WATER QUALITY CONTROL DIVISION IMPLEMENTATION POLICY COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT	Implementation Policy Number: CW 14
	Statutory or Regulatory Citations: Colorado Water Quality Control Act, § 25-8-202(7)(b), C.R.S. Water Quality Control Commission Regulation 61 – Colorado Discharge Permit System Regulations (5 CCR 1002-61)
	Key Words: gravity flow, dewatering, groundwater control
Reporting and Permitting of Discharges from Gravity Flow Dewatering Systems for Select Activities	Approved by: Meg Parish, Permits Section Manager
	Effective Date: October 20, 2021
	Scheduled Review Date: October 20, 2024

Background

The Water Quality Control Division (division) estimates there are hundreds of thousands of gravity flow dewatering systems installed across Colorado to protect subterranean infrastructure related to transportation (e.g. roadways and bridges), utility lines (e.g. water, sanitary sewer, stormwater, and electric), impoundments, and long term slope stabilization. Gravity flow dewatering systems typically require a conveyance of groundwater that may result in a point source discharge of the transported groundwater to other state waters. Under the Colorado Water Quality Control Act, all point source discharges to state waters are subject to discharge permit requirements. Dewatering discharges in particular are commonly covered under the division's dewatering general permit program.

This policy is intended to recognize a specific category of *gravity flow* dewatering discharges that are currently occurring throughout Colorado, and for which the division will not actively pursue reporting or discharge permitting while this policy is in effect. The scope of this policy is limited to the specific discharge activities and conditions defined herein. Historically, the division has rarely received reporting of unpermitted discharges and/or received permit applications for discharges from these types of gravity flow dewatering systems. Given the vast numbers of these systems, the division has determined that requiring reporting or permit coverage for all of these systems would be impracticable and would not be an efficient use of the division's limited resources at this time. To be clear, this policy does not require entities to inventory and/or report gravity flow dewatering discharges covered under this policy to the division.

The division recognizes that discharges within the scope of this policy may contain pollutants, including but not limited to naturally occurring metals in groundwater, at concentrations above the water quality standards of surface water receiving streams. However, the division also expects that such discharges will

not result in conditions that would significantly alter the physical, chemical, biological, and radiological integrity of the receiving water where the applicability, criteria, conditions, and control measures of this policy are met.

Purpose

The purpose of this policy is to define a specific category of gravity flow dewatering discharges for which the Water Quality Control Division (division) will not actively pursue reporting or discharge permitting in accordance with Colorado Revised Statute (CRS) 25-8-601, of the Colorado Water Quality Control Act and for which the division will not take enforcement action against those operators that have not obtained permit coverage for the discharge.

Nothing in this policy shall be construed to identify the need for, or priority of, compliance response for discharges outside of the applicability of this policy or discharges that do not meet the limitations of this policy.

Nothing in this policy shall be construed to modify the definition or interpretation of a point source discharge requiring permit coverage in accordance with the Colorado Water Quality Control Act, and only applies to the division's practices for permitting and enforcement.

Authority

In accordance with CRS 25-8-501 of the Colorado Water Quality Control Act, and consistent with the federal Clean Water Act, no person shall discharge any pollutant into any state water from a point source without first having obtained a permit from the division. The Colorado Water Quality Control Act also includes provisions for oversight and enforcement of the requirements to obtain permit coverage for point source discharges and for reporting of non-permitted point source discharges. Point source discharges from gravity flow dewatering systems are subject to requirements in the Colorado Water Quality Control Act to obtain discharge permit coverage. However, neither the act nor the implementing regulation for the act compels specific compliance or enforcement responses for point source discharges that occur without permit coverage or for failure to report a non-permitted discharge. Guidelines for responding to such occurrences are instead contained within implementing policies and procedures. Consistent with this process, this policy relies on the discretion provided in the act and regulation for the division to determine the appropriate response to the occurrences of non-reported and unpermitted discharges.

Definitions

The following definitions apply under this policy:

- **Construction Activities**: Ground surface disturbing and associated activities (land disturbance), which include, but are not limited to, clearing, grading, excavation, demolition, installation of new or improved haul roads and access roads, staging areas, stockpiling of fill materials, and borrow areas.

