up and keep track of 2 separate SWMP's, 2 separate monitoring/testing regimes, and 2 separate sets of control measures to manage comingled process waters. Additionally, how are boundaries between 2 separate permits to be identified? This will be very difficult and impractical to administer for producers as well as inspectors. It will set up a paperwork nightmare.
- Section A.3 calls for permit applicant to submit a list of proposed chemicals used in treatment process. If aggregate facility is set up in such a way as process water from aggregate plant comingles with process water from batch plant, then does producer need to submit list of chemicals used to treat batch plant process water?
- Process water from batch plant operations is fairly straight forward – why is it so important to separate it from the aggregate mining?
- The previous 500000 Permit was working well as far as discharge monitoring is concerned, what data does CDPHE have that supports this change?
- If the aggregate mining and the batch plant are kept as 2 separate permits and the plant is designed so that process water comingles, which situation does the producer need to set up and test for, is the aggregate process water considered running into the batch plant site as run-on, or is the batch plant process water considered running into the aggregate site as run-on, and how does an inspector distinguish the 2 and properly evaluate: monitoring, monitoring frequency, inspections, inspection frequency, benchmark exceedances, corrective actions?

Division Response

Please see response to Comment ID: COG50-2.2 and Comment ID: COG50-4.10.

Comment ID: COG50-4.8

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Complexity of Additional Permits: As the permit is currently drafted, the fact that several different permits will be required to achieve what now falls under one, remains very complex and unwarranted. As there remains no physical boundary between a concrete or asphalt plant and the balance of the mine site, any variation or additional permits between these operations would be nearly impossible to monitor or measure. Your current draft would add unnecessary complexity, yet serve no benefit, as the operator is ultimately responsible for ***water quality as it leaves their site***. Furthermore, in preliminary meetings, the discussions were regarding the possibility of combining permits 340000 and 500000 to help simplify the process. Our industry supported this approach. The aspect of creating several plant specific permits for each site was not discussed and only appeared in the draft permit document. Our industry supports combining the current two-to-one permit (340000 & 500000), but is opposed to creating several additional permits per site. I would request an analysis take place to calculate the additional cost per facility for the operator and CDPHE, as well as an explanation on the expected benefit to the environment. The previous 500000 Permit was working well as far as discharge monitoring is concerned, what data does CDPHE have that supports this change?

Division Response

Please see response to Comment ID: COG50-2.2 for the portion of the comment that discusses multiple permits at one facility.

State law requirements to consider cost-benefit analysis

In general, see the discussion in the fact sheet that addresses cost benefit analyses for development of permit terms and conditions.

This commenter raises some potential issues related to the Division's requirement to consider costs and benefits under state law, specifically §25-8-503.5 (also known as SB 13-0373). The commenter requests that the Division perform an analysis to calculate the additional costs per facility and the expected environmental benefit as a result of the changes to the sand and gravel general permit requirements.

The Division is required to give due weight to a cost-benefit analysis when changing a general permit, but the burden is upon the affected parties to prepare and submit this cost benefit analysis during the comment period. §25-8-503.5(1)(d)(I). A proposed cost benefit analysis concerning one or more of the proposed requirements not already required by federal or state law must be prepared by a third party chosen from an approved list of analysts and paid for by the affected party. §25-8-

503.5(1)(d)(I)-(IV). None of the affected parties prepared and submitted a cost benefit analysis consistent with the requirements of §25-8-503.5 during the comment period.

Comment ID: COG50-13.2

Author Name: Stephanie Fancher

Organization: Loveland Ready Mix Concrete, Inc.

Part 1.1.2 of MSGP, and Part 8 authorizes stormwater discharges from a “primary industrial activity and any co-located industrial activities”, including, mine dewatering discharges at crushed stone, construction sand and gravel, or industrial sand mining facilities, runoff from asphalt emulsion facilities, asphalt paving materials, and concrete product facilities. Sector-specific requirements apply to those areas of the facility where those sector-specific activities occur. This appears to be a much more practical approach to sites that have combined mining and concrete plants on the same site, rather than requiring separate permits.

The potential pollutants from concrete batch plants are very few and easily identified, they are not random “chemicals”. Concrete plants will typically have the following possible pollutants present at the batch plant: cement, fly ash, calcium chloride, small amounts of admixtures and colors. Upon review of MSDS sheets and TRI reports the only reportable toxic chemical from admixtures is Calcium Nitrate which is in aqueous solution. Admixtures and colors are often delivered and stored in totes or smaller drums inside batch plants and therefore often qualify for “no exposure” per the MSGP.

Division Response

The division understands the commenter’s statement as a request and basis for: 1) authorizing discharges associated with asphalt and concrete batch plants, and asphalt and concrete recycling activities in the permit; and 2) for not having to provide the division with the chemicals used in treatment processes at the facility. Please see response to Comment ID: COG50-2.2 and Comment ID: COG50-4.10.

Comment ID: COG50-2.4

Author Name: Thomas M. Peterson

Organization: Colorado Asphalt Pavement Association

Portable/temporary plants: Will portable/temporary plants be required to get a permit under the general industry permit? A portable/temporary plant typically will go to 3 – 4 sites in a calendar year and will go to a site that already has a SWMP with a single discharge permit. To require the portable plant to have a separate SWMP and discharge permit for each site will be costly and confusing and have the same ramifications as described in the second bullet point above. We oppose having a more complex system that will be difficult to attain and enforce.

Division Response

CDPS General Permit COR900000 (Stormwater Discharges Associated with Non-Extractive Industrial Activity) authorizes stormwater discharges from fixed and mobile asphalt and concrete batch plant primary industrial activities. Under COR900000, certifications for mobile asphalt batch plants (SIC code 2951) and mobile concrete batch plants (SIC code 3273), may be issued for a specific plant, with the equipment defined as the facility. This allows batch plants to move around the state without re-applying for permit coverage at each new location.

While COR900000 provides coverage for stormwater discharges from asphalt and concrete batch plants, the Division has decided to include coverage for these types of facilities, that are located at sand and gravel facilities, under the COG500000 permit (please see Comment ID: COG50-2.2). Therefore, the division does not intend to require separate permit coverage for those mobile asphalt and concrete batch plants that operate at sand and gravel facilities.

If a mobile batch plant operation moves to a sand and gravel facility that does not have permit coverage for asphalt and/or concrete batch plant industrial activities, the owner/operator of the batch plant must obtain permit coverage under COR900000 or modify the COG500000 certification to include authorization for discharges associated with the asphalt and/or concrete batch plant(s). Note that under COR900000, permittees must notify the Division in writing each time the mobile plant is moved, and must meet all permit requirements, terms and conditions for each location.

No additional changes were made to the permit.

Comment ID: COG50-4.5

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association

What effect will the permit renewal have on portable/temporary plants? Will they be required to get a permit under the general industry permit? We advocate for a simple system to keep this permit attainable and enforceable; incorporating similar methods that have been established by the Air Quality Control Division.

Division Response

Please see response to Comments ID: COG50-2.4 (Portable/temporary plants) and COG50-2.2.

Comment ID: COG50-5.3

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

The draft permit lists "stormwater discharges resulting from asphalt and concrete recycling activities" as an unauthorized discharge under this permit. The draft fact sheet guides permittees to seek coverage under Sectors D and E of the COR900000 permit.

The activities and pollutant sources associated with concrete and asphalt recycling are not accurately described by the SIC codes covered under Sectors D and E (i.e. concrete recycling does not include raw cement or fine sand stockpiles, added process water, or chemical curing process; asphalt recycling does not include bulk oil storage or usage, emulsion chemical storage or usage, heat sources, or raw aggregate storage). Concrete and asphalt recycling facilities contain similar pollutant sources and activities to sand and gravel processing facilities (e.g. sorting, crushing, and stockpiling of typical construction materials which are used as final products). Recycling facilities do not inherently perform truck and drum washing as part of the recycling. Therefore, we request concrete and asphalt recycling be covered under the revised COG500000 permit.

Additionally, SIC code 1442 (Construction Sand and Gravel) includes facility processes such as crushing, pulverizing, or otherwise treating concrete and asphalt. The description of Major Industrial Group 14 (Mining And Quarrying Of Nonmetallic Minerals, Except Fuels) states: "Establishments primarily engaged in crushing, pulverizing, or otherwise treating other nonmetallic minerals are classified in Mining, whether or not they are operated in conjunction with mines" (WWW.OSHA.gov). Finally, coverage of asphalt and concrete recycling activities under permit COR900000 will force many facilities to seek coverage under two separate permits (COR900000 and COG500000).

Division Response

The division modified the permit to authorize discharges from concrete and asphalt batch plants, as described in the response to Comment ID: COG50-2.2. Because the pollutants associated with asphalt and concrete recycling activities are similar to those for concrete and asphalt batch plants, the division also modified Parts I.A.1 and I.A.2 of the permit to include coverage of discharges from asphalt and concrete recycling activities.

Comment ID: COG50-0.1

Division Initiated Change to the Permit

Organization: Water Quality Control Division

The division modified the final permit to authorize discharges from facilities that are considered 'major' facilities by the NPDES Permit Rating Work Sheet, as the division determined that the general permit allows flexibility to address the factors that resulted in a 'major' determination, i.e., discharge flow and impaired receiving water body, sampling frequency. As a result, the division also modified the permit effluent tables to include monitoring frequency requirements for major facilities in addition to minor facilities. Certifications issued under the permit will identify the facility as major or minor, as determined by the NPDES Permit Rating Worksheet. Most facilities currently covered under the general permit are "minor" facilities.

Comment ID: COG50-0.2
Division Initiated Change to the Permit
Organization: Water Quality Control Division

The division modified the final permit to clarify that discharges from placer mining activities (process water and stormwater) are not eligible for coverage.

Placer mining discharges (SIC code Major Group 10) are subject to a different federal ELG (40 CFR 440) than sand and gravel facilities (40 CFR 436). The previous COG500000 permit scope does not include discharges from placer mining activities, but does not specifically limit coverage of these discharges. The division determined it was appropriate to clarify this limitation of coverage in the final permit. Facilities that conduct both sand and gravel and placer mine activities may obtain permit coverage from the division through an individual permit.

3. Chemical addition

Comment ID: COG50-4.10
Author Name: Todd R. Ohlheiser
Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Duplication of Chemicals Used: Section A.3 calls for the permit applicant to submit a list of proposed chemicals used in the treatment process. If an aggregate facility is set up so that process water from the aggregate plant comingles with process water from a batch plant, why do producers need to submit lists of chemicals used to treat batch plant process water? This appears to be yet another unnecessary step that only adds bureaucracy. Ensuring clean and safe water returned to the environment is the ultimate objective. Producers understand and respect this fact. They already comply with all safety standards under MSHA and/or OSHA and to add yet another agency to report to would be unnecessary.

Division Response

As provided in the permit and fact sheet, discharges with chemical additions (including release agents) are not authorized unless expressly approved by the division, and the division provides notification of such approval to the permittee. The division must know what chemicals, if any, have the potential to be in the discharge from the facility so that it can determine whether organic, inorganic, and/or metal parameters are potential pollutants of concern that must be limited and/or monitored to protect the classified uses assigned to the receiving water. This approach is consistent with all CDPS permitting, whether under a general permit or an individual permit, and is not a new requirement. Part I.A.6 of the previous COG500000 permit required that:

‘No chemicals shall be added to the discharge unless the Division grants specific approval in a certification, letter, or other form of communication. To approve a chemical (including release agents), the Division must have the chemical’s MSDS sheet. All chemicals must be used and stored in accordance with the manufacturer’s recommendations and in accordance with any applicable state or federal regulation.’

Further, some discharges covered under this general permit may exhibit whole effluent toxicity (WET) based on the potential pollutant concentrations in the discharge from chemicals used in the treatment process. In such cases, the division may apply WET testing as a means to ensure that there are no discharges of pollutants "in amounts, concentrations or combinations which are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life"(Regulation 31.11) as required by Section 61.8(2)(D) of the Colorado Discharge Permit System Regulations. WET testing is used to evaluate effluent aquatic toxicity and includes a consideration of the synergistic effects that wastewater may have to aquatic life.

No changes were made to the permit in response to this comment.

4. Obtaining and maintaining Authorization under this permit

Comment ID: COG50-8.2
Author Name: Justin Andrews
Organization: Holcim (US) Inc.

Part I.A.4.c of the draft permit states: *A permittee authorized to discharge under this general permit may request to be excluded from coverage by applying for an individual permit. In this case, the permittee must submit an individual application, with reasons supporting the request, to the Division at least 180 days prior to any discharge. The permittee's authorization to discharge under this general permit is terminated on the effective date of the individual permit.*

Holcim maintains an individual permit, C00000671. This permit allows for the discharge of process water from plant operations as well as the discharge from quarry dewatering. By maintaining the quarry dewatering in the existing individual permit, Holcim's authorization to discharge stormwater via draft permit COG500000 should not be terminated.

Division Response

The division issues permits for discharges from specific activities through specific outfall(s) from a facility. A facility may hold both an individual permit and a permit certification under a general permit as long as the discharges are distinct, i.e., discharged through different outfalls, and the discharges are authorized by the permit (i.e., are within the scope of the permit). Specific to the concern expressed in the comment, if the above scenario applies to the Holcim facility, the division agrees that stormwater coverage may be retained under COG500000. Thus, the scope and applicability of the stormwater provisions in the renewal permit are limited to those discharges not covered under Holcim's individual permit. Note however, that an individual permit and a certification are not *required* for the same site. Should Holcim wish to incorporate all discharges into its individual permit to reduce the number of permits for a given site, a modification to the individual permit can be requested.

No changes were made to the permit in response to this comment.

7. Permit Termination Procedures

Comment ID: COG50-3.2

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Permit and Termination: CMA also strongly supports the WQCD's discussion of permit termination. The fact sheet clarifies that many times, ponds and impoundments are left behind following mining as an enhancement to the post mine land-use, and such ponds may discharge occasionally. Many times, post mine land-uses on mined lands include some combination of agriculture, wildlife, and reclamation. The WQCD has determined that because the post mine land-uses no longer meet the definition of mine or mine dewatering, the facility can terminate CDPS coverage on these Ponds, assuming they has been approved by DRMS for bond release or meet final stabilization criteria. CMA strongly supports this approach to permit termination. DRMS regulations require mine operations to make extensive stabilization, vegetation, and hydrologic demonstrations that the post mine land uses have been achieved and the hydrologic balance protected, prior to final bond release. Thus, compliance with DRMS regulations should be sufficient to prove that environmental obligations have been met and the CDPS permit is no longer necessary.

Division Response

The division appreciates CMA's support of clear permit termination criteria and requirements specific to the sand and gravel industry.

The division was thoughtful in developing termination criteria for this permit that differentiates it from other extractive sectors, such as coal and metal mining. The termination criterion for the sand and gravel industry acknowledges that a reclaimed pond adjacent to a river or stream may be the post-mining land-use under DRMS regulation, but that any discharge from the pond following bond release will not violate water quality standards and beneficial uses of the receiving water as the discharge is caused by surface runoff to the pond. This contrasts with a post-mining land-use pond for coal and metal mining, where a reclaimed pond can continue to discharge due to contributions from mine adits, seeps, or spoil spring contributions. The division wants to be clear that CDPS permit termination is not contingent on a post-mining land-use, but instead, on a demonstration that any remaining discharge does not contain pollutants that can violate water quality standards and beneficial uses of the receiving water.

C. EFFLUENT LIMITATIONS and MONITORING REQUIREMENTS

1. Process Water Discharge Effluent Limitations

Comment ID: COG50-3.5

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Process Water Requirements: Flow Limitations and Monitoring: WQCD intends to impose a 30-day average limit on the flow that is equal to the design capacity provided by the permittee in the application. The WQCD also intends to continue requiring continuous monitoring on flow (continuation of requirements from 2008 general permit). First, attempting to put an accurate limit on process water flow at mining facilities is nearly impossible. Discharges at most mining facilities are dependent on a number of factors beyond the permittee's control such as precipitation and evaporation, groundwater inflow, and storm water runoff. In many cases, discharge water will be a combination of what the WQCD considers process water and storm water. Attempting to impose a limit on flow is only going to create compliance issues for these operations with little or no resulting environmental benefit.

