



## **Low Risk Discharge Guidance Discharges of Uncontaminated Groundwater to Land**

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### Scope and Purpose of Modification

This revised guidance document is effective August 4, 2017. In addition to organizational and editorial revisions, the following substantive modifications were made:

- Additional information was added regarding determining if the discharge is uncontaminated. Refer to the Criteria section.
- Removed the reference to solid waste permitting in the background and discussion portion of the document. Uncontaminated groundwater would typically not be regulated as a solid waste, and therefore the discussion was not likely to be applicable to discharges covered by this guidance. However, it remains the responsible parties' obligation to ensure compliance with other applicable laws and regulations, including solid waste requirements.
- The requirement that the discharge be returned to the same aquifer that it was drawn from was added. This is consistent with the intent of the original version, as identified by the examples of covered discharges provided: construction dewatering, subterranean or foundation dewatering, uncontaminated vault dewatering, and utility work.

### Background and Discussion

This discharge policy guidance has been developed in accordance with WQP-27, Low Risk Discharges Policy. This guidance is only applicable to discharges meeting the low risk discharge criteria and conditions identified below. **Refer to the Alternative Disposal Options section at the end of this document for additional information for discharges that do not meet the criteria and conditions of this guidance.**

The division has issued general permits for point source discharges of groundwater to land, as identified in the Alternative Disposal Options section. However, for the category of point source discharges that meet the criteria and conditions outlined in this document, the division has determined it is appropriate to manage the discharges through the development of guidance instead of through pursuing permit coverage. When the criteria and provisions of this guidance are met, the division will not actively pursue permitting or enforcement for discharges of groundwater to land, unless on a case-by-case basis, the division finds that a discharge has resulted in an adverse impact to the quality of any state waters receiving the discharge.

Discharges of uncontaminated groundwater to land that are typically associated with short term or intermittent



discharges are not expected to contain pollutants in concentrations that are toxic, or in concentrations that would cause or contribute to a violation of a water quality standard for ground water. A large number of these types of discharges occur state-wide every year, which requires a resource-intensive effort to permit without a resulting general benefit to environmental quality in the vast majority of situations.

Discharges of uncontaminated groundwater to land that may be covered under this guidance document when all the provisions in the document are adhered to may include, but are not limited to: construction dewatering, subterranean or foundation dewatering, uncontaminated vault dewatering, and utility work.

### Criteria, Conditions, and Control Measures

#### ➤ Definitions

- ❖ **Control Measures:** are any best management practice or other method used to prevent or reduce the discharge of pollutants to waters of the state.

#### ➤ Low Risk Discharge Criteria

This guidance is applicable to point source discharges that meet the following criteria and that meet the conditions listed in the next section. Refer to the Alternative Disposal Options section for guidance on addressing water not meeting these criteria.

- ❖ The source of the discharge must solely be uncontaminated groundwater or uncontaminated groundwater combined with stormwater. Refer to the guidance in the Control Measure section below for information on identifying potentially contaminated groundwater.
- ❖ To be considered uncontaminated, the source ground water must not contain pollutants in concentrations that exceed water quality standards for groundwater applicable to the receiving groundwater. For ground water for which standards have not already been assigned in Regulation 42, Site-Specific Water Quality Classifications and Standards for Ground Water (5 CCR 1002-42), pollutants shall not exceed the criteria set forth in Tables 1 through 4 of "The Basic Standards for Ground Water," in Regulation 41, The Basic Standards for Ground Water (5 CCR 1002-41). This guidance does not include consideration of criteria for groundwater based on existing ambient quality as of January 31, 1994, as set forth in Regulation No. 41.5.C.6.b.i(A). Because a site-specific evaluation and determination is necessary for application of such criteria, the division has determined that consideration of this allowance is not appropriate under this guidance. The source groundwater must be from the same aquifer that the water will be returned to. Specifically, this guidance is not applicable to discharges from deep wells that draw water from confined aquifers which will often have substantially different water quality compositions than the shallower unconfined aquifers to which the water will be discharged.
- ❖ The discharge must be to land. Point source discharges to surface waters of the state, storm sewers, or other drainage conveyance systems are not covered by this guidance.