- **Groundwater**: Subsurface waters in a zone of saturation which are or can be brought to the surface of the ground or to surface waters through wells, springs, seeps, or other discharge areas (Regulation 61, Section 61.2(37)).

- **Groundwater Table:** The upper level of the zone of saturation in which the soils, sediments, or rocks are saturated with water. Also commonly called a water table.

- **Gravity Flow Dewatering Systems:** Under this policy, gravity flow systems are non-pressurized, no-pump systems designed to use only the force of gravity to achieve subsurface groundwater drainage or dewatering of a specified area. These systems are typically designed to have outlets at a sufficiently low level, relative to the groundwater table, where groundwater flows without the need for pumping. Some examples of the types of gravity flow dewatering systems expected to be covered under this policy are as follows:

    - Drainpipes and supporting infrastructure designed to maintain the integrity of impoundment liners
    - French drains (e.g., under roadways or for expansive soil mitigation)
    - Drains at bridge aprons (i.e., almost any bridge built after 1992 is expected to include a drain at the bottom of the abutment to collect and divert groundwater)
    - Weep holes in retention walls (i.e., typically directing groundwater to subsurface drains)
    - Interceptor drains (e.g., underdrains, interconnected Belled-Caisson Drains with pipe, blanket drains with pipe, horizontal drains, toe drains) typically designed to stabilize slopes

- **Impoundment** – An impoundment is a natural topographic depression, excavation, pit, pond, lagoon, trench, or diked area. Examples include a stormwater basin, landfill, domestic wastewater treatment pond/lagoon, or reservoir created by a dam.

- **Industrial Activities** – The term "industrial activities" refers to any activities that meet one or more of the following criteria:

    - Mining activities under the authority of the Colorado Division of Reclamation, Mining and Safety (DMRS), including coal, construction materials, and hard rock extraction.

    - Oil/gas exploration, production, processing, or treatment operations, or transmission activities

    - Activities at waste landfills, land application sites, open dumps, and transfer stations.

    - Activities at the categories of industries identified in Regulation 61, Section 61.3(2)(e)(iii)(A) through (K) and 61.3(2)(e)(vii) where industrial stormwater requirements would specifically apply for any stormwater discharges that would occur from the area. Per Regulation 61.3(2)(e)(ii)(B), at these categories of industries, industrial stormwater requirements apply to activities including, but not limited to industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and final products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to stormwater.

- **Point Source:** Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. "Point Source" does not include irrigation return flow (Regulation 61, Section 61.2(75)).

- **State Waters**: Any and all surface and subsurface waters which are contained in or flow in or through this State, but does not include waters in sewage systems, waters in treatment works of

disposal systems, waters in potable water distribution systems, and all water withdrawn for use until use and treatment have been completed (Regulation 61, Section 61.2(102)). Examples of state waters include, but are not limited to:

  - Rivers, lakes, streams
  - Private ponds, natural or manmade, (unless they are lined, have restricted public access, and do not have an outlet)
  - Waters flowing through private property (i.e. streams)
  - Wetlands
  - Irrigation canals or ditches (regardless of whether the water is subsequently used for irrigation)

- **Stormwater:** Stormwater runoff, snow melt runoff, and surface runoff and drainage (Regulation 61, Section 61.2(103)).

Applicability

This policy is applicable to point source discharges of groundwater, and groundwater mixed with stormwater and/or surface water, to state waters from the specific types of gravity flow dewatering activities listed below and where the criteria, conditions, and control measures of this policy are met. Discharges that do not meet the requirements of this policy must apply for appropriate discharge permit coverage in accordance with CRS 25-8-501.

1. Applicable Discharges

This policy is only applicable to gravity flow dewatering discharges related to the following categories of activities where the discharge has not come into contact with Construction Activities and/or are not from areas associated with Industrial Activities, as defined above, as these types of discharges would require further evaluation by the division for the potential of pollutants to be present. Within each category, non-applicable discharges may exist, and specific examples of non-applicable discharges are provided in Part 2 - Non-Applicable Discharges, below.

a. **Transportation** – discharges from gravity flow dewatering systems designed to protect transportation related infrastructure such as pavement, roadway fills and cuts, retaining walls, and bridges from damage due to groundwater. This may include french drains under roadways and tunnels.

b. **Utility** – discharges from gravity flow dewatering systems designed to protect underground utility lines such as water, storm sewer, sanitary sewer, gas, telecommunication, and electric lines from damage due to groundwater.