Similarly, requiring continuous flow monitoring at these facilities will not provide any additional environmental protection. Flow can adequately be characterized using instantaneous measurements during sample events. Continuous flow monitoring adds cost and the burden of constant upkeep and maintenance, including downloading data, dataset corrections, freeze protection, and device calibration and will consume significant time and resources of onsite personnel. Rather, the WQCD can rely on the mine personnel's continuous presence and knowledge of the site to take accurate and representative flow measurements during discrete sample events.

Division Response

As indicated in the fact sheet, the division must include flow limitations for all outfalls consistent with Regulation 61.8(2)(i), which requires that "all pollutants limited in permits shall have limitations, standards or prohibitions expressed in terms of concentration and mass or concentration and *flow ...*" (emphasis added). Please also see response to Comment ID: COG50-3.3 regarding the flow limitation portion of the comment.

Additionally, the division has, in other CDPS permits, imposed flow limitations at outfalls where the discharge flow is influenced by precipitation. Furthermore, as pointed out by the commenter, the division does not select the flow limit, but rather asks the permittee to determine a reasonable limit based on their knowledge of the site, and to state this flow limit in the application. The division also reiterates that flow limitations are 30 day averages, and that report only conditions apply to the daily maximum flow.

The division agrees that in some circumstances, instantaneous flow measurements may be appropriate for discharges from sand and gravel facilities. However, all flow measurements must be representative of the discharge and if power is available, continuous monitoring is appropriate. The permit addresses representative sampling at Part I.E.2 (Representative sampling and Monitoring points); Part I.E.5 (Flow Measuring Device – Process water discharges); and in Appendix C (Definitions) in the definition of Grab sample. Additionally, the permit addresses availability of power in Note 2 (Flow Measurement) to Table C.1.1, which states that if power is not available, flow may be measured on an instantaneous basis, consistent with division policy WQP-20 (Baseline Monitoring Frequency, Sample Type, and Reduced Monitoring Frequency Policy for Industrial and Domestic Waste water Treatment Facilities).

Finally, as in the case of TMDL implementation for selenium, a permit limitation when dilution is granted can only be derived with a discharge flow (max monthly average). Without a discharge flow, there is no way to calculate the assimilative capacity available to the discharge, and no way to set an appropriate permit limit. When the limit is calculated based on that effluent flow, the flow limit ensures that the discharge does not cause or contribute to an exceedance of the standard. It is inappropriate to derive a permit limit based on, for example a facility effluent flow into the stream at 1 MGD, and then allow a facility to discharge at for example, 2 MGD with a limit that was derived under the assumption that the facility would only be contributing 1 MGD into the receiving water.

No changes were made to the permit in response to this comment.

Comment ID: COG50-4.11

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Process Water Requirements: Flow Limitations: WQCD intends to impose a 30-day average limit on the flow that is equal to the design capacity provided by the permittee in the application. The WQCD also intends to continue requiring continuous monitoring

on flow (continuation of requirements from 2008 general permit). First, attempting to put an accurate limit on process water flow at mining facilities is nearly impossible. Discharges at most mining facilities are dependent on a number of factors beyond the permittees control such as precipitation and evaporation, groundwater inflow, and stormwater runoff. In many cases, discharge water will be a combination of what the WQCD considers process water and stormwater. Attempting to impose a limit on flow is only going to create compliance issues for these operations with little or no resulting environmental benefit.

Division Response

Please see responses to Comment ID: COG50-3.3 and Comment ID: COG50-3.5

Comment ID: COG50-3.7

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Process Water Requirements: TDS Monitoring: The WQCD requires quarterly TDS monitoring, stating that it is based on the Salinity Regulations. However, collection of this data provides no additional environmental protection at these facilities. First, TDS does not correlate with toxicity to aquatic life and is not an appropriate indicator for aquatic life protection. Also, it is known that the primary method of treatment for dissolved solids, reverse osmosis, is extremely costly, energy intensive and produces waste byproducts that generally do more harm than good. Since operations do not have any recourse to reduce dissolved solids concentrations, periodic monitoring should not be required. Requiring monitoring only for the sake of it is not fair or responsible.

Division Response

The division is responsible for implementing all Colorado Water Quality Control Commission regulations, including Regulation 39, the Colorado River Salinity Standards. Regulation 39 outlines Colorado's participation in a multi-state basin-wide approach for salinity management as regulated by the Clean Water Act, Section 208. The Regulation is to control TDS throughout the Colorado River Basin for *all uses* of the Colorado River, and is not specifically for aquatic life protection. The division is required to gather and evaluate information from all dischargers in the Colorado River basin to maintain its requirements for the salinity control program.

Consistent with division practice for all CDPS permits, including the previous COG500000 permit, the division will continue to require that facilities discharging to the Colorado River basin monitor for TDS and may apply limitations or require additional studies, as necessary and consistent with the Regulation.

No changes were made to the permit in response to this comment.

Comment ID: COG50-3.8

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Process Water Requirements: Phosphorus Monitoring: The draft permit requires phosphorus sampling at facilities that discharge to waterbodies subject to the Phosphorus Control Regulation and may place phosphorous allocations on these facilities. However, the fact sheet explains that for nitrate, the Division chose not to impose a limit since the source of nitrogen is likely fertilizer used for reclamation. Similarly, there is no significant source of phosphorus expected at these facilities, other than the phosphorus found in fertilizers. Requiring these facilities to monitor for and potentially limit phosphorus discharge is unnecessary.

Division Response

The division is responsible for implementing all Colorado Water Quality Control Commission regulations, including the phosphorus control regulations 71, 72, 73, and 74, which apply to facilities that discharge to the following watersheds – Dillon Reservoir, Cherry Creek Reservoir, Chatfield Reservoir, and Bear Creek Reservoir. The division maintains the position, as stated in the fact sheet, that data is required to determine the impact of all facilities, including the sand and gravel sector, on phosphorus concentrations in these controlled areas. There is no exclusion in the control regulations for sectors or specific types of discharges, and therefore the division will continue to require that facilities discharging to these watersheds monitor for phosphorus, subject to the effluent limitations established in the permit. Further, phosphorus monitoring/effluent limitations is not a new requirement as the previous COG500000 permit included phosphorus as a site-specific parameter subject to potential monitoring and waste load allocations.

The information provided in the comment regarding nitrate is not entirely correct. The division made a decision to not require benchmark sampling for nitrate-nitrite for stormwater-only discharges from SIC major group 14 industrial activities; the division did not chose to waive an effluent limitation for this parameter. This distinction is important – benchmark requirements are not stormwater discharge effluent limitations, but a tool to assess control measure effectiveness. In contrast, the division has a regulatory responsibility to implement monitoring/effluent limitations for phosphorus in CDPS permits, as described above.

No changes were made to the permit in response to this comment.

Comment ID: COG50-3.6

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Process Water Requirements: Selenium and Related Definitions: Similarly, it appears that the WQCD may be creating a widespread compliance issue with selenium at these locations. According to the sampling data reported, the WQCD reports a 30% exceedance rate for selenium but the WQCD determines that intake credits do not apply to these operations. The WQCD should not require these operations to treat for a pollutant that is ambient. Essentially, the WQCD is potentially creating a widespread compliance issue for sand and gravel operations for a pollutant that is naturally occurring.

Division Response

Intake Credits

In response to this comment and several others, the Division has taken a second look at the potential applicability of intake credits under the general permit. In doing so, the Division re-reviewed the EPA Region 8 memo along with the Great Lakes System (GLS) rule (60 FR 15366) which both discuss the application of intake credits. While the Division's position has not changed, Section VI.A.4.j of the Fact Sheet has been modified to provide a more in-depth analysis of the potential applicability of intake credits in response to the comments provided.

Reporting information shows that over 50% of the facilities in the Gunnison Basin that have reported selenium effluent data have exhibited at least one instance of selenium discharge concentrations exceeding the water quality standard of 4.6 ug/l. Selenium discharge concentrations for two facilities were at times in excess of 30 ug/l.

The Division notes that facilities that cannot immediately meet the new WLAs and associated WQBELs are eligible for compliance schedules commensurate with the Divisions Compliance Schedule Policy, Permit Compliance Schedules, WPC-2, February 2010.

No changes were made to the permit in response to this comment.

Comment ID: COG50-4.3

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association

Regarding selenium and intake-credits, the Division's "conclusion" does not provide scientific data as the following statements include "**reasonably** expected to modify the character of selenium" and "**can** increase solubility of selenium present". (Fact Sheet page 24, section A-4, subsection i).

Division Response

A discussion of intake credits is included in response to Comment ID: COG50-3.6 and in Section VI.A.4.j of the Fact Sheet.

No changes were made to the permit in response to this comment.

Comment ID: COG50-4.15

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Intake Credits: It remains the opinion of CSSGA that the WQCD is creating a widespread compliance issue with selenium. According to the sampling data reported, the WQCD reports a 30% exceedance rate for selenium but the WQCD determines that intake credits do not apply to these operations. The WQCD should not require these operations to treat for a pollutant that is either naturally occurring or caused completely outside the control of this industry and the companies involved. Lastly, regarding Intake Credits and the Fact Sheet, page 24, section A-4, subsection i, I have recreated your statements and included comments with several points:

The Divisions practice has been that the following three conditions must be met in order to conclude that an intake credit is appropriate. These conditions are consistent with those documents by the EPA Region 8 in the 1992 statement, a copy of which can be found on the Division's website.

- **The industrial activity that uses the water and generates the discharge in no way modifies the intake water character for the pollutant of concern. Our process does not modify the water, if there were any data regarding modification; it is that selenium is decreased from mine intake to discharge.**
- **The point of diversion of use is the same waterbody as the point of discharge. This is the same waterbody, although under the surface.**
- **The timing of the discharge is such that the discharge does not create water quality standards exceedances that would not have occurred otherwise. Our process does not create water quality exceedances that would not have occurred otherwise, and this is our point of contention.**

Therefore, I would argue the industry does, in fact, meet the three necessary conditions regarding Intake Credits. The fact that selenium is caused by agricultural irrigation is generally known and accepted, and to solely push responsibility for this issue to the sand & gravel industry is unwarranted. This point is discussed in great detail with the letter to CDPHE from Wright Water Engineers, Inc., dated June 20, 2014. A copy is also attached with this letter.

Division Response

A discussion of intake credits is included in response to Comment ID: COG50-3.6 and in Section VI.A.4.j of the Fact Sheet.

On February 14, 2011, the USEPA Region 8 approved the *Gunnison River and Tributaries, Uncompahgre River and Tributaries, Selenium TMDL*. That TMDL contains WLA's for selenium for point (and non-point) source discharges to specific segments within these river basins. Point source discharges, including sand and gravel facilities that operate in these basins were assigned specific WLAs. The implementation of TMDL WLA's for point source discharges is via NPDES discharge permit limitations. Thus, at this time, the WLAs for selenium are being implemented in certifications for facilities discharging to applicable segments within these basins. Note that domestic wastewater treatment facilities that were listed in the TMDL already have load allocations limited in their current permits (e.g. Town of Hotchkiss, Olathe, City of Delta), and are working to reduce selenium concentrations in their effluent. Limitations that are new, or become more stringent are eligible for compliance schedules. The permit does not require or specify treatment, only that the discharge authorized in the certification meet discharge effluent limitations.

The Division disagrees with the commenter that sufficient demonstration of the three conditions in the 1992 Region 8 Memo has been made on an industry-wide basis.

- **The facility diverts water for use and in no way modifies the intake water character for the pollutant of concern (i.e., either by increasing pollutant concentration through evaporation or by adding pollutant mass from internal sources).**

Sand and gravel facilities (or sanitary sewage conveyance systems which intercept selenium rich groundwater (TMDL p.5) do not simply 'divert' water for 'use' (an example given by EPA is once-through cooling water). Sand and gravel facilities mine subsurface alluvial deposits in and around areas of Mancos shale, and do not simply divert water for a use. It is unreasonable to conclude, and no data has been provided, which clearly demonstrates that these facilities are diverting water for a use, and the character of the discharge water is 'in no way modified' from 'intake water.'

- **The point of diversion of use is the same waterbody as the point of discharge.**

As explained in Section VI.A.4.j of the Fact Sheet, there has not been a sufficient demonstration that all sand and gravel facilities covered under the permit can sufficiently demonstrate the "same body of water" requirement in accordance with the specific requirements of 40 C.F.R. §132.

- **The timing of the discharge is such that the discharge does not create water quality standards exceedances that would not have occurred otherwise.**

As explained in the Fact Sheet, the facilities have not shown that the timing of the discharge does not have a reasonable potential to contribute to an exceedance of the standard. Sand and gravel pits can be large, with large detention times, and large discharge flows. The facilities have not demonstrated that the dewatering during high flow periods is entirely discharged during the high flow month. Per the EPA Memo:

Facilities that have a reasonable potential **to contribute to** an exceedance by diverting water during high flow conditions, when background water quality could be poor, and returning the water during low flow conditions, when background water quality may be good, will not satisfy this condition.

Comment ID: COG50-4.16

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Adherence to Legislation Regarding Selenium: I have the following points in regards to procedures outlined in legislation passed last year with Senate Bill 13-073. While CDPHE has developed a Fact Sheet as a STATEMENT OF BASIS AND PURPOSE, the NEED FOR THE PROPOSED REQUIREMENTS remains unclear as outlined in 25-8- 503.5(a). The industry understands the need to abide by scientifically supported information and would like to see peer reviewed studies and data where applicable.

As I stated in my previous email, the statement regarding the disallowance of Intake Credits does not appear to follow SB 13-073 with the statement *“The Division’s conclusion is that mining and dewatering operations, and nature of the discharge, **are reasonably expected to modify the character of selenium** in the discharge and the change in the timing of the pollutant loading to the receiving water. The mining activity by its nature disturbs material that is part of the mining operation, **which can increase solubility of selenium** present in those materials (Fact Sheet page 24, section A-4, subsection i).* I would request adherence to the above referenced bill that reads: 25-8-503.5(b) PRESENT EVIDENCE SUPPORTING THE NEED FOR THE PROPOSED REQUIREMENTS, INCLUDING INFORMATION REGARDING POLLUTANT POTENTIAL AND AVAILABLE CONTROLS, INCIDENT OR ENVIRONMENTAL DAMAGE, AND PERMIT VIOLATIONS.

Division Response

The commenter merges two distinct issues: The Division’s statutory requirements under §25-8-503.5, C.R.S. (SB-13-073), discussed in Comment ID: COG50-4.8, and the Division’s analysis of the availability of intake credits, discussed in the division’s response to Comment ID: COG50-3.6 and Section VI.A.4.j of the Fact Sheet. The statement from page 24 of the Fact Sheet cited in the comment was made as part of the Division’s analysis to determine if intake credits are appropriate, and whether the “industrial activity that uses the water and generates the waste in no way modifies the intake water character of the pollutant of concern”.

The entire Fact Sheet explains the Division’s statement of basis and purpose, explaining the need for the proposed requirements, and a summary of the evidence reviewed which supports the need for the proposed changes to the General Permit. Note that different statutes and regulations refer to this document that accompanies public notice and issuance of a permit in different ways, which may result in some confusion.

In response to this comment, the Division added reference to the various terms for the fact sheet document and clarified that the content addresses those requirements, however no changes were made to the permit in response to this comment.

