STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

Laboratory Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

http://www.cdphe.state.co.us

Colorado Department of Public Health and Environment

LOW RISK DISCHARGE GUIDANCE:

DISCHARGES OF UNCONTAMINATED GROUNDWATER TO LAND

SEPTEMBER 2009

This discharge guidance has been developed in accordance with Water Quality Policy-27, Low Risk Discharges. When the provisions of this guidance are met, the Division will not actively pursue permitting or enforcement for the discharge of uncontaminated groundwater to land, unless on a case-by-case basis the Division finds that a discharge has caused 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.

The implementation of this guidance document does not constitute a water right. Questions regarding water rights should be directed to the State Engineers office at: (303)866-3581.

Discharges to land from activities regulated by one of the implementing agencies under Senate Bill 181 are not subject to this policy. This includes activities regulated by the Division of Reclamation and Mining Safety of the Department of Natural Resources, the State Engineer of the Department of Natural Resources, the Oil and Gas Conservation Commission of the Department of Natural Resources, the Hazardous Materials and Waste Management Division of the Department of Public Health and Environment, and the Division of Oil and Public Safety of the Department of Labor and Employment. Types of activities that are covered by these agencies include discharges to land from well development pump tests, natural resource exploration and production, and groundwater remediation.

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.

According to the memorandum Water Quality Control Division and Hazardous Materials and Waste Management Division Solid Waste Program Coordination on Regulation of Groundwater Impacts Under Senate Bill- 181, the Hazardous Materials and Waste Management Division Solid Waste Program takes authority for and regulates facilities that are discharging waste waters into surface impoundments or other engineered units, even those designed for purposeful seepage. An impoundment means a facility or part of a facility that is a natural topographic depression, excavation, pit, pond, lagoon, trench, or diked area. An impoundment, which may be lined with earthen material or synthetic material, is designed for storage, treatment or final disposal of solid waste. Examples of impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons. This guidance is not intended to cover discharges from surface impoundments.

The discharge of contaminated groundwater in exceedance of a groundwater standard is not authorized under this guidance document and requires coverage under a Groundwater Remediation General Permit. See Regulation 41 for

the Basic Standards for Groundwater. A rule of thumb used by the Division is that if the dewatering project 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, the potential for 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.
    - Brownfield Sites: http://www.epa.gov/brownfields/
    - Oil and Public Safety COSTIS database (Storage Tank Database) for Leaking Underground Storage Tanks. Search for events by city, county, or zip code: http://costis.cdle.state.co.us/home.asp
    - Voluntary Clean-Up Sites: http://emaps.dphe.state.co.us/hmtrackreporter/VCRAFront.aspx

The following procedures must be followed for discharges to land:

The source of the discharge must solely be uncontaminated groundwater or uncontaminated groundwater combined with stormwater and cannot contain pollutants in concentrations that exceed water quality standards for groundwater.

No chemicals may be added.

If the discharge is from vaults or similar structures, the discharge cannot be contaminated. Potential sources of contamination include process materials used, stored, or conveyed in the structures, or introduced surface water runoff from outside environments that may contain oil, grease, and corrosives.

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 best management practices that are designed to reduce velocity flow. If the best management practices 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 outfall. The constructed containment shall prevent the discharge of the ponding water offsite as runoff.

A visible sheen must not be evident in the discharge.

The discharge must be applied a sufficient distance away from building foundations or other areas that may be damaged from ground settling or swelling.

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 discharges of groundwater to the ground must be complied with, including identification in the Stormwater Management Plan.

Best Management Practices shall be implemented to prevent any sediment deposited during land application from being transported by stormwater runoff to surface waters or other conveyances.

BMPs for Discharges to Land (discharge is to the ground through the soil or a rock pit, where the discharge will not flow overland directly into a surface water, storm sewer or similar conveyance).

All Best Management Practices (BMPs) 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 BMPs 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 cause erosion to land surface. Energy dissipation devices designed to protect downstream areas from erosion by reducing the velocity of flow (such as hose attachments, sediment and erosion controls), may be necessary to prevent erosion.When discharging, allow the water to drain slowly so that it soaks into the ground, without running off of the property, or causing flooding issues.

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 stormwater pollution, Best Management Practices (such as a filter bag or similar filtration device) should be used to remove sediment/solids prior to land application.

Contact Information:

Questions regarding this action should be forwarded to Maura McGovern: maura.mcgovern@state.co.us