c. **Impoundment** – discharges from gravity flow dewatering systems designed to protect impoundment infrastructure (e.g., liners, embankments, dikes) from damage due to groundwater. This policy applies to discharges from gravity flow dewatering systems designed to protect impoundments used for raw drinking water storage, domestic wastewater treatment, stormwater, flood control (i.e., dams and dikes), and hydroelectric power. This policy does not apply to discharges from systems designed to protect impoundments that contain solid waste as defined in 6 CCR 1007-2 Part 1, agricultural waste as defined in 6 CCR 1007-2 Part 1, or are associated with mining and oil/gas activities, as these types of discharges would require further evaluation by the division for the potential of pollutants to be present.

This policy is limited to impoundment(s) that do not exceed the allowable seepage rate 1 X 10-6 cm/sec ("Allowable Seepage") and meet the minimum requirements specified under 5 CCR 1002-61.14(9)(a) to obtain a discharge permit waiver from the division. However, impoundments containing only state waters, stormwater, or untreated raw water that has been withdrawn for use by a drinking water treatment facility, are not subject to this limitation.

d. **Other Land and Stream Stabilization -** discharges from gravity flow dewatering systems designed to protect slopes, banks, retaining walls and similar structures adjacent to streams or other infrastructure for the purpose of maintaining a stable bank area and providing protection from damage due to groundwater. This may include long-term discharges from gravity flow systems designed to manage seeps and springs.

2. **Non-Applicable Discharges**

This policy is not applicable to the following discharges that are addressed in other regulations or policy, even if the discharge is associated with an applicable category of activity identified in Part 1, above.

a. Discharges that are allowable non-stormwater discharges under General Permit COR900000 for Stormwater Discharges Associated With Non-Extractive Industrial Activity.

b. Discharges that are allowable non-stormwater discharges covered under General Permit COR400000 Stormwater Discharges Associated with Construction Activity.

c. Discharges from foundation dewatering systems at commercial, industrial, and/or residential buildings installed to protect or maintain underground parking garages, elevator shafts, and/or similar significant subterranean features.

d. Discharges from flows or return flows of irrigation water, or other agricultural wastes that are already not subject to CDPS permitting requirements in accordance with CRS 25-8-504.

e. Discharges to groundwater conducted in accordance with the conditions of the division's Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land and associated Water Quality Policy 27 - Low Risk Discharges.

f. Discharges to groundwater subject to regulation by the EPA or by implementing agencies under CRS 25-8-202(7) of the 1989 amendments to the Colorado Water Quality Control Act (Senate Bill 89-181). Note that this exclusion does not apply to discharges to groundwater that is hydrologically connected to surface water and for which the division determines that the Regulation 61 requirements to protect surface waters apply.

g. Discharges contaminated by pollutants that were contributed by a spill or other release meeting the Colorado reporting requirements pursuant to CRS 25-8-601 (2).

Criteria, Conditions, and Control Measures

The following criteria, conditions, and control measures must be met by anyone discharging in accordance with this policy.

1. Criteria

a. The discharge consists of groundwater-only, or groundwater water commingled with stormwater or surface water.

b. Prior to discharge there is no intervening industrial use, and no commingling with other wastewaters (e.g., construction dewatering, groundwater remediation, mining).

c. The discharge consists of water that has not come into contact with construction activities and is not from an area associated with industrial activities, as defined herein.

d. The discharge is not subject to any Federal Effluent Limit Guidelines (ELGs) for categories of existing or new sources under Title III of the Clean Water Act, including but not limited to ELGs for landfills, mineral mining and processing, oil and gas extraction.

e. The dewatering system is gravity flow without a pump.

2. Conditions

a. **Controlling the discharge:** The discharge must be routed in such a way as to prevent contact with potential sources of contamination (e.g. petroleum products, process materials, or waste stored at a facility; or construction activities). The owner of the property where the discharge is occurring must have prior knowledge and grant permission for the discharge.