Comment ID: COG50-12.1

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Causes of Elevated Selenium

The causes of elevated selenium in the Grand and Gunnison Valley region are due to the presence of naturally occurring geologic conditions that are exacerbated by irrigation practices. Many references document these conditions. For example, in USGS Scientific Investigations Report 2008-5036 “Concentrations and Loads of Selenium in Selected Tributaries to the Colorado River in the Grand Valley, Western Colorado 2004-2006” (Lieb 2008), the USGS provides multiple statements regarding the causes of elevated selenium. A few examples include:

Selenium exists naturally in the Mancos Shale and in Mancos Shale-derived soils common to the Grand Valley. Studies in the Grand and Gunnison Valley regions of western Colorado (Butler, 2001; Butler and Leib, 2002) indicate that selenium mobilization occurs primarily in shallow aquifers and results from deep percolation from irrigation and seepage of irrigation water from unlined canals. Water in shallow aquifers is a diffuse nonpoint source of return flow to tributaries and the Colorado River, thus making it difficult to determine source locations of selenium loading.

The most prevalent water-quality concerns in the Grand Valley are related to elevated concentrations of salinity and selenium in the Colorado River and tributaries to the Colorado. Elevated levels of these two constituents are directly attributable to the location and amount of irrigation in the Grand Valley.

Tributary streams to the Colorado River in the Grand Valley that have the highest selenium and salinity concentrations tend to be those in subbasins that have large tracts of agricultural or residential development and extensive outcrops of, and soils derived from, the Mancos Shale. Volcanic ash layers that occur as interbeds throughout the Mancos Shale could be the source of selenium and other trace constituents in the Grand Valley (Butler and others, 1996).... As the unused irrigation water moves over the land surface or through the subsurface as ground water, it mobilizes salinity and selenium by mechanical or chemical means. Without irrigation water, the rate of mobilization and loading of salinity and selenium from the Mancos Shale would be greatly reduced because only water that originated as precipitation would be available.

Although statements like the ones above are not “new” information, they serve as an important reminder of the causes of elevated selenium and the likely solutions for selenium reduction, which are focused on improving irrigation-related practices. Unlike irrigation activities, dewatering activities by sand and gravel operations are not causing elevated selenium. Similarly, the solutions for reducing elevated selenium in the basin are primarily focused on irrigation management, both in agricultural and residential contexts. To our knowledge, there are not scientific studies that have demonstrated that removal of sand and gravel operations in these areas would result in a substantive improvement in instream selenium water quality. Requiring sand and gravel operations to treat a pollution problem caused by others (and nature) displaces the cost of remediation to entities not responsible for the pollution. Thus, WWE suggests that the concepts associated with intake credits, discharger specific variances or other similar approaches should be considered prior to requiring treatment to attain numeric effluents when the sand and gravel operations have not caused the elevated selenium in the discharge.

Division Response

The comments submitted pertain specifically to ambient selenium levels in the Grand and Gunnison Valley and the TMDL for this region. The imposition of permit limits are not based upon a demonstration (or not) of a point source discharge *causing* elevated ambient conditions. Rather, discharge permits are authorized with limitations for specific pollutants based on the reasonable potential to cause, *or contribute to* an exceedance of a standard, and/or the assignment of a WLA in an approved TMDL. In this case, there is a TMDL with WLAs for facilities, including domestic facilities and sand and gravel operations, within these segments. Further, effluent data indicates that discharges from sand and gravel facilities on these segments have the potential to cause or contribute to an exceedance of the selenium standard assigned to the receiving waters by the Water Quality Control Commission. Thus, limitations are required for selenium, including the TMDL WL allocations that were approved by the USEPA in February 2011.

As discussed in Section VI.A.4.j of the Fact Sheet, intake credits do not apply to WLA's, and are not applicable for WQBELs for selenium at this time. Note that the General Permit will implement the TMDL through the permit certification process, and adjustments to the WLA assigned to individual permittees must be made through that process. The permit and associated certification to discharge will not include a provision or requirement to actively treat the effluent. The permit limits function to control effluent quality. How those limits are attained is managed by the permittee. The compliance schedules will require the permittees to identify sources of selenium and strategies such that compliance with the effluent limits may be attained. Once better information becomes available regarding discharge concentrations and flows, some permittees may be able to comply with the selenium limits without any operational changes or control strategies. Permittees that find that they do need to make some change in order to be able to comply with selenium limits can consider a wide range of options, including water management options, changes to mining practices, changes to dewatering practices, and treatment.

At this time, specific changes are not being made in response to this comment. In general, please see response to Comment ID: COG50-3.6, Intake Credits, above, and Section VI.A.4.j of the Fact Sheet.

Comment ID: COG50-12.2

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Site-specific Standards and Associated Uncertainty Regarding Attainability of Standards under TMDL

Selenium impairment listings are one of the most common causes of stream impairments in Colorado, with selenium generally recognized as a statewide issue where selenium-bearing geologic formations are located. The Water Quality Control Commission has approved site specific chronic and acute standards for selenium for streams where natural or irreversible human-induced conditions cause elevated selenium instream. Such site-specific standards, based on appropriate scientific documentation, have enabled discharge permittees to obtain more feasibly attainable numeric effluent limits that differ from 4.6 µg/L (chronic) and 18.4 µg/L (acute). Although WWE understands that the approval of the Gunnison TMDL creates constraints for the Division's Permits Unit regarding application of alternative permit limits, uncertainty remains regarding the appropriate underlying standard that will be attainable for the stream segments included in the TMDL, as well as for other selenium-impaired streams without TMDLs. Stated differently, the Gunnison TMDL's goal is attainment of stream standards, but even if contributions of irrigated agriculture are controlled, the presence of naturally occurring Mancos shale may still limit attainment of a chronic 4.6 µg/L selenium stream standard. Prior to implementing costly treatment for selenium removal (or potentially shutting down sand and gravel operations), it is important to have more information on areas where site-specific standards are warranted. In the case of the Gunnison TMDL, it is likely that natural contributions of selenium may limit the standard that is ultimately attainable simply due to the ongoing presence of a selenium source. As noted previously, Figure 1 illustrates the significant presence of Mancos shale in the Gunnison and Grand Valley region. This issue is relevant when costs of treatment are considered, as discussed later in this comment letter.

Division Response

The Division appreciates the commenters' input about the source of selenium in the Gunnison and Grand Valley region, but reiterates that the Division does not have the authority to change the underlying selenium standard in the stream segments at issue. The Water Quality Control Commission (WQCC) is the governing body that sets and revises stream standards. The underlying stream standard for these segments has not changed since the TMDL approval, and as such, the TMDL and associated WLAs remains valid. No changes to the permit have been made in response to this comment.

Comment ID: COG50-12.3

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Concerns with Assumptions Regarding Sand and Gravel Discharges in Gunnison TMDL

From discussions with Division staff, we understand that the permit COG500000 must comply with the Gunnison TMDL. Although WWE was not involved with the Gunnison TMDL process, we understand that the CSSGA and the Selenium Tasks Force raised a number of concerns during the development of the TMDL. Although the Division provided responses to comments in the TMDL, the CSSGA continues to disagree with some of the decisions made in the TMDL. There does not appear to be an adaptive management process or provision for adjustment of the TMDL as the science improves in the watershed (or as more information becomes available regarding whether a standard of 4.6 µg/L is attainable, even once agricultural irrigation sources are managed). Because of the significant implications to sand and gravel permittees, we recommend that where additional data indicate that assumptions related to sand and gravel operations contribution are incorrect in the TMDL, that the permit should be able to accommodate different assumptions from those in the TMDL, if supported by appropriate data analysis.

For purposes of this comment letter and the meeting planned by the Division in July 2014, we would like to repeat a few pertinent excerpts provided in a comment letter from the Gunnison and Grand Valley Selenium Task Force (January 15, 2010) on the Gunnison River TMDL. These statements include:

1.) The Gunnison TMDL has far reaching economic and environmental implications for local and regional communities. It is the first TMDL in western Colorado to be implemented in federally-designated critical habitat under the Endangered Species Act. With this in mind, the STF believes the TMDL report could benefit from additional data collection, analyses, and stakeholder collaboration, especially with point source dischargers;

2.) *The TMDL erroneously states that sand and gravel extraction “accelerates the mobilization and transport of selenium...” (page 4, paragraph 1). It is the opinion of the STF that sand and gravel operations do not accelerate the mobilization, add, or load selenium to the river system. They intercept selenium laden groundwater in their operations and discharge it back to the river system;*

3.) *Much of the burden of compliance within the TMDL lies with sand and gravel operators and municipal wastewater service providers. The STF does not believe this is a reasonable approach to dealing with needed selenium load reductions.*

Similar and additional concerns were expressed directly by the CSSGA in a separate letter (January 15, 2010) to the Division (Attachment 1). One such concern is that the assumptions of the TMDL likely overestimate the loading contributed by sand and gravel operations due to the intermittent nature of dewatering discharges to the stream. Unlike municipal wastewater treatment plants or other industrial operations, sand and gravel discharges vary from year to year, depending on various production related issues and hydrologic conditions. In an example provided for the Delta Paving Pit in the CSSGA comment letter on the TMDL, the number of discharge days per year over a six year period included 0, 30, 125, 135, 136, and 157 days at one pit. Additionally, the flow rates at each pit vary substantially—DMR data for some pits show daily averages of 0.1 million gallons per day (MGD) (or even no discharge), with maximum flow rates of 4 MGD or more. This variation in flow rate and discharge days is a critically important consideration in loading assumptions applied in the Gunnison TMDL. If numeric limits for selenium are ultimately adopted in COG500000, recognition of this variability is important. These variable flow rates also complicate design and operation of potential treatment alternatives.

Division Response

The Division appreciates the commenters’ input, but has not made changes to the General Permit in response to this comment. As previously stated, any changes to underlying assumptions, adaptive management process or submission of additional data in the TMDL must be made as part of the TMDL process. The Division does not have the ability to change the underlying selenium standard in the stream segments at issue.

The commenter does raise important considerations about loading assumptions based on variable flow rates from sand and gravel facilities. As discussed in the fact sheet and the accompanying meeting held with the TMDL sand and gravel facilities in July 2014, the Division outlined the flexibility in setting permit limitations for these facilities based on monthly flows (both ambient and effluent facility flow). As such, some facilities may be able to attain compliance with the effluent limits by managing effluent flows. For example by discharging when flows in the rivers are largest (spring), and reducing effluent flows when ambient flows have ebbed. See also Comment ID: COG50-4.4

Comment ID: COG50-12.4

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Intake Credits

As stated in the Fact Sheet, the Division’s practice has been that the following three conditions must be met in order to conclude that an intake credit is appropriate:

1. The industrial activity that uses the water and generates the discharge in no way modifies the intake water character for the pollutant of concern.
2. The point of diversion of use is the same water body as the point of discharge.
3. The timing of the discharge is such that the discharge does not create water quality standards exceedances that would not have occurred otherwise.

The Division provides explanation in the Fact Sheet regarding the reasons that it believes the Sand and Gravel industry does not meet these conditions, whereas the industry continues to believe that these conditions are met. Additional comment on these three conditions in the context of sand and gravel dewatering operations includes:

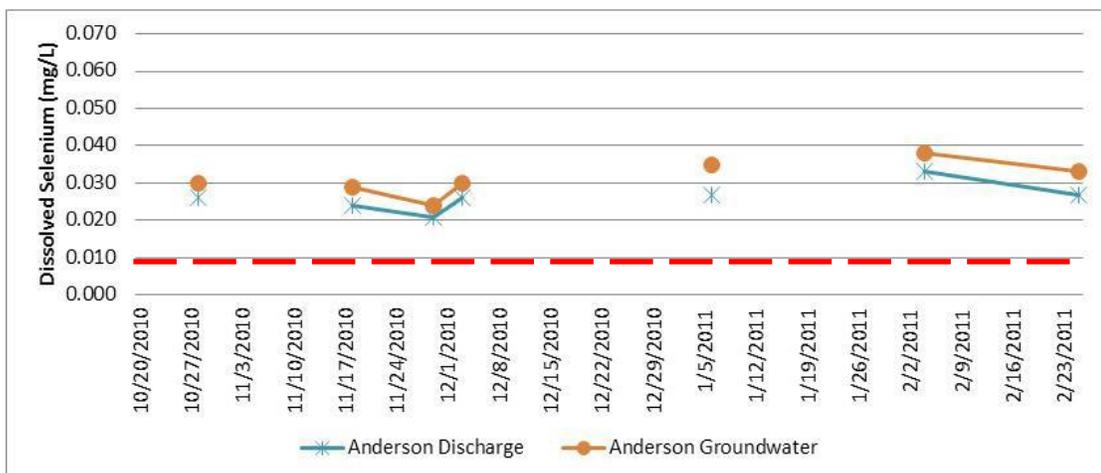
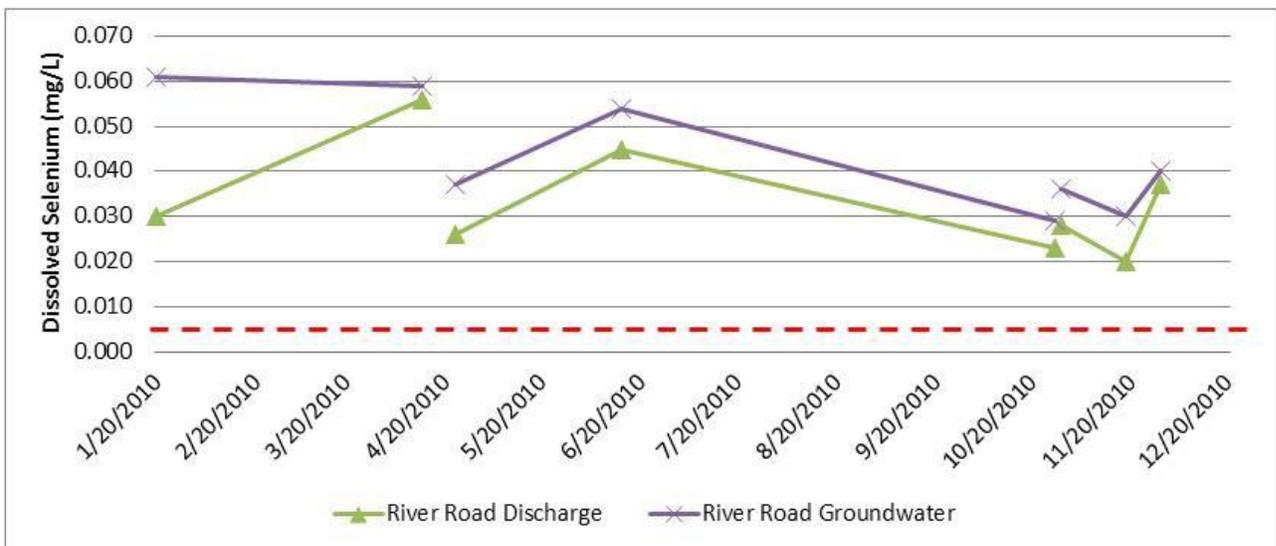
1. For dewatering operations, data collected by the industry on several representative pits demonstrates that movement of alluvial groundwater through the pit does not increase selenium concentrations discharged from the pit. Example data from various pits show that the concentration discharged from the pit is often lower than the concentration of the alluvial groundwater flowing into the pit, as shown in Figures 2a-b.
2. Alluvial groundwater and surface stream flows are closely related and function as a single system. At times, surface waters move into the alluvial groundwater and at other times alluvial groundwater discharges to the stream. This relationship is

recognized both in water rights administration, as well as throughout Water Quality Control Commission regulations, such as in cases where water supply uses are assigned to streams with hydraulically connected alluvial wells (even when no surface water diversion for domestic use is present on the stream).