#### ➤ Conditions

The following conditions must be met by anyone discharging wastewater in accordance with this guidance:

- ❖ **Prohibition of pollutants in the discharge:**
  - No chemicals may be added.
  - If the discharge is from vaults or similar structures, the discharge cannot be contaminated by process materials used, stored, or conveyed in the structures, or by introduced surface water runoff from outside environments that may contain oil, grease, and corrosives.
  - A visible sheen must not be evident in the source water or discharge.
- ❖ **Exclusion of Process Discharges:**
  - The groundwater shall not be used in any additional processes. Processes include, but are not limited to, any type of washing, heat exchange, or manufacturing.
- ❖ **Controlling the discharge:**
  - The groundwater discharge cannot leave the operational control of the entity administering the land application. The owner of the property where the discharge is occurring must have prior knowledge and grant permission for the land application.
  - Land application must be conducted at a rate and location that does not allow for any runoff into state waters or other drainage conveyance systems, including but not limited to streets, curb and

gutter, inlets, borrow ditches, open channels etc. If the land application is to agricultural land, it must not reach or have the potential to reach an agricultural ditch. Discharges to drainage conveyance systems as described above are a discharge to surface water that require a discharge permit and are not covered under this guidance document.

- Land application must be conducted at a rate that does not allow for any ponding of the groundwater on the surface, unless the ponding is a result of implementing control measures that are designed to reduce flow velocity. If the control measures used result in ponding, the land application must be done in an area with a constructed containment, such as an excavation or bermed area with no designed outfall. The constructed containment shall prevent the discharge of the ponding water offsite as runoff.

- ❖ **Compliance with construction stormwater discharge permits:** If the discharge is located at a facility covered by a CDPS General Permit for Stormwater Discharge Associated with Construction Activities, the requirements in that permit associated with the discharge of groundwater must be complied with, including identification in the Stormwater Management Plan.
- ❖ **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 (such as hose attachments and erosion controls) may be necessary to prevent erosion.
- ❖ **Controlling pollutant potential of deposited sediment:** Control measures shall be implemented to prevent any sediment deposited during land application from being transported by stormwater runoff to surface waters or other conveyances.
- ❖ **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.
  - 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.

#### ➤ Implementation of Control Measures

Control measures should be implemented as necessary to meet the conditions above, by anyone discharging in accordance with this guidance. The following control measures have been developed by the division to help ensure that the discharge will not negatively affect water quality. Refer to the Alternative Disposal Options section for guidance where these control measures cannot be implemented.

- ❖ **Identifying potentially contaminated groundwater:** If the groundwater is located within 1 mile of a landfill, abandoned landfill, mine or mine tailing area, a Leaking Underground Storage Tank (LUST), Brownfield site, or other area of contamination, there is an increased likelihood that groundwater contamination exists. In those cases additional work is appropriate to determine if your dewatering area is in an area of contamination. The following is a list of contamination and plume resources and is helpful when determining if your dewatering area is in an area of contamination, however the list is not all inclusive and in some cases site-specific characterization of groundwater may be necessary.

CDPHE Environmental Cleanup Web Page (refer to the resources under “sites and facilities”):

<https://www.colorado.gov/pacific/cdphe/categories/services-and-information/environment/environmental-cleanup#sites>

EPA Cleanups in My Community Maps and Lists:

<https://www.epa.gov/cleanups/cleanups-my-community>

- ❖ All control measures used to meet the provisions of this guidance document must be selected, installed, implemented and maintained according to good engineering, hydrologic and pollution control practices. These control measures must be adequately designed to provide control for all potential pollutant sources associated with the discharge of uncontaminated groundwater to land.
- ❖ The discharge should be routed in such a way that it will not contact petroleum products/waste, a visible sheen must not be evident in the discharge.
- ❖ To minimize potential for creating stormwater pollution sources, control measures (such as a filter bag or similar filtration device) should be used to remove sediment/solids prior to land application.

### Alternative Disposal Options

Water that does not meet the criteria of this guidance or that cannot be discharged in a manner that meets the conditions of this guidance must be either authorized by a Colorado Discharge Permit System (CDPS) discharge permit issued by the division or disposed of through an alternative means.

The Water Quality Control Division has general permits available for discharges to surface water and/or land associated with construction dewatering, subterranean structure/foundation dewatering, and the remediation of groundwater. Obtaining coverage one of these permits will likely be the most efficient solution for discharges that do not meet the criteria and conditions of this guidance.

For discharges associated with construction projects, guidance on determining the appropriate permit and applying in included in the Application Guidance Document for these general permits, available on the division's construction sector permitting page: <https://www.colorado.gov/pacific/cdphe/wq-construction-general-permits>

Discharges from subterranean structures (basement, foundation, footer drains, etc.) are covered by the Subterranean Dewatering or Well Development general permit. The application and other information for this general permit can be found on the commerce and industry sector permitting page: <https://www.colorado.gov/pacific/cdphe/clean-water-commerce-and-industry-permitting>

For more information, contact the Water Quality Control Division's Permitting Section or Clean Water Compliance Unit, at (303) 692-3517.