   If the discharge is to a state surface water, it must not contain Total Suspended Solids (TSS) in excess of 45 mg/L. The operator is responsible for determining what is necessary for preventing or removing TSS from the discharge. It is not required that an analytical test method be used to make this determination, and the division expects that in most cases a visual evaluation will be adequate to make this determination.

b. **Controlling erosion:** The discharge shall not cause erosion of a land surface that could cause pollution of the receiving water. Signs of visible erosion that have the potential to cause pollution without downstream controls measures implemented include the formation of rills or gullies on the land surface. Energy dissipation devices designed to protect downstream areas from erosion by reducing velocity of flow may be necessary to prevent erosion.

c. **Controlling pollutant potential of deposited sediment:** Control measures shall be implemented to prevent any sediment deposited during discharge from being discharged to a state waters during future runoff or discharge events.

d. **Preventing the discharge of leaked materials:** Control measures must be implemented to prevent the discharge of pollutants contributed by materials that have leaked out of a utility line, or leaked out of an impoundment in excess of the allowable seepage rate of 1 X 10-6 cm/sec. Control measures may include, but are not limited to, conducting due diligence to identify potential sources of contamination in the discharge, visual inspection, periodic sampling of the discharge, and/or having a qualified engineer registered in the State of Colorado conduct an impoundment seepage rate study.

e. **Additional Requirements and Property Rights:**

   - All discharges must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts, ditch owners, and other local agencies regarding any discharges

to storm drain systems, conveyances, ditches or other water courses under their jurisdiction. *This includes obtaining explicit approval from the entity(s) that own and maintain any storm sewer system or ditch that the discharge enters, and obtaining appropriate water rights and authorization through the Division of Water Resources.*
    - The guidance included in this document in no way reduces the existing authority of the owner of a storm sewer, ditch owner, or other local agency, from prohibiting or placing additional conditions on the discharge.
    - The discharge shall not result in flooding of neighboring property, streets, gutters or storm sewers. The discharge must be diverted from building foundations or other areas that may be damaged from ground settling or swelling.

3. Control Measures

Control measures must be implemented as necessary to meet the conditions above, by anyone discharging under this policy. All control measures used to meet the provisions of this policy must be selected, installed, implemented and maintained according to good engineering, hydrologic and pollution control practices.

Groundwater Discharges Identified as Potential Significant Contributors of Pollutants

The division intends that the decision not to actively pursue reporting or permit coverage for a discharge under this policy will primarily be based on the requirements described in the sections above. However, on a case-by-case basis the division may require permit coverage for any discharge that is identified as a potential significant contributor of pollutants to the receiving water. The division will make this decision based on factors including, but not limited to, the known concentration of pollutants in the discharge, the applicable standards for the receiving water, potential sources of nearby groundwater contamination, discharge flow rate, the existing water quality and assimilative capacity of the receiving water, and environmental justice concerns in the area of the discharge location.

The division will consider issuing permit coverage for any gravity flow dewatering discharge, including for the specific activities defined in this policy, where the division has received a discharge permit application.

Compliance and Enforcement

The division will not take enforcement action against those operators which have not reported a discharge or obtained CDPS permit coverage for gravity flow dewatering discharges meeting the criteria, conditions, control measures, and due diligence requirements of this policy. The division will determine on a case-by-case basis the appropriate response to unreported or unpermitted discharges that do not meet these limitations. Nothing in this policy shall be interpreted to constitute a determination by the division that such reported or unpermitted discharges should be prioritized or targeted for permitting or formal enforcement.

This approach to enforcement will not apply to criminal violations or in situations where there are egregious circumstances, such as those resulting in serious environmental harm, adverse impacts to the beneficial uses of state waters, or which pose an imminent or substantial endangerment to public health and/or the environment. Operators are responsible to determine the level of evaluation that may need to be implemented for a specific discharge based on its location and the potential for pollutant sources. This may include identifying sources of groundwater contamination at the dewatering location (e.g., landfills, mine or mine tailing area, Leaking Underground Storage Tank (LUST) sites, Voluntary Cleanup

(VCUP) sites, environmental covenants, Superfund sites, or other area of contamination), and/or conducting source water sampling and analysis.

It should be noted that unpermitted surface water discharges could be subject to third-party or federal enforcement even where the requirements of this policy are implemented. Operators wishing to obtain the additional legal protection provided by permit coverage can submit a permit application to the division for processing.