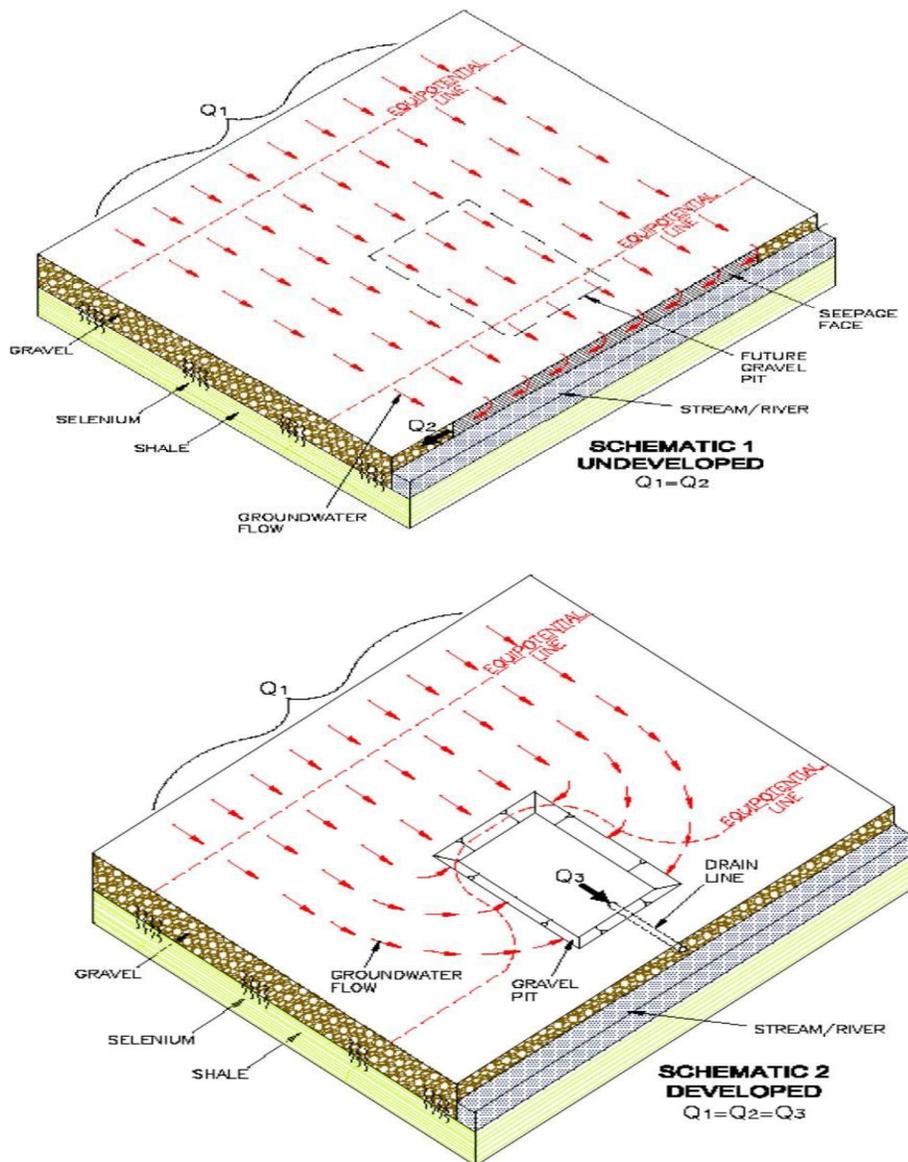
3. When viewed over a reasonable hydrologic time period (e.g., perhaps a year or other time period, depending on the site), the selenium load delivered by dewatering operations is expected to be comparable to the load delivered naturally through diffuse alluvial discharges to the stream. As illustrated in Figures 3a-b, dewatering operations change the location of discharge of alluvial groundwater to the stream, but not the amount of discharge. Instream monitoring data indicating that changes in the delivery method of the alluvial groundwater have caused increases in selenium exceedances have not been documented by the industry and the industry is not aware of this information being documented by the Division. Although it is possible that short-term variations in loading (rate of delivery) could occur, the net change in selenium loading over time is not expected to be significant based on hydrogeologic principles. During initial dewatering, the rate of discharge may be temporarily higher than the natural alluvial rate for a limited time period; however, after this initial time period, it is expected that the alluvial discharge rate may be lower than the natural discharge rate. Even though there may be some short-term variation, the “net” loading is not expected to be substantively different than what would have occurred in the absence of the gravel pit operations.

If the Division is open to reconsidering its position on “intake credits,” WWE believes that it would be feasible to further develop examples based on site-specific data further illustrating these concepts. An additional consideration based on the three principles above is that if the concentration of selenium in the alluvial groundwater is decreased by some percentage in the open gravel pit, then it may be that short-term changes in volume-related discharges may be off-set by these reductions in concentrations.

Figure 2a-b. Example Data Comparing Selenium Concentrations in Alluvial Groundwater Inflows to Pits vs. Piped Outfalls from Gravel Pits



Figures 3a-b. Conceptual Alluvial Groundwater Flows Before and During Gravel Pit Dewatering



Division Response

The division considered this comment, but did not make any changes to the permit. In general, please see response to Comment ID: COG50-3.6, Intake Credits, above, and Section VI.A.4.j of the Fact Sheet.

Comment ID: COG50-12.5

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Costs of Treatment

Costs of selenium removal are substantial and do not reliably remove selenium below 5 µg/L (CH2M HILL 2010). Table 1 below provides a brief overview of full-scale technologies characterized in a technology review focused on selenium removal prepared by CH2M HILL in 2010 titled "Review of Available Technologies for the Removal of Selenium from Water." (This report can be accessed at <http://www.namc.org/docs/00062756.PDF>.) These costs are presented to simply illustrate the capital and annual operation and maintenance costs that an operator could incur to attain dissolved selenium concentrations approaching 5 µg/L. Some of the technologies identified in the CH2M HILL report would not be viable due to water rights (e.g., evaporation based approaches) and space constraints (e.g., certain bioreactor approaches). Others are cost prohibitive and have other environmental tradeoffs such as

the disposal of treatment waste streams (e.g., reverse osmosis). Based on initial review of the CH2M HILL report for technologies available as of 2010, a ballpark range associated with the capital costs for selenium removal is in the range of \$11 – 40 million per 1 MGD of treatment plus ongoing operational and maintenance costs. Thus, there are real concerns regarding the feasibility of implementation of selenium treatment to levels that would meet 4.6 µg/L numeric effluent limits.

An additional consideration related to treatment requirements for sand and gravel operations is that the capital investment required is particularly costly relative to the operational lifespan of a gravel pit. Unlike industrial plants or municipal wastewater plants, sand and gravel operations have a shorter operational life, moving from location to location after mining operations are completed. Additionally, the capital investment required by one company operating multiple pits to implement multiple treatment facilities is not realistic economically. For example, one company could be required to install multiple relatively short-term, multi-million dollar treatment facilities to meet numeric effluent limits for dewatering operations.

Another consideration is that because the Division is proposing both concentration-based and load-based limits, a discharger could potentially be required to implement costly treatment in situations where treatment will result in insignificant improvement in instream water quality (e.g., is a \$17 million investment appropriate for a 0.1 µg/L improvement in stream water quality?). Although application of assimilative capacity concepts may help to dampen this effect for certain locations; multiple dischargers will likely be affected by discharges to segments where there is no assimilative capacity available. In such cases, dischargers could be held to treatment requirements where multi-million dollar investments are required, yet the instream water quality improves by a negligible (e.g., de minimus, statistically insignificant) amount and the stream standard is still exceeded.

Table 1. Highlights of Various Selenium Removal Technologies (Information Source: CH2M HILL 2010)

Treatment Type	Design Flow (MGD)	Capita Cost (Million \$)	Annual O & M Costs (Million \$)	Comments
ABMet® Bioreactor	1	30	3	Flow equalization/diversion required as part of treatment train. Large footprint required. Wasted biomass residuals contain elemental Se which may be hazardous. Biological residuals need to be thickened and dewatered for landfill disposal.
Reverse Osmosis	1	40	3	Flow equalization/diversion required as part of treatment train. Requirements for pretreatment and chemical addition. Frequent membrane monitoring and maintenance. Requires treatment and disposal of brine. Permeate stream will require treatment prior to discharge to receiving waters to meet toxicity test. Operational issues with very low and high temperatures.
Ferrihydrite Absorption or Iron Co-Precipitation (Two-step absorption process)	1	11	4	Flow equalization/diversion required as part of treatment train. Produces relatively large quantities of sludge that may need to be disposed of as a hazardous waste.
Ferrous Hydroxide (Two-step redox and physical absorption process)	0.432 (300 gpm)	15	1.5-2	Similar issues as ferrihydrite absorption or iron co-precipitation.
Constructed Wetlands	1	17	0.15	Flow equalization/diversion required as part of treatment train. Large flat footprint required. Performance is affected by temperature. Se removal is greater in the summer months. Monitoring may be required to assess ecological risk from bioaccumulation of Se. Potential groundwater contamination.

Passive Biochemical Reactor	0.03	0.2	\$0.95 per 1000 gal	Large foot print required. Organic substrate degrades over time and may need replacement.
-----------------------------	------	-----	---------------------	---

Table Footnotes: Table excludes pilot-scale examples and evaporation-based treatment approaches. Costs estimated summarized by CH2MHill (2010) are defined by the American Association of Cost Engineers International as Class 5 with an accuracy of +100% and - 50%. Estimates are based solely on the information available at the time of the report. Actual final costs will depend on the actual labor and material costs, competitive market conditions, location and site conditions, final project scope, implementation schedule, and other variable factors. As a result, actual cost will vary from these estimates. Costs considered direct and indirect costs. Direct costs included equipment, delivery, taxes, and installation costs. Indirect costs included engineering, construction, contingency for undefined items, escalation, permitting, startup and commissioning costs.

In addition to the research in the CH2M Hill (2010) review, the Selenium Task Force sponsored a pilot project conducted by Mesa State College (now Colorado Mesa University) to evaluate performance of a bioreactor treatment approach. Although the pilot scale monitoring showed reductions in selenium, the technology is not viable for the sand and gravel industry due to the space requirements associated with a full-scale system for discharge rates associated with dewatering activities. Preliminary test results indicated that a residence time of 12 hours would be required to effectively remove selenium to levels below the proposed TMDL. Based on the flow rates used for the bench scale test, it is impractical to scale up the bioreactor to treat discharges from gravel pits. For example, at the Anderson Pit the design capacity for discharge as permitted by the CDPHE would require a bioreactor 10 feet by 10 feet and 1.7 miles long. This treatment option is prohibitively expensive, and the generated waste would have to be disposed of in a landfill. Even with this treatment, the United Companies estimates that the expected improvement in instream water quality would be on the order of less 0.1 µg/L (from January 15, 2010 letter from Oldcastle to Mr. Steve Gunderson, Water Quality Control Division Regarding Oldcastle Group SW, Inc. Objection to the Proposed TMDL for Selenium).

Division Response

No changes have been made to the permit in response to this comment. In general, see the discussion in the fact sheet that addresses cost benefit analyses for development of permit terms and conditions, and State law requirements to consider cost-benefit analysis (Comment ID: COG50-4.8), above.

Implementation of the TMDL does not mandate that a sand and gravel operator install selenium treatment technology. Under the TMDL, sand and gravel operators along segments of the Gunnison River and its tributaries may not necessarily need to perform treatment for selenium. Many stretches of these water bodies have some assimilative capacity for selenium during certain points of the year. Sand and gravel operators may be able to discharge water without treatment if it is discharged seasonally when the stream has some assimilative capacity available. This flexibility in the TMDL implementation has been discussed with dischargers and will be included in the permit certifications for those facilities.

The summary of available selenium treatment technologies is helpful, but may not be up-to-date. Requirements to treat selenium below 5 ug/L are being implemented at least three different facilities are for substantially lower costs than those included in the CH2MHill report cited by the commenter. For example, in NPDES Permit No. R2-2014-0010 the Lehigh Permanente limestone quarry and cement manufacturing facility is being required to treat for selenium to at a permit limit of 4.1 ug/L. This facility discharges water to Permanente Creek, which is on the 303(d) list for selenium. Untreated selenium discharges associated with mine dewatering from the facility contained selenium at levels up to 75 ug/L. The San Francisco Bay Water Quality Control Board has issued a three year time schedule order to come in to compliance with the selenium effluent limits, but will require compliance with the 4.1 ug/L limit in February, 2017.

Again, the Division does not necessarily believe that selenium treatment will be required to comply with the TMDL. However, the Division believes that there are other treatment technologies beyond those submitted by the commenter that should be considered in determining the feasibility and potential water quality improvement that could be achieved through selenium treatment.

Comment ID: COG50-12.6

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Discharger Specific Variances

In 2012, the Commission adopted provisions for discharger-specific variances into Regulation 31. WWE believes that the conditions described above could potentially qualify sand and gravel dewatering operations to be considered by the Division for discharger-specific variances. WWE recommends that provisions for discharger specific variances be recognized in the final permit language. Further discussion of conditions where discharger-specific variances would be allowed in the context of sand and gravel dewatering operations would be an important topic of discussion at the July 2014 meeting being organized by the Division.

Division Response

The renewal permit provides for flexibility for applying, or not applying, water quality standards consistent with the Water Quality Control Commission (WQCC) direction, including discharger specific variances. Discharger specific variance and site-specific standards are WQCC actions.

No changes were made to the permit as a result of this comment.

Comment ID: COG50-12.7

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Pollutant Trading

In keeping with the load-based concepts in the TMDL, one potential approach to increase flexibility for permitted dischargers would be to allow pollutant load trading among multiple permits under the control of a single operator, as well as among multiple operators. A current constraint of this strategy is the Division's currently proposed draft permit language that requires both concentration and load based limits. If dischargers will be held to a numeric limit of 4.6 µg/L, then pollutant trading will not provide substantial relief to operators. However, additional language outlining how pollutant trading could be incorporated into the permit would be helpful, if flexibility regarding selenium concentrations in discharges is allowed. This topic could be discussed further during the July meeting.

Division Response

The Division agrees that one potential approach to increase flexibility for permitted discharges would be pollutant trading. The Division has extensive guidance on how trades can be incorporated into permits in the Colorado Pollutant Trading Policy (WQCD, October 2004). Specific language on how to set pollutant trading is not needed in the general permit as trading must be done on a facility specific basis and a specific trade has not been proposed at this time.

No changes have been made to the permit in response to this comment

Comment ID: COG50-12.8

Author Name: Jane Clary and Peter Foster

Organization: Wright Water Engineers, Inc. (at the request of the Colorado Stone, Sand and Gravel Association)

Conclusion and Suggested Alternative Approach

Based on the factors considered above, WWE recommends that additional consideration be given to an alternative approach to numeric effluent limits for selenium for process water discharges from sand and gravel operations. Based on available information, WWE's opinion is that the current approach to the general permit will likely not have a significant positive impact on instream water quality for selenium, but will have a significant negative impact on the economic viability of the sand and gravel industry in areas with Mancos shale.

Alternatives to numeric effluent limits for selenium in the proposed permit could include the following:

1. Delay implementation of numeric effluent limits in the general permit in the Gunnison TMDL affected segments to allow additional data collection and hydrogeologic calculations that quantify representative ranges of conditions showing: 1) the selenium load contribution delivered in the absence of gravel permits and 2) the selenium contribution delivered during typical sand and gravel operations. If the conditions of such a study were mutually agreed upon by the Division and affected permittees, then a scientifically based resolution to differing viewpoints could be implemented in the next permit cycle.

2. If option 1 is not viable on an industry-wide basis in the Gunnison TMDL basin, then the discharge permit could include specific provisions for discharger specific variances or require the discharger to demonstrate on a site-specific basis that their operations are not significantly adversely influencing instream water quality, considering factors such as expected natural loading, upstream selenium concentrations, and other factors. For example, influent groundwater and pit dewatering samples at the point of discharge could be collected in conjunction with hydrologic monitoring and hydrogeologic characterization to develop an estimate of loading with and without gravel operations. This information could be used to help demonstrate that loading beyond the natural (existing) rate is not occurring as a result of their operations, thereby enabling a variance (waiver) for additional treatment requirements.

Division Response

The Division has considered the two alternative approaches to numeric effluent limits for selenium. Further delay of the implementation of numeric effluent limits (including WLAs) for facilities discharging to TMDL is not warranted. The TMDL was first contemplated beginning in 2006, and was approved in 2011. The TMDL is approved, and must be implemented. Note that compliance schedules for facilities not able to meet the WLAs and associated WQBELs for selenium will be included in the permit certifications.