The issuance of this policy does not convey any property or water rights in either real or personal property, or stream flows, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights. All discharges must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts, and other local agencies regarding any discharges to stormwater conveyances, or other water courses under their jurisdiction. This policy in no way limits the division's authority to enter and inspect premises and records, as provided in the Colorado Water Quality Control Act (CRS 25-8-306).

This policy is intended to provide operational direction to the division. Nothing in this policy shall be construed to preclude the authority of the division pursuant to any applicable state law or regulation under authority granted by Section 510 of the Clean Water Act.

Discussion of Comments

The division released this document for public review and comment as a draft in September 2021. The division received minor recommendations to enhance clarity from one commenter. No substantive changes were requested or made to the document.

ATTACHMENT 1
DIVISION GUIDANCE ON DRAFT CLEAN WATER POLICY 14
Reporting and Permitting of Discharges from Gravity Flow Dewatering Systems for Select Infrastructure Protection Activities

A. Examples Where the Policy Applies

1. During site construction activities, ABC Company exposes a seep in the side of a hill. When construction activities are complete, ABC company implements a long term gravity flow dewatering system to direct the seep water to a nearby storm drain (with permission from the MS4). Discharges to state waters from this gravity flow dewatering system are eligible for coverage under this policy for the period after the area has been finally stabilized and construction is complete where the requirements of this policy are met. (See example B.1 for the period during construction.)

2. We Fix Roads Company implements a long term gravity flow dewatering system (e.g., weep holes, french drains) to stabilize retaining walls along the highway. Discharges to state waters from this gravity flow dewatering system are eligible for coverage under this policy where the requirements of this policy are met.

3. We Fix Roads Company installs a long term gravity flow dewatering system (e.g., perforated piping behind a bridge abutment) to drain accumulated groundwater to the nearby surface water body. Discharges to state waters from this gravity flow dewatering system are eligible for coverage under this policy where the requirements of this policy are met.

4. The town's drinking water plant installs a long term gravity flow dewatering system underneath several lined impoundments to maintain the integrity of the liners and impoundments. Discharges to state waters from this gravity flow dewatering system are eligible for coverage under this policy where the requirements of this policy are met.

B. Examples Where the Policy Does Not Apply

1. At their construction site, ABC Construction installs a temporary gravity flow dewatering system to dewater groundwater emerging in their excavation or graded area. This policy is not applicable to discharges associated with construction dewatering; therefore, it does not provide coverage of any construction dewatering occurring at this site. Coverage under one of the division's general permits for dewatering (e.g., COG080000, COG317000) or an individual permit may be required.

2. Z Corporation installs a long term gravity flow dewatering system to move groundwater away from their office building foundation with groundwater discharge to the storm sewer. This policy is not applicable to discharges from foundation dewatering systems at commercial, industrial, and/or residential buildings with underground parking garages, elevator shafts, and/or similar significant subterranean features, regardless of whether the system is pumped or gravity flow. Coverage under one of the division's general permits for dewatering (e.g., COG603000, COG318000) or an individual permit may be required.

3. The town's domestic wastewater treatment facility (WWTF) plant installs a long term gravity flow dewatering system underneath several lined impoundments to maintain the integrity of the impoundments. The WWTF has a hydraulic design capacity greater than one million gallons per day (MGD). Discharges to state waters from this gravity flow dewatering system are not eligible for coverage under this policy.

   The rationale for this determination is that 1) domestic WWTFs rated greater than one MGD are "activities at the categories of industries identified in Regulation 61, Section 61.3(2)(e)(iii)(A)

through (K) **and** 2) industrial stormwater requirements apply at the lined impoundments per Regulation 61.3(2)(e)(ii)(B). Specifically, industrial stormwater requirements apply at this category of industry for activities including, but not limited to, stormwater discharges from sites used for the application or disposal of process waste waters, storage, or disposal. This policy specifically excludes activities at areas of Industrial Activities which includes the categories of industries identified in Regulation 61, Section 61.3(2)(e)(iii)(A) through (K) and 61.3(2)(e)(vii) where industrial stormwater requirements specifically apply.

4. We Recycle Company is subject to industrial stormwater requirements per Regulation 61, Section 61.3(2)(e)(iii)(A) through (K). The company implements a long term gravity flow dewatering system to direct the seep water emerging at the site to a nearby storm drain. This policy does not apply to this discharge because this policy specifically excludes discharges associated with areas of Industrial Activities as defined herein.