Discharger specific variances and site-specific standards are WQCC actions. Please see Comment ID: COG50-12.6.

No changes were made to the permit.

Comment ID: COG50-4.4

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association

We understand that Fact Sheet page 25, section B-4, subsection a, acknowledges that TMDL's are based on current design flow of the facility and not historic flows. How are the TMDL's calculated regarding concentration based limitations that incorporate dilution on a monthly basis?

Division Response

First, to clarify how the division intends to implement mass-based WLAs as provided in the TMDL, the fact sheet was modified to indicate that for existing sand and gravel dischargers, implementation of the mass-based WLA for specific dischargers may be based on, or adjusted from, the design flow of the facility at the time of the TMDL, and/or the presence or absence of other sand and gravel dischargers on the segment since the development of the TMDL.

With respect to monthly concentration-based limitations, the division intends to calculate these limitations using 1) monthly in-stream upstream background data as provided in the TMDL, 2) the monthly low flows listed in the TMDL to determine the monthly assimilative capacity of the receiving streams for selenium (where available), and 3) the combined effluent flow from the existing facilities identified in the TMDL that discharge to a stream segment with a WLA. The Division's standard analysis for metals such as selenium is to use a mass-balance equation that accounts for the 1) upstream concentration of a pollutant at the existing quality, 2) critical low flow (minimal dilution), 3) effluent flow (in this specific case, the effluent flow from all existing facilities identified in the TMDL that discharge to a stream segment with a WLA), and 4) the water quality standard. The mass-balance equation is expressed as:

$$M_2 = \frac{M_3Q_3 - M_1Q_1}{Q_2}$$

Where,

Q_1 = Upstream low flow as calculated in the TMDL

Q_2 = Combined facility design capacity (30 day limit) as specified in the application or application supplement by the permittee for a given segment

Q_3 = Downstream flow ($Q_1 + Q_2$)

M_1 = In-stream background pollutant concentrations at the existing quality as calculated in the TMDL

M_2 = Calculated concentration based limit (Water Quality Based Effluent Limit, or WQBEL)

M_3 = Water Quality Standard (4.6 µg/l chronic; 18.4 µg/l acute)

Monthly concentration based selenium limits will be applied where there is reasonable potential for each facility assigned a WLA. To conduct a quantitative RP analysis, a minimum of 10 effluent data points from the previous 5 years, should be used. The equations set out in the guidance for normal and lognormal distribution, where applicable, are used to calculate the maximum estimated pollutant concentration (MEPC). For data sets with non-detect values, and where at least 30% of the data set was greater than the detection level, MDLWIN software is used consistent with Division guidance to generate the mean and standard deviation, which are then used to establish the multipliers used to calculate the MEPC. If the MDLWIN program cannot be used the Division's guidance prescribes the use of best professional judgment.

For some parameters, recent effluent data or an appropriate number of data points may not be available, or collected data may be in the wrong form (dissolved vs total) and therefore may not be available for use in conducting an RP analysis. Thus, consistent with Division procedures, monitoring will be required to collect samples to support a RP analysis and subsequent decisions for a numeric limit. A compliance schedule may be added to the permit to require the request of an RP analysis once the appropriate data have been collected.

For other parameters, effluent data may be available to conduct a quantitative analysis, and therefore an RP analysis will be conducted to determine if there is RP for the effluent discharge to cause or contribute to exceedances of ambient water quality standards. The guidance specifies that if the MEPC exceeds the maximum allowable pollutant concentration (MAPC), limits must be established and where the MEPC is greater than half the MAPC (but less than the MAPC), monitoring must be established. Where there is no RP, no concentration based effluent limit is included. However, the division has prescribed ongoing monitoring to inform future RP analyses and TMDL implementation.

The Division will include site-specific information regarding calculation of the concentration-based limitations, reasonable potential analysis, and mass-based waste load allocations in certifications for facilities subject to the selenium TMDL for the Gunnison basin.

No changes were made to the permit in response to this comment.

Comment ID: COG50-10.1

Author Name: Zane Luttrell

Organization: Rocky Mountain Aggregate & Construction

Rocky Mountain Aggregate & Construction completely supports the CSSGA's comments in the letter below. Our aggregate reserves are located in the Gunnison, Uncompaghre and Colorado River drainages. Most of the available construction material in these drainages are located near the river. The selenium discharge requirements are not practical and are unattainable for existing and new operations. Please consider the comments below and feel free to contact me with any questions or ideas.

Division Response

No changes have been made to the permit in response to this comment.

Please see responses to the Colorado Stone Sand and Gravel Association's comments (Comment ID: COG50-4.1, 4.2, 4.3, etc) as referenced in the comment.

2. Stormwater Discharge Effluent Limitations

a. Practice Based Effluent Limitations

Comment ID: COG50-8.3

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Part I.C.2.a.iv.c of the draft permit states: *Permittees must implement control measures (secondary containment or equivalent protection) for bulk storage of petroleum products and any other chemicals located at the facility to contain all spills and prevent spilled material from entering state waters.*

Holcim suggests that the draft permit reference those requirements found in the Federal SPCC regulations instead of making the general statement for "bulk storage of petroleum products and any other chemicals".

Division Response

The intent of this permit provision is to ensure that permittees recognize that adequate secondary containment (or equivalent) is required for any chemicals stored at the facility. The division clarified the referenced sentence in Part I.C.2.a.iv.c) of the permit as provided below.

Permittees must implement control measures (secondary containment or equivalent protection) for any chemical (e.g., petroleum products, pesticides, magnesium chloride, treatment chemicals, etc.) located at the facility, to contain all spills and prevent spilled material from entering state waters.

Comment ID: COG50-5.5

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

The requirement to stabilize exposed areas is not practical for many surface mining activities, particularly sand and gravel facilities: mining, by definition, includes creating exposed areas. The word contain in the draft permit indicates that all water must be contained and not allowed to discharge off-site.

Suggested Permit Modification:

The permittee must stabilize exposed areas and control runoff using structural and/or non-structural measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants, unless infeasible.

Alternatively, we request the Division include guidance (in the permit or fact sheet) regarding best practices for stabilizing exposed areas at mining sites. Perhaps active mine areas, haul roads, and other intrinsic features of a mine could be excluded from the permit's definition of *exposed areas*.

Division Response

The Division appreciates the alternate permit language suggested by the commenter. It is important to clarify that the stormwater provisions contained in the permit do not apply to areas of the facility that drain to the mine pit, as any water (including groundwater and stormwater) discharged from the pit (mine dewatering) is considered process water (please see response to Comment ID: COG50-2.2, and response to Comment ID: COG50-5.4). Therefore, stormwater discharges from exposed areas that drain to the mine pit are not subject to the stormwater provisions in the permit.

However, the stormwater provisions do apply to areas of the facility that do not drain to the mine pit, which can include haul roads, lay down and storage areas, and other disturbed areas at the mining facility. Therefore, the requirement to stabilize exposed areas does apply to these areas.

The division agrees that the term 'contain' could be interpreted to mean that the permittee must retain stormwater at the facility. Therefore, the division changed the word 'contain' to 'manage' in the permit (Part I.C.2.a.v), to be consistent with language used in the Practice-based Effluent Limitation (PBEL) at Part I.C.2.a.vi (Management of Runoff). The division does not agree that adding 'unless infeasible' at the end of the requirement is appropriate, as it is the division's expectation that the permittee manage erosion and sediment transport for those areas of the facility that do not drain to the mine pit.

Many resources are available to guide the permittee in selecting appropriate control measures to meet this PBEL, for example, those provided in the division's guidance for the construction industry (www.coloradewaterpermits.com – see Stormwater management plan guidance-construction); EPA's website for the construction industry (National Menu of BMPs) and Industrial Stormwater Fact Sheet Series (see Sector J: Mineral Mining and Processing Facilities); and BLM's Gold Book.

Comment ID: COG50-8.4

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Part I.C.2.a.ix of the draft permit states: *The permittee must eliminate non-stormwater discharges not authorized by this permit, or conducted in accordance with a Division Low Risk Guidance document.*

The statement should be changed to reflect other discharge permits that may contain allowable discharges of non-stormwater (i.e. quarry dewatering). Holcim suggests that the statement be changed to "The permittee must eliminate non-stormwater discharges not authorized by this permit, another permit issued by the Division, or conducted in accordance with a Division Low Risk Guidance document".

Division Response

The Division agrees with the suggested modification and changed Part I.C.2.a.ix of the permit accordingly. The permit language now reads "The permittee must eliminate non-stormwater discharges not authorized by this or any other CDPS permit, or conducted in accordance with a Division Low Risk Guidance document".

D. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

1. WET Test Requirements

Comment ID: COG50-3.9

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Process Water Requirements: WET Testing: Although the fact sheet states that the Division anticipates that the majority of discharges from sand and gravel facilities will not require WET testing, but that requirements may be imposed on a case-by-case basis. First, CMA appreciates that the WQCD's recognition that stormwater runoff generally does not contain any toxic pollutants. The WQCD goes on to reserve the right to impose WET testing requirements. Instead, WET testing should not be listed in the permit requirements, but can be categorized within the "other pollutants of concern". Second, remember that the majority of these facilities are not discharging continuously and many only discharge in response to large runoff events. In these cases, the conditions that chronic WET tests are based on do not exist in the environment, and instead only acute limits should be applied. Therefore, in the few cases that may warrant WET testing, the acute and chronic testing conditions and their applicability to the operation should be considered.

Division Response

For clarity, the fact sheet does not state that stormwater runoff generally does not contain any toxic pollutants. The fact sheet acknowledges that while the majority of discharges from sand and gravel facilities will likely not require WET testing, the permit contains provisions to add WET monitoring requirements for those discharges that may exhibit whole effluent toxicity, based on the potential pollutant concentrations in the discharge (e.g., chemical additive use, or treatment or production processes that add pollutants to the discharge), and that the division will address those discharges on a case-by-case basis. This is consistent with the terms and conditions in the current general permit. Due to the complexity of WET limitations and requirements as compared to other pollutants of concern (such as metals), the division will continue to list WET in the permit requirements under the "Site Specific Requirements" for process water, which is also consistent with the current general permit. This is also consistent with the convention of other general permits.

The permit allows the division to apply acute and/or chronic testing, and the division applies these requirements consistent with the Division WET policy (Implementation of the Narrative Standard for Toxicity in Discharge Permits Using Whole Effluent Toxicity (Sept 30, 2010)). The division will consider the definition of intermittent discharge provided in this policy as part of the decision-making process for requiring acute vs. chronic testing. The WET policy states that a discharge is intermittent if one of the following conditions applies: 1) the maximum discharge frequency is less than 3 consecutive days (72 hours), and less than 3 days per 7 day period, and less than 10 days total per month; or 2) the maximum discharge frequency is less than 5 consecutive days (120 hours) and less than 5 total days per month; or 3) it can be shown that discharge frequency and duration is tied solely to precipitation events, where the discharge starts and stops shortly after the precipitation event starts/stops.

No changes were made to the permit in response to this comment.

F. REPORTING AND RECORDKEEPING

1. Routine Reporting of data – DMRs

Comment ID: COG50-0.3

Division Initiated Change to the Permit

Organization: Water Quality Control Division

- As directed by the Division, the permittee may be required to report the data gathered in compliance with Parts I.C on a **monthly** basis for those facilities subject to a WLA and associated concentration based WQBEL in the permit certification; reporting shall be on a **quarterly** basis for all other facilities. Reporting of all data shall comply with the requirements of Part I.E. (General Monitoring and Sampling Requirements) and Part I.F. (Reporting and Recordkeeping) of this permit.
- For consistency across CDPS permits, the division changed Part I.F.1 of the permit to include requirements regarding EPA's NetDMR submittal, and associated time frames, as follows:

Starting on December 21, 2016, the permittee must electronically report DMRs by using the EPA's Net-DMR service unless a waiver is granted in compliance with 40 CFR 127.

If submitted on paper, the data must be reported on Division approved discharge monitoring report (DMR) forms (EPA form 3320-1). The permittee must submit these forms by mail. The original signed copy of each discharge monitoring report (DMR) shall be submitted to the Division at the following address:

Colorado Department of Public Health and Environment
Water Quality Control Division
WQCD-P-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

For both electronic and paper reporting the data must be received no later than the 28th day of the following month (for example, the DMR for the first calendar quarter must be received by the Division by April 28th). If no discharge occurs during the reporting period, "No Discharge" shall be reported.

The Discharge Monitoring Report paper and electronic forms shall be filled out accurately and completely in accordance with requirements of this permit and the instructions on the forms. They shall be signed by an authorized person as identified in Part I.F.4.

H. GENERAL MONITORING REQUIREMENTS - Stormwater Only

Comment ID: COG50-5.6

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

No exceptions or discussion are provided for facilities undergoing reclamation. In the previous COR340000 permit (Part I.B.5.f), several exceptions to inspection frequency were provided. We believe similar exceptions should be maintained for sites (and portions of sites) that have been seeded and are simply awaiting re-growth of vegetation (similar to reduced inspection frequency in the Construction Stormwater Discharge Permit), due to the fact that vegetative growth can take several years and frequent inspections will likely document "same conditions as last inspection". We recommend language similar to the COR030000 permit be added to this draft, such as:

Monitoring Exceptions at Facilities and Portions of Facilities Undergoing Reclamation

The requirement that permittees conduct and document visual assessments or water quality standards monitoring of stormwater discharges does not apply at facilities or portions of facilities that are undergoing reclamation but final stabilization has not been achieved due to a vegetative cover that has not become established. This exception *only* applies if:

- i. all mining / processing activities that will result in surface ground disturbance in at the facility of portion of the facility are permanently completed or have ceased temporarily;
- ii. all activities required for final stabilization at the facility or portion of the facility, in accordance with the SWMP and/or mine reclamation plan, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and
- iii. the SWMP has been amended to indicate those areas at which this exception applies.

Division Response

The division appreciates the additional permit language suggested by the commenter. The division agrees that the pollutant potential and potential for control measure failure is significantly reduced at facilities (or portions of facilities) where all industrial activities are temporarily or permanently complete and the permittee has implemented all final stabilization measures to reclaim the facility, or where final stabilization has been achieved.

Based on this reduced pollutant potential, the division agrees that it is appropriate to reduce the permittee's sampling/reporting burden by providing an exception to the requirement to conduct visual monitoring, benchmark sampling, or water quality standards monitoring in the permit. Therefore, the division added a new monitoring exception, which is only applicable to stormwater discharges (not process water discharges, including mine dewatering), at Part I.H.8 of the permit, as follows:

Monitoring Exceptions for Completed and Finally Stabilized Areas

The requirement that permittees conduct and document visual monitoring, benchmark sampling, or water quality standards monitoring of stormwater discharges does not apply at completed facilities, completed portions of facilities, or finally stabilized portions of facilities that meet all of the following conditions:

- a. All industrial activities (such as mining, processing, batch plant activities, other land disturbing activities, fueling, loading/unloading etc.) are **temporarily** or **permanently** complete in the specified area, where temporarily complete means that such industrial activities are not currently conducted at the facility, but may recommence in the future; and
- b. The permittee has implemented **all** final stabilization measures (with or without seeding) to enable the specified area to attain final stabilization, **or** the specified area has attained final stabilization consistent with Part.I.A.7.a or b of the permit; and
- c. All final stabilization measures are selected, designed, installed, implemented and maintained in accordance with good engineering hydrologic and pollution control practices such that they effectively reduce pollutant potential and the potential for control measure failure for the designated area; and
- d. The permittee amended the SWMP to identify those areas for which this exception applies, including the date the areas met the exception conditions.

Stormwater discharges from portions of facilities that are permanently stabilized (i.e., meet the termination criteria at Part I.A. 7.b of the permit, or have obtained an Acreage (or partial) Release from the DRMS for that portion of the facility) no longer require CDPS permit coverage, as the discharge no longer meets the definition of "stormwater discharges associated with industrial activity" pursuant to Regulation 61.3(2). In such cases, the permittee may request that the division reduce the facility permit boundary by the relevant portion of the facility.

2. Detained stormwater

Comment ID: COG50-8.5

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Part I.H.2 of the draft permit states: *"In the event storm water is detained at the facility but not within the mining excavation (such as in a detention pond/area), the permittee must conduct all required monitoring on discharge from such detention areas, whether the discharge results from a rain or snowmelt event, or from the manual release of accumulated stormwater from the detention area"*.

The statement should be changed to reflect the fact that the required monitoring should be conducted from discharges from detention pond/areas only when the discharge results in a discharge from the site. If there is a discharge from a detention area, but it does not result in a discharge from the site, no monitoring should be required.

Division Response

The division agrees with the suggested modification. The division modified the provision in Part I.H.2 of the permit as follows:

- a. Delayed release of stormwater: In the event stormwater is detained at the facility (such as in a detention pond/area), and discharges or is manually released at a later date, the permittee must conduct all required monitoring at the time of release, and record Storm Event information (see Part I.H.3, below) for the previous measureable storm event.

This requirement only pertains to those discharges that result in an actual discharge from the facility, or to a state surface water within the facility permit boundary. Discharges from the mining pit are not covered by this provision.

4. Sample Type and Requirements

Comment ID: COG50-8.6

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Part I.H.5.b of the draft permit states: "*Permittees must take a minimum of one grab sample from a discharge resulting from a measurable storm event*".

What are the Divisions expectations for collecting grab samples from measurable storm events that occur after hours or when the facility is not staffed (i.e. during the weekend)?

Division Response

For clarity, the permit (Part I.H.4.c) specifies that the permittee must collect grab sample during the first 30 minutes of the discharge, except for snowmelt monitoring, which has no 30-minute requirement. The permit further indicates that if the collection of a grab sample during the first 30 minutes is not possible, a grab sample can be taken as soon as practicable after the first 30 minutes, but the permittee must document and keep with the SWMP an explanation of why a grab sample during the first 30 minutes was not possible.

Not all measurable storm events occur outside of normal business hours. Given that only one storm event must be sampled per quarter, the division expects that permittees will be able to comply with this permit provision. The division recommends obtaining samples as early in the monitoring period as possible to increase the likelihood of obtaining samples during a storm event when staff is available.

The division does recognize the challenge in obtaining samples at locations with limited staffing. The flexibility in obtaining samples following the initial 30-minutes of the discharge is partially intended to assist in this effort. Other recommended strategies include targeting more predictable snowmelt events and when seasonally applicable, targeting monsoon or seasonally more likely rain showers, and using publicly available resources for storm tracking (e.g., weather radar). While the permit does not require an automated sampler, this may be a solution for a facility with limited staffing.

No changes were made to the permit in response to this comment.

7. Monitoring Exceptions for Inactive and Unstaffed Sites

Comment ID: COG50-8.7

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Part I.H.8 of the draft permit states: "*The requirement that permittees conduct and document visual assessments or water quality standards monitoring of storm water discharges does not apply at inactive and unstaffed sites*".

What is the Division's definition of "inactive and unstaffed"? Holcim staffs Coaldale Gypsum Mine for a few weeks each year during active mining campaigns. Once the mining campaign has been completed, the product is stockpiled for use throughout the year. A 3rd party contractor hauls the product from the mine and may only be present at the mine a few times each day.

Certainly during the active mining campaigns the definition of "inactive and unstaffed" will not be satisfied. However, can the definition be met after the active mining campaigns are complete? No Holcim staff are present and the only people that regularly visit the mine are the 3rd party contractors which are there a few times each day during loading operations. The closest Holcim personnel will be located at the Portland Plant, which is approximately one hour away.

Division Response

The division provided clarification for the term "inactive" at Comment ID: COG50-5.7. Facilities where industrial activities related to mining are conducted on a daily basis (i.e., hauling of material) are not considered inactive, and as such, the Monitoring Exceptions for Inactive and Unstaffed Sites do not apply.

No changes were made to the permit in response to this comment.

Comment ID: COG50-5.7

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

Visual monitoring was eliminated for Unstaffed and Inactive facilities, but this does not account for many facilities that operate intermittently (see Division of Reclamation, Mining, and Safety (DRMS) permit) or seasonally, or for active facilities that typically do not have stationed staff present (trucks loading in / out occurs frequently, but "permanent" staff may only be present occasionally). The Division also did not address remote locations, as the draft Fact Sheet indicated was a concern of many current permittees. For Intermittently and seasonally operating facilities (as defined by DRMS), and Remote facilities with intermittent site staffing, we believe requiring visual monitoring will present just as much burden as for unstaffed and inactive facilities. We recommend the exceptions described in section H.8. should be extended to intermittently operated, seasonally operated, and remote facilities with intermittent site staffing, as well.

Division Response

The division agrees that the visual, benchmark, and water quality standard monitoring exception can be extended to some facilities that are not permanently unstaffed and inactive, but that are similar in concept and that meet specific criteria. Pertinent to the division's response is text from Regulation 61.3(2)(e)(iii)(C) – the Stormwater applicability section as follows:

‘Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) **including active or inactive mining operations** (except for areas of coal mining operations no longer meeting the definition of a reclamation area under 40 CFR 434.11 (l) because the performance bond issued to the facility by the appropriate SMCRA authority has been released, or except for areas of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 16, 1990) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge stormwater contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; **(inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator, inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, nor sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim);**’ (emphasis added).

The definition of ‘inactive mining operations’ is broad. For permit COG500000, the division concluded that this term includes the following types of facilities that have an identifiable owner/operator:

- a facility where mineral mining and/or milling occurred in the past, but is not covered by an active mining permit issued by DRMS;
- a facility where operations are limited seasonally (i.e., intermittent operations), consistent with DRMS requirements for notification, only during the portion of the year when the facility is not active; and
- a facility that ceases operations for 180-days or more for reasons not associated with intermittent status and still has reserves (consistent with temporary cessation status as defined by DRMS), only during the time period the facility is not active.
- a facility where exploration or extraction activities have ceased permanently.

For the Monitoring Exceptions for Inactive and Unstaffed Sites to apply, the facility must be inactive and unstaffed. Therefore, facilities that fall under the definition of inactive (as described above) but are staffed, **do not** qualify for the exception.

Remote facilities that are also **inactive and unstaffed** would qualify for the Monitoring Exceptions for Inactive and Unstaffed Sites. As provided in the permit, once the facility becomes active and/or staffed, the exception no longer applies. The division added a definition to the permit (Appendix C) to clarify the meaning of 'inactive' for this permit, and made minor editorial revisions to the Monitoring Exceptions for Inactive and Unstaffed Sites provision for clarity.

In addition, remote facilities that meet the criteria for the Monitoring Exceptions for Completed and Finally Stabilized Areas also have reduced monitoring requirements (see Comment ID: COG50-5.6).

Comment ID: COG50-5.8

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

A presence of staff can decrease the risk of stormwater pollution (more people to notice when a condition of no exposure is not being met), so maintaining an unstaffed site should not be necessary to be eligible for this exemption. Additionally, an active site may be able to maintain a condition of no exposure just as well as an inactive site, but the permittee may still desire to maintain permit coverage (rather than submitting a no-exposure certification and terminating permit coverage).

Allowing portions of sites, rather than the entire site, to fall under this exemption encourages permittees to stabilize more area at their site and eliminate the chance for stormwater pollution from those portions.

Currently, the only way for a staffed and/or active site to demonstrate a condition of no exposure is for the entire facility to maintain the condition of no exposure, and face penalties (i.e. discharge without a permit) if they are found to have made incorrect judgment of the applicability of this condition. If the division would include positive incentives (i.e. less inspections and no visual monitoring) within this permit for facilities or portions of facilities that demonstrate a condition of no exposure (even if they are active or staffed), then permittees could recognize cost avoidance (avoiding time spent inspecting and monitoring) by stabilizing / covering more activities and disturbed areas. We believe this would have a more widespread environmental benefit.

The definition of no exposure should be clarified to include areas that were once mined but have been finally stabilized, since there is no longer a pollutant exposed to stormwater (i.e. disturbance is no longer present). Requiring an entire facility to be fully stabilized, with a formal release from the DRMS, does not encourage quick and partial stabilization of areas of the site where the permittee has temporarily or permanently ceased mining – this permitting approach allows for no reduction in permittee responsibility until the entire mine is closed / reclaimed. Further, if the permittee intends to mine a disturbed area in the future, the area will not be released by the DRMS until all mining has permanently ceased.

Therefore, we believe Part I.H.8 should be re-written as follows:

8. Monitoring Exceptions for Inactive and Unstaffed Sites

The requirement that permittees conduct and document visual assessments of water quality standards monitoring of stormwater discharges does not apply at inactive and unstaffed sites. Additional requirements apply to these facilities: at facilities and portions of sites that do not maintain a condition of no exposure, the permittee must conduct additional facility inspections as required at Part I.J.5 of this permit.

9. Monitoring Exceptions for Facilities and Portions of Facilities that Maintain a Condition of No Exposure

The requirement that permittees conduct and document visual assessments of water quality standards monitoring of stormwater discharges does not apply at facilities or portions of facilities that maintain a condition of no exposure, i.e., there are no industrial materials or activities exposed to stormwater. A condition of exposure may include areas of the site that were previously disturbed but that have now attained final stabilization (as defined in Part I, section A.7.b.iii.), with little evidence of soil erosion or other runoff problem, regardless of whether the DRMS has released the permittee from further responsibility for the facility or these portions of the facility. The conditions below must be met for this exception to apply:

- i. the permittee must maintain a statement in the facility SWMP indicating areas of the site in which there are no mining or processing materials or activities exposed to precipitation, in accordance with the substantive requirements in Regulation 61.3(2)(h). The statement must be signed and certified in accordance with Part I.F (Reporting and Recordkeeping).

- ii. if conditions change and industrial materials or activities become exposed to stormwater, this exception no longer applies and the permittee must immediately resume quarterly visual assessments or water quality standards sampling at the frequency identified in the permit certification.

Division Response

The comment requests that the definition of “No exposure” be expanded to allow portions of sites, rather than the entire site, to fall under the No Exposure Exclusion, such that the permittee is not required to conduct and document visual assessments or water quality standards monitoring of stormwater discharges for these portions of the site.

The term “No exposure” is defined by regulation, not by the permit. As provided at Regulation 61.3(2)(h)(iii)(B), the conditional exclusion from the requirement for a CDPS permit (No Exposure Exclusion) is available on a facility-wide basis only, not for individual outfalls. In other words, if any industrial activities or materials are or will be exposed to precipitation at the facility, the facility is not eligible for the No Exposure Exclusion. Therefore, the division cannot clarify the definition of “No exposure” to include areas that were once mined but have been finally stabilized, as requested by the commenter.

However, the division agrees that the pollutant potential and potential for control measure failure is significantly reduced at facilities (or portions of facilities) where all industrial activities are temporarily or permanently complete and the permittee has implemented all final stabilization measures to reclaim the facility, **or where final stabilization has been achieved**, as provided in the comment.

Therefore, the division determined it is appropriate to reduce the permittee’s sampling/reporting burden for qualifying facilities (or portions of facilities), and added a new monitoring exception for visual monitoring, benchmark sampling, or water quality standards monitoring of stormwater discharges at Part I.H.8 of the permit (Monitoring Exceptions for Completed and Finally Stabilized Areas). The exception is only applicable to stormwater discharges (not process water discharges, including mine dewatering).

Please see Comment ID: COG50-5.6 for the full text of the monitoring exception added to the permit.

Comment ID: COG50-0.4

Division Initiated Change to the Permit

Organization: Water Quality Control Division

The division added new language to the permit (Part I.H.9) that allows the division to revoke any monitoring exception under certain circumstances, as provided below. The new language adds clarity to the permit for the applicability of any monitoring exception.

Revocation of Monitoring Exception

The division retains the authority to revoke any Monitoring Exception identified in this Part where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

I. SPECIFIC MONITORING REQUIREMENTS - Stormwater Only

Comment ID: COG50-1.1

Author Name: Brain Bloess

Organization: American Gypsum

The American Gypsum Mine in Eagle County, CO is an active surface mine currently on a BLM lease near the town of Gypsum. The topography of the mine permit area and surrounding land is highly inaccessible in certain areas. Presently there are two outfalls that would require monitoring under the current COG500000 SWMP proposal. These outfalls would undoubtedly be considered, "substantially identical outfalls" as outlined in Part 1 Section (H)(1). Monitoring requirements, as proposed in Part 1 Section (1)(1) would require an employee of American Gypsum to visually inspect both outfalls quarterly on a rotating schedule during a measureable storm event equating to a visual inspection of each outfall twice a year.

Our concern with this requirement is for the safety of our employees attempting to collect a sample from one of our outfalls. We have one outfall that is accessible and one that would put our employees in a hazardous situation. American Gypsum is required by federal law to avoid placing our employees in a situation where they are faced with a recognized hazard. Given the terrain, accessing the outfall during a measurable event is a recognized hazard. Modification of the access to this outfall would be significant and unreasonable cost to American Gypsum. It is also unlikely that a modification of our mining plan, to such a drastic extent that would be required to access this area, would be approved by the BLM.

Therefore, we request that a section be included allowing exceptions to outfall monitoring when terrain and accessibility present a significant safety risk to employees attempting to perform monitoring.

Division Response

The division recognizes that safety is always a consideration with respect to monitoring process water and stormwater discharges, and addressed this concern under GENERAL MONITORING AND SAMPLING REQUIREMENTS at Part I.E.3 of the permit as provided below. The division modified the permit language to ensure this provision is clearly applicable to both process water and stormwater.

Adverse Weather Conditions

When adverse weather conditions prevent sample collection according to the relevant monitoring schedule, the permittee must take a substitute sample, as possible, during the remaining monitoring period; for stormwater, the permittee must take a substitute sample during the next qualifying storm event. Adverse conditions are those that are dangerous or create inaccessibility for personnel, such as local flooding, high winds, or electrical storms.

Adverse weather does not exempt the permittee from having to file timely DMRs. The permittee must report any failure to monitor and indicate the basis for not sampling during the usual reporting period.

1. Visual Monitoring

Comment ID: COG50-3.10

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Stormwater Requirements: Visual Sampling: While CMA appreciates that WQCD has omitted requirements for benchmark testing of stormwater, CMA questions the utility in visual sampling for many of the same reasons that benchmark testing is inappropriate. The goal of storm water controls in place is to *minimize* potential for pollution from stormwater areas and DRMS regulations are more than adept at accomplishing this. CMA agrees that the effectiveness of stormwater controls does not need to be measured quantitatively through benchmark testing. However, CMA does not agree that visual sampling will provide any additional environmental benefits over the current requirements. Site inspections provide a detailed qualitative evaluation of whether stormwater controls are working and adequate, especially when conducted following storm events. The addition of yet another qualitative comparison through visual sampling is unnecessary. Furthermore, as has been explained in previously submitted comments on the stormwater provisions in the coal and hardrock stormwater permits, it is extremely difficult to collect stormwater samples, considering the dynamic nature of precipitation events and intensity required to cause sheetflow from stormwater areas.

Division Response

The division appreciates that CMA and CSSGA acknowledged that the division reduced permittees sampling burden by not requiring benchmark sampling for stormwater-only discharges from SIC major group 14 industrial activities. The division made this decision only for stormwater discharges from SIC major group 14 industrial activities, and for the two benchmarks identified by EPA for this sector (i.e., Nitrate plus Nitrite Nitrogen and TSS), again differentiating sand and gravel from other extractive sectors, such as coal and metal mining.

As provided in the fact sheet, the division eliminated Nitrate plus Nitrite Nitrogen benchmark sampling since the source of the nitrogen is likely fertilizer used in reclamation efforts, and the permit contains other requirements applicable to this pollutant. The division eliminated TSS benchmark sampling because the permit addresses specific technology-based effluent limitations and other terms and conditions that are directly applicable to this pollutant.

The division disagrees with the comment that visual monitoring is inappropriate and not environmentally beneficial. Visual assessments of stormwater discharges are an inexpensive and valuable part of the stormwater management and planning process. Like benchmark monitoring, visual monitoring is a useful tool for assessing pollutant sources control and control measure effectiveness.

Further, the permit includes general exceptions to stormwater monitoring requirements, that address adverse (e.g., dangerous) weather conditions (see response to Comment ID: COG50-1.1), or climates with irregular stormwater (Part I.H.5). Where these types of conditions prevent a facility from performing the visual monitoring quarterly, permittees have the ability to modify their visual monitoring schedule such that the monitoring is conducted over the course of the year during periods when discharges, from rain or snow, actually occur and can be safely observed.

Lastly, the public notice version of the permit contained flexibility with respect to visual and water quality standards monitoring requirements at inactive and unstaffed facilities. Following public notice, the division added clarity to the permit for the existing visual monitoring exception at inactive and unstaffed facilities by defining the term 'inactive' for this permit (see response to Comment ID: COG50-5.7); and also added exceptions for monitoring (including for visual monitoring) at completed and finally stabilized areas (see response to Comment ID: COG50-5.6 and COG50-5.8).

No additional changes were made to the permit.

Comment ID: COG50-4.12

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Stormwater Requirements: Visual Sampling: CSSGA appreciates that WQCD has omitted requirements for benchmark testing of stormwater, however, CSSGA questions the utility in visual sampling for many of the same reasons that benchmark testing is inappropriate. The goal of stormwater controls in place is to *minimize* potential for pollution from stormwater areas and DRMS regulations are more than adept at accomplishing this. CSSGA agrees that the effectiveness of stormwater controls does not need to be measured quantitatively through benchmark testing. However, CSSGA does not agree that visual sampling will provide any additional environmental benefits over the current requirements. Site inspections provide a detailed qualitative evaluation of whether stormwater controls are working and adequate, especially when conducted following storm events. The addition of yet another qualitative comparison through visual sampling is unnecessary.

Division Response

Please see response to Comment ID: COG50-3.10.

Comment ID: COG50-5.9

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

The following limitations typical of mining facilities in Colorado make visual monitoring during rain / snowmelt events very difficult, unsafe, and/or impractical:

1. Surface mines typically cover large areas of land, with numerous outfalls
2. Outfalls may be large ravines / valleys (unlike discrete pipes or channels at many other industrial facilities), resulting in difficult / long distances traveled on foot to obtain representative samples
3. Many access roads to / through mines are often unpaved and cross uneven terrain
4. Mines are typically in remote locations
5. Sand and gravel mines may be seasonally or sporadically operated / staffed, yet still considered "active"
6. Heavy rainfall and snow-melt conditions may cause mining activity to temporarily cease at surface mines (particularly at municipal sand and gravel facilities), resulting in a lack of staff to perform monitoring
7. Disturbed areas of mines (and likely naturally dry drainage channels) in Colorado are going to have some amount of sediment in a discharge, regardless of the type / number of control measures used. Any sediment observed during visual monitoring of the discharge will require the permittee to perform multiple steps of documentation / corrective action for a potentially insignificant amount of sediment in runoff.
8. Automatic samplers would require significant spending (and power resources are often not nearby at mine outfalls)

We recommend the requirement to perform visual monitoring be removed, or an alternative method be allowed based on permittee's judgment that visual monitoring is impractical (provided a permittee documents in their SWMP why Visual Monitoring is impractical, and describes the alternative procedure to be taken). A couple potential alternatives include:

1. Permittees could observe one runoff event each quarter from a safe distance (e.g. using binoculars), which would be sufficient to notice when significant amounts of pollutants are being discharging off site.
2. Permittees could observe outfalls for signs of erosion or discharged contaminants within 24 hours of one measurable storm event per quarter.

Division Response

The comment outlines site-specific circumstances that make visual monitoring 'difficult, unsafe, and/or impractical'. The permit contains provisions, some of which the division added following review of the response to comments, that address these concerns, as follows:

- Substantially identical outfalls – see provisions at Part I.H.1 of the permit.
- Safety considerations – see provisions at Part I.E.3 of the permit, and response to Comment ID: COG50-1.1.
- Provisions for inactive and unstaffed sites (modified since public notice) – see response to Comment ID: COG50-5.7).
- New monitoring exceptions for Completed and Finally Stabilized Areas – see response to Comment ID: COG50-5.6 and COG50-5.8).

The division appreciates the alternative approaches provided by the commenter, and suggests that the permittee may opt to use these approaches in tandem with the flexibility offered by the permit, as a means of demonstrating the permittee's intent to comply with the permit requirement for visual monitoring. The last two bullets above identify additional flexibility added to the final permit with respect to visual monitoring.

No additional changes were made to the permit.

Comment ID: COG50-8.8

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Part I.H.5.b of the draft permit states: "*Permittees must take a minimum of one grab sample from a discharge resulting from a measurable storm event*". Part I.I.1 of the draft permit states: "*Once each quarter for the entire permit term, the permittee must collect a storm water sample from each outfall (or a substantially identical outfall pursuant to Part I.H.I above) and conduct a visual assessment of each of these samples*".

Is this the Divisions intention that for permittees subject to only stormwater requirements, that a grab sample be collected in each event in which a discharge occurs, or that a grab sample be collected at least once during the quarter when a discharge occurs?

Division Response

The division intends that, for permittees subject to stormwater-only requirements, permittees collect a grab sample for visual monitoring at least once during each quarter, from a measurable storm event. Part I.H refers to the *general* monitoring requirements for all stormwater discharges. Part I.H.4.b specifies that stormwater samples must be grab samples of discharge resulting from a measurable storm event. Part I.I. refers to the *specific* monitoring requirements for stormwater discharges. Part I.I.1 specifies that visual monitoring samples must be collected at least once per quarter. The division also provides specific monitoring requirements in each facility's certification.

No changes were made to the permit in response to this comment.

Comment ID: COG50-13.3

Author Name: Stephanie Fancher

Organization: Loveland Ready Mix Concrete, Inc.

Part 3.2.3 [of the MSGP], exceptions to quarterly visual assessments, states "If your facility is located in an area where limited rainfall occurs during many parts of the year (e.g., arid or semi-arid climate) or in an area where freezing conditions exist that

prevent runoff from occurring for extended periods, then your samples for the quarterly visual assessments may be distributed during seasons when precipitation runoff occurs. In areas subject to snow, at least one quarterly visual assessment must capture snowmelt discharge, taking into account the exception described above for climates with irregular stormwater runoff.

Division Response

The division understands the commenter's statement as a request and basis for the flexibility EPA provided in the 2008 MSGP in establishing monitoring frequencies other than quarterly, for facilities located in dry climates. The division already incorporated this flexibility at Part I.H.5 in permit COG500000 of the permit (Climates with Irregular Stormwater Runoff).

No changes were made to the permit in response to this comment.

3. Water Quality Standards Monitoring

Comment ID: COG50-3.12

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Stormwater Requirements: WQBELs: The factsheet and permit contain a discussion of the application of water quality based effluent limits to stormwater discharges. This requirement appears to be based on an unproven assumption that ambient conditions meet State water quality standards during storm events. The State should first show that stormwater in undisturbed areas is able to meet all water quality standards. It is CMA's belief that many of the standards that are measured in total form will have difficulty meeting State water quality standards during storm events solely because of the amount measured in the suspended sediments. Intense rainfall and snowmelt events erode and entrain soils, which contain regulated metals. In many cases, it is likely that the concentrations exceed State water quality standards. Before creating a compliance issue on a statewide level, the State should consider a regional approach to stormwater sampling and assessment to ensure that all water quality standards are achievable during storm events.

Division Response

The division disagrees with the comment that in order to regulate stormwater point sources, the division must first demonstrate that non-point source stormwater runoff can attain water quality standards. Consistent with the Clean Water Act, the Colorado Water Quality Control Act (CWQCA) requires a permit for the discharge of pollutants from a point source to any state water. Stormwater discharges associated with sand and gravel activities are point sources that require permit coverage. Nonpoint sources are exempt from such permitting but are addressed indirectly through the CWQCA's water quality provisions and TMDL processes to the extent practicable. Control measures to address nonpoint, unregulated sources are voluntary.

In controlling industrial stormwater, the division finds it to be most effective to require technology-based effluent limitations (narrative and numeric), narrative water quality-based effluent limitations, and specific terms for industrial categories such as sand and gravel, and then allow the discharger to implement control measures to meet these limits. The control measures chosen by the discharger should be those designed for the specific characteristics of the site and the receiving water. This narrative approach allows the discharger to determine their own approach for controlling stormwater discharges. Therefore, for this permit, the division decided to require a narrative water quality-based effluent limit requiring discharges to be controlled as necessary to meet water quality standards, and to provide an extra provision that allows the division to require additional requirements should the narrative approach be found not effective in a particular instance.

No changes were made to the permit in response to this comment.

J. FACILITY INSPECTIONS - Stormwater Only

1. Inspection frequency and personnel

Comment ID: COG50-3.11

Author Name: Stuart A. Sanderson

Organization: Colorado Mining Association (endorsed by CSSGA)

Stormwater Requirements: Inspection Requirements: The WQCD has proposed to increase the inspection frequency from semiannually to quarterly at staffed sites (and six per year at unstaffed sites). The WQCD cites deficiencies identified during onsite inspections and the persistence of identified problems from one inspection to the next. It appears that the WQCD may be increasing the requirements for all facilities due to the inappropriate actions of one or two. Many operations make every effort to correct deficiencies as quickly as possible. There is no need to increase the default inspection frequency when the current semiannual requirement may be adequate in many cases. At the very least, semiannual inspections could be kept as an option if the permit writer were to determine from inspection and corrective action records that this is sufficient.

The WQCD has also proposed that one of these inspections be conducted during a storm event. Again, there are many reasons why and situations where it is not safe for personnel to be sampling *during* a storm event. The first and foremost concern of a mining facility, or any industry, is the safety of the workers. For the WQCD to require that a worker compromise their own safety to observe stormwater controls "in action" is unnecessary. Again, storm events leave behind many indicators that can be used to determine control effectiveness.

CMA does support the WQCD's discretion in corrective action requirements following inspections. CMA agrees that corrective actions should be identified, documented, and resolved as soon as practicable. However, the scope, timing, and feasibility of corrective actions are extremely site-specific, and it would not be possible to set a single time limit that could account for all of the situations that will be encountered.

Division Response

The division does not agree that one inspection per quarter (four inspections per year) is an unreasonable permit requirement. This inspection frequency is consistent with other CDPS permits issued by the division e.g., COR900000, placer mine individual permits), and represents the minimum number of inspections that allows the permittee to evaluate field conditions and facility compliance with the permit, seasonally. The division's intent is that the quarterly inspection frequency is a minimum frequency and more frequent inspections may be appropriate in certain instances, such as for facilities with significant activities and materials exposed to stormwater, compliance issues, steep slopes, water crossings, etc .

The division agrees that safety is a consideration with respect to conducting one of the annual quarterly inspections during a runoff event. To that end, the permit specifically identifies that a runoff event for a rain event means during, or within 24 hours after the end of, a measureable storm event; and for a snowmelt event, means at a time when a measurable discharge occurs from the facility. Therefore, the permit does not require that the permittee conduct the runoff event inspection *during* the actual rain event, although if conditions allow (i.e., it is safe to conduct the inspection at this time), an inspection during the event is extremely informative with respect to evaluating control measure selection and adequacy. To conclude, the division fully expects that for at least one run-off event per year, a permittee will be able to safely conduct an inspection.

The division is unclear on the comment that 'CMA does support the WQCD's discretion in corrective action requirements following inspections', as the permit specifies both the scope and timing of the corrective action, and the comment did not suggest an alternate to this approach. Following PN, the division determined it was appropriate to combine the 24-hour and 5-day documentation requirements into one 5-day requirement, thereby streamlining this requirement for the permittee while maintaining the intent and scope of the requirement. For clarity, the revised corrective action section of the permit requires that permittees document specific information of any condition that triggers corrective action within 5 days of discovery, submit the documentation in an annual report to the Division (documentation requirements are specified in the permit), and retain a copy onsite with the facility SWMP. Note that triggering conditions may be discovered at any time, including during an inspection. Further, the permit requires that 'corrective actions associated with maintaining control measures must be conducted with due diligence, as soon as possible after the need is discovered, to achieve the effluent limits required by this permit. The permittee must implement interim control measures to achieve the effluent limits required by this permit while performing maintenance of the primary control measure.'

No changes were made to the permit in response to this comment.

Comment ID: COG50-4.13

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Stormwater Requirements: Inspection Requirements: The WQCD has proposed to increase the inspection frequency from semiannually to quarterly at staffed sites (and six per year at unstaffed sites). The WQCD sites deficiencies identified

during onsite inspections and the persistence of identified problems from one inspection to the next. It appears that the WQCD may be increasing the requirements for all facilities due to the inappropriate actions of one or two. Many operations make every effort to correct deficiencies as quickly as possible. There is no need to increase the default inspection frequency when the current semiannual requirement may be adequate in many cases. At the very least, semiannual inspections could be kept as an option, if the permit writer were to determine from inspection and corrective action records that this is sufficient.

The WQCD has also proposed that one of these inspections be conducted during a storm event. There are many reasons why it is not safe for personnel to be sampling *during* a storm event. The first and foremost concern of a mining facility, or any industry, is the safety of the workers. For the WQCD to require that a worker compromise their own safety to observe stormwater controls "in action" is unnecessary. Again, storm events leave behind many indicators that can be used to determine control effectiveness.

Division Response

Please see response to Comment ID: COG50-3.11.

Comment ID: COG50-5.10

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

For many facilities, the inspection frequency will be dramatically increased (see comparisons of the revised COG500000 permit to the current COR34000 permit below). Is the Division aware of significant non-compliance / pollution of state waters under the current permits, which would justify this dramatic increase of permittee responsibility (up to 18 times as many inspections for some facilities)?

1. Continuously operating facility: COR34000: 2 inspections per year; Draft COG500000: 4 inspections per year *and quarterly visual monitoring*
2. Inactive and Unstaffed facilities: COR34000: 2 inspections per year; Draft COG500000: 6 inspections per year
3. Inactive and Unstaffed facilities (Remote Location): COR34000: 1 inspection every 3 years; Draft COG500000: 6 inspections every year
4. Mines undergoing Reclamation: COR34000: 1 inspection per year; Draft COG500000: 6 inspections per year
5. Mines undergoing Reclamation (Remote facilities): COR34000: 1 inspection every 2 years, Draft COG500000: 6 inspections every year

We understand the revised COG500000 permit is being written similar to the COR900000 permit and the EPA MSGP. However, maintaining some elements from the old COG500000 and COR340000 permits would be appropriate, if they were providing sufficient protection to the environment.

Division Response

Please see responses to Comment ID: COG50-3.11, and Comment ID: COG50-5.11. Also, to complete the list provided in the comment, please note that the final permit contains a decreased inspection frequency for inactive and unstaffed facilities that establish a condition of no exposure, eliminates the runoff event inspection exception at facilities with completed and finally stabilized areas, and requires only four inspections per year instead of the five EPA requires in the 2008 EPA MSGP.

No changes were made to the permit in response to this comment.

Comment ID: COG50-5.11

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

No exceptions or discussion are provided for facilities undergoing reclamation. In the previous COR340000 permit (Part I.B.5.f), several exceptions to inspection frequency were provided for site's undergoing reclamation. We believe a set inspection schedule should be required (i.e. no more frequently for unstaffed and inactive sites) for facilities and portions of facilities undergoing reclamation that have been seeded and are simply awaiting re-growth of vegetation (similar to reduced inspection frequency in the Construction Stormwater Permit), due to the fact that vegetative growth can take several years in Colorado and frequent inspections will likely document "same conditions as last inspection". We recommend language similar to the COR030000 permit be added to this draft, such as:

Inspection Schedule at Facilities and Portions of Facilities Undergoing Reclamation

The permittee shall make a thorough inspection of their stormwater management system at least twice per year, in the spring and fall, at facilities or portions of facilities that are undergoing reclamation but where final stabilization has not been achieved due to a vegetative cover that has not become established. This schedule *only* applies if:

- i) all mining / processing activities that will result in surface ground disturbance at the facility or portion of the facility are temporarily or permanently completed;
- ii) all activities required for final stabilization at the facility or portion of the facility, in accordance with the SWMP and/or mine reclamation plan, have been completed, with the exception of the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and
- iii) the SWMP has been amended to indicate those areas that will be inspected in accordance with the reduced schedule allowed for in this paragraph.

Division Response

The division appreciates the additional permit language suggested by the commenter. The analogy to the Construction Stormwater Permit (COR030000) inspection frequency reduction, however, is not relevant to permit COG500000. The reduction in inspection frequency for ‘completed’ construction sites certified under permit COR030000 resulted in a monthly inspection frequency. While the division understands the reduced pollutant potential associated with sand and gravel facilities in the reclamation process, the division’s intent is that the quarterly inspection frequency is a minimum frequency and that more frequent inspections may be appropriate in certain instances, such as for facilities with significant activities and materials exposed to stormwater, compliance issues, steep slopes, water crossings, etc. (see response to Comment ID: COG50-3.11).

However, consistent with the approach the division took with respect to the exception from the runoff event inspection requirement at inactive and unstaffed sites that meet the condition of no exposure (Part I.J.4 of the permit), the division added an additional exception from the **runoff event inspection** requirement for completed and finally stabilized areas at (Part I.J.5 of the permit), as follows:

Runoff event inspection exception at Completed and Finally Stabilized Areas

The requirement that permittees conduct and document at least one (1) inspection per calendar year during a runoff event, does not apply at completed facilities, completed portions of facilities, or finally stabilized portions of facilities that meet all of the conditions below. Note that all other inspection provisions in this part remain applicable.

- a. All industrial activities (such as mining, processing, batch plant activities, other land disturbing activities, fueling, loading/unloading etc.) are **temporarily** or **permanently** complete in the specified area, where temporarily complete means that such industrial activities are not currently conducted at the facility, but may recommence in the future; and
- b. The permittee has implemented **all** final stabilization measures (with or without seeding) to enable the specified area to attain final stabilization, **OR** the specified area has attained final stabilization consistent with Part I.A.7.a or b of the permit; and
- c. All final stabilization measures are selected, designed, installed, implemented and maintained in accordance with good engineering hydrologic and pollution control practices such that they effectively reduce pollutant potential and the potential for control measure failure for the designated area; and
- d. The permittee amended the SWMP to identify those areas for which this exception applies, including the date the areas met the exception conditions.

Stormwater discharges from portions of facilities that are permanently stabilized (i.e., meet the termination criteria at Part I.A. 7.b of the permit, or have obtained an Acreage (or partial) Release from the DRMS for that portion of the facility) no longer require CDPS permit coverage, as the discharge no longer meets the definition of “stormwater discharges associated with industrial activity” pursuant to Regulation 61.3(2). In such cases, the permittee may request that the division reduce the facility permit boundary by the relevant portion of the facility.

3. Inspection documentation

Comment ID: COG50-13.5

Author Name: Stephanie Fancher

Organization: Loveland Ready Mix Concrete, Inc.

Part 3.1.2 of the MSGP addresses routine facility inspection documentation. It does not ask for summary report and schedule of implementation of corrective actions. Instead it simply states that “any corrective action required as a result of a routine facility inspection must be performed consistent with the Corrective Actions section of the permit.” Asking for a summary report and schedule of implementation is redundant, burdensome, and does nothing to improve the storm water management process; it is simply an addition of paperwork imposed by CDPHE. The Permit requires immediate action and documentation of corrective measures taken, a summary report and schedule, asked for by CDPHE does nothing to improve on or supplement this requirement.

Division Response

The comment correctly states the 2008 EPA MSGP Routine Facility Inspection Documentation (Section 4.1.2) requirement that any corrective action required as a result of a routine facility inspection must be performed consistent with Part 3 (the Corrective Actions section) of the permit. However, the Corrective Actions section of the 2008 EPA MSGP (Section 3) contains requirements for Corrective Action Reports (Section 3.4) that do require documentation, as provided below. With the exception of the timeline, the requirements of renewal permit COG500000 are identical to those in the 2008 EPA MSGP.

Excerpt 2008 EPA MSGP

3.4 Corrective Action Report

Within 24 hours of discovery of any condition listed in Parts 3.1 and 3.2, you must document the following information (i.e., questions 3-5 of the Corrective Actions section in the Annual Reporting Form, provided in Appendix I):

- Identification of the condition triggering the need for corrective action review;
- Description of the problem identified; and
- Date the problem was identified.

Within 14 days of discovery of any condition listed in Parts 3.1 and 3.2, you must document the following information (i.e., questions 7-11 of the Corrective Actions section in the Annual Reporting Form, provided in Appendix I):

- Summary of corrective action taken or to be taken (or, for triggering events identified in Part 3.2 where you determine that corrective action is not necessary, the basis for this determination);
- Notice of whether SWPPP modifications are required as a result of this discovery or corrective action;
- Date corrective action initiated; and
- Date corrective action completed or expected to be completed.

You must submit this documentation in an annual report as required in Part 7.2 and retain a copy onsite with your SWPPP as required in Part 5.4.

To be clear, permit COG500000 does not require that permittees submit corrective action documentation to the division. Rather, consistent with EPA’s approach, the permittee must submit the documentation in an annual report and retain a copy onsite with the facility SWMP.

No changes were made to the permit in response to this comment.

4. Exception to inspection frequency for inactive and unstaffed sites that meet the condition of no exposure

Comment ID: COG50-5.12

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

A presence of staff can decrease the risk of stormwater pollution (more people to notice when a condition of no exposure is not being met), so maintaining an unstaffed site should not be necessary to be eligible for this exemption. Additionally, an active site may be able to maintain a condition of no exposure just as well as an inactive site, but the permittee may still desire to maintain permit coverage (rather than submitting a no-exposure certification and terminating permit coverage).

Allowing portions of sites, rather than the entire site, to fall under this exemption encourages permittees to stabilize more area at their site and eliminate the chance for stormwater pollution from those portions. Currently, the only way for a staffed and/or active site to demonstrate a condition of no exposure is for the entire facility to always maintain the condition of no exposure, and face penalties (discharge without a permit) if they are found to have made incorrect judgment of the applicability of this condition. If the division includes positive incentives (i.e. less inspections and no visual monitoring) within this permit for facilities or portions of facilities that demonstrate a condition of no exposure (even if they are active or staffed), then permittees could recognize cost avoidance (avoiding time spent inspecting and monitoring) by stabilizing / covering more activities and disturbed areas. We believe this would have a more widespread environmental benefit.

The definition of no exposure should be clarified to include areas that were once mined but have been finally stabilized, since there is no longer a pollutant exposed to stormwater (i.e. disturbance is no longer present). Requiring an entire facility to be fully stabilized, with a formal release from the DRMS, does not encourage quick and partial stabilization of areas of the site where the permittee has temporarily or permanently ceased mining – this permitting approach allows for no reduction in permittee responsibility until the entire mine is closed / reclaimed. Further, if the permittee intends to mine a disturbed area in the future, the area will not be released by the DRMS until all mining has permanently ceased.

Therefore, we believe Part I.J.4 should be re-written as follows:

4. Exception to inspection frequency for sites or portions of sites that meet the condition of no exposure

The requirement that permittees conduct and document quarterly visual inspections of the facility, and conduct at least one inspection per calendar year during a runoff event, does not apply to facilities or portions of a facility as long as a condition of no exposure exists at the facility or at portions of the facility, i.e., there are no mining or processing materials or activities exposed to stormwater. Instead, permittees are required to conduct two site inspections annually of the areas maintaining a condition of no exposure, in the spring and fall, in accordance with the requirements of this Part.

A condition of exposure may include areas of the site that were previously disturbed but that have now attained final stabilization (as defined in Part I, section A.7.b.iii.), with little evidence of soil erosion or other runoff problem, regardless of whether the DRMS has released the permittee from further responsibility for the facility or portions of the facility.

To invoke this exception, a permittee must maintain a statement in the facility SWMP pursuant to Part I.M.7 indicating areas of the site in which there are no mining or processing materials or activities exposed to precipitation, in accordance with the substantive requirements in Regulation 61.3(2)(h). The statement must be signed and certified in accordance with Part I.F.4 (Reports and Recordkeeping).

If conditions change and mining or processing materials or activities become exposed to stormwater, this exception no longer applies and the permittee must immediately resume quarterly inspections.

Division Response

Please see responses to Comment ID: COG50-5.8 and Comment ID: COG50-5.11.

Comment ID: COG50-13.4

Author Name: Stephanie Fancher

Organization: Loveland Ready Mix Concrete, Inc.

Inactive and unstaffed facilities covered under Sector J (Non-Metallic Mineral Mining and Dressing), are not required to meet the “no industrial materials or activities exposed to stormwater” standard to be eligible for this exception from quarterly visual assessment, consistent with the requirements established in Part 8.J.8.1.

Division Response

The division understands the commenter’s statement as a request and basis for the conditional exemption from the no exposure requirement for quarterly visual assessments at inactive and unstaffed sites, as provided in the EPA 2008 MSGP.

The referenced EPA 2008 MSGP exemption from quarterly visual assessments (i.e., visual monitoring) demonstrates another area where the division deviated from EPA’s approach in developing the terms and conditions for renewal permit COG500000 (please see response to Comment ID: COG50-3.3). Instead of adopting EPA’s approach, the division required an increased inspection frequency at inactive and unstaffed sites where exposure exists, to provide the level of oversight necessary to address the pollutant sources that remain at such facilities.

Following review of comments received during the public notice period, the division added more flexibility to the permit with respect to exceptions from the requirement to conduct visual, benchmark, and water quality standards monitoring. Please see response to Comment ID: COG50-5.7 (provisions for inactive and unstaffed sites), and Comment ID: COG50-5.6 and Comment ID: COG50-5.8 (new exceptions for monitoring for completed and finally stabilized areas).

No additional changes were made to the permit.

4. Increased inspection frequency for inactive and unstaffed sites that DO NOT meet the condition of no exposure

Comment ID: COG50-5.13

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

In the "Unstaffed and Inactive" increased inspection frequency requirements, the time that must elapse between inspections was increased from 20 days to 40 days, which significantly limits the timeframe during which a permittee may perform an inspection. The increased frequency is 1 inspection every 2 months, or 1 inspection every ~60 days. Requiring 40 days to pass means an average timeframe of only 20 days during which the permittee can perform an inspection. At many remote facilities, this will mean significant scheduling and time-allotment challenges. We believe keeping the 20 day lapse period is sufficient.

Division Response

The division agrees with the suggested modification and modified the permit accordingly (Part I.J.4).

K. CORRECTIVE ACTIONS - Stormwater Only

Comment ID: COG50-4.14

Author Name: Todd R. Ohlheiser

Organization: Colorado Stone, Sand & Gravel Association (supported by Colorado Mining Association; Elam Construction, Inc.; Front Range Aggregates, LLC; Martin Marietta Materials; Rocky Mountain Aggregate & Construction; and Varra Companies Inc.)

Corrective Action Timing: CSSGA does support the WQCD's discretion in corrective action requirements following inspections. CSSGA agrees that corrective actions should be identified, documented, and resolved as soon as practicable. However, the scope, timing, and feasibility of corrective actions are extremely site-specific, and it would not be possible to set a single time limit that could account for all of the situations that will be encountered.

Division Response

Please see response to Comment ID: COG50-3.11

L. GENERAL SWMP REQUIREMENTS - Stormwater Only

Comment ID: COG50-5.1

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

No discussion is included in the draft permit or fact sheet regarding a timeframe / compliance schedule for SWMP updates. We request the division include a compliance schedule of at least 90 days after each facility's certification effective date, for all existing permitted facilities during which SWMPs can be updated. This delay will allow permittees time to thoroughly evaluate existing SWMPs and update based on new SWMP requirements, practice-based requirements, and new sampling / inspection requirements (particularly for permittees that have multiple facilities under this permit).

Division Response

Part I.L. of the permit states that "An existing permittee authorized under the previous versions of this permit shall modify the existing SWMP to comply with the requirements of this permit by January 30, 2015. The division agrees that it is appropriate to associate this requirement with the effective date of the permit certification, rather than a fixed date. Further, the division determined that **180 days** from the effective date of the permit certification is appropriate to allow sufficient time for permittees to complete this requirement, and modified the permit accordingly.

M. SPECIFIC SWMP REQUIREMENTS - Stormwater Only

7. Inspection Procedures and Documentation

Comment ID: COG50-5.14

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

"Permittees that invoke the exception to monthly inspections for inactive and unstaffed facilities..." Should the word monthly be changed to quarterly? Furthermore, the exception is with regards to monitoring, unless a condition of no-exposure can be demonstrated. We recommend this sentence be corrected or removed.

Division Response

The division agrees that the word **monthly** is incorrect, and changed the word to **quarterly** in the permit (Part I.M.7).

The permit contains exceptions for both monitoring and inspections – the exception at Part I.M.7 of the permit is pertinent to inspections.

Comment ID: COG50-8.9

Author Name: Justin Andrews

Organization: Holcim (US) Inc.

Part I.M.7.c of the draft permit states: *"Permittees that invoke the exception to monthly inspections for inactive and unstaffed facilities must include in the SWMP the sign and certified documentation to support this claim as required Part I.J (Inspections)"*.

Part I.J.4 of the draft permit states that for facilities that are inactive and unstaffed, and a condition of no exposure exists, the facility must conduct two facility inspections, one in the spring and one in the fall.

Part I.J.4 of the draft permit also states that facilities that are inactive and unstaffed, but a condition of no exposure does not exist, facilities are required to conduct six site inspections annually.

There is no mention of monthly inspections in Part I.J of the draft permit.

Division Response

Please see response to Comment ID: COG50-5.14

APPENDIX C - Definitions

Comment ID: COG50-5.15

Author Name: Scott Schnake

Organization: Colorado Springs Utilities

The definitions for unstaffed, remote (fact sheet page 5), and inactive facilities are not included in the permit's definitions section. We also recommend a definition for intermittent operation be added, as a reference to the DMRS definition of Intermittent Operations for mining activity (references C.R.S 34-32.5- 103(11)(b)).

Division Response

The general meaning of the word “unstaffed” is “without staff, or workers”. In permit COG500000, the term “unstaffed” is used together with “inactive” to document conditions that qualify a facility for various monitoring exceptions and alternate inspection requirements. For these exceptions/alternate requirements to apply, the facility must be both inactive and unstaffed. The presence of staff at the facility to conduct required facility inspections does not change the inactive and unstaffed status of the facility; however, if staff or workers are present at the facility for other activities, the facility does not qualify as “unstaffed”, and exceptions/alternate requirements do not apply. The division added clarification to the permit to address this comment (see Part I.H.7 and Part I.J.4).

The term “remote” was included in the factsheet because it was used in a stakeholder comment. The permit includes exceptions for facilities that are inactive and unstaffed, but does not use the term remote. Remote facilities that are inactive and unstaffed are eligible for the exceptions. As provided in the permit, once a facility becomes active and/or staffed, the exception no longer applies. No changes were made to the permit in response to this comment.

The division provided clarification for the term “inactive” at Comment ID: COG50-5.7 and modified the permit accordingly (Appendix C). In the division’s response to this comment, the division acknowledges facilities where operations are limited seasonally (i.e., intermittent operations), however, because this is a definition in DRMS regulations, the division concluded it is not necessary to repeat it here.
