

Section 3.2.8 RISDISM Guidance for Infiltration at Auto Fueling Facilities

Guidance regarding RISDISM Manual page 3-7 “Stormwater runoff from a LUHPPL (classified in Table 3-2) shall not be recharged to groundwater, unless it has been adequately treated for the pollutant of concern as determined by the approving agency.”

Department Findings:

- The 2010 RI Stormwater Manual identifies auto fueling as a land use of higher potential pollutant load (LUHPPL).
- The LUHPPL portion of an auto fueling facility is the fuel dispensing area and the tank filling area (tank traffic mat). Stormwater from other areas of the facility (e.g., roof runoff, parking for a retail outlet, etc.) can be recharged to groundwater and managed in accordance with the Stormwater Manual.
- The groundwater quality concerns at auto fueling facilities (LUHPPL area) are:
 - The long-term potential degradation of groundwater quality due to small losses of fuel; and
 - The potential loss of significant volumes of fuel from spills at the dispensing area and underground storage tank filling areas that flow to the stormwater system.
- Technology at auto fueling facilities has significantly advanced to prevent and mitigate spills at different points in the fuel storage and delivery system. However, the risk of contamination from a spill remains.
- The potential for spills at any facility is daily and numerous from each auto fill-up to each fuel delivery.
- DEM requires that all stormwater management systems at LUHPPL facilities (existing and proposed) must be in compliance with the 2010 Stormwater Manual.

Policy: Infiltration of LUHPPL area stormwater is allowed at auto fueling facilities provided the conditions below are followed.

There must be no drinking water wells (public or private) within 1000 feet of the infiltration facility, and all properties within 1000 feet must be capable of being served by a public water system. If this condition can not be met, other approved BMPs that do not infiltrate must be used.

If this condition is met, stormwater infiltration from the LUHPPL area must comply with the following:

- Pretreatment using either a multi-chamber oil/water separator or acceptable proprietary device (minimum oil storage capacity of 500 gallons) that is preceded by at least one catch basin;
- Following pretreatment: treatment using a filtering infiltration BMP (excluding a sand filter) or a dry swale (these BMPs do not have to be lined). Treatment using one of the infiltration BMPs in Section 5.3 of the Stormwater Manual will not be acceptable because these BMPs will not provide acceptable removal of the pollutants of concern.

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- Provide a roof over the fuel dispensing area with roof drainage directed away from the dispensing area.
- Prevent stormwater from running in and through the fuel dispensing and tank filling areas by elevating these areas.
- To address the threat of spills at the auto fueling facilities that may enter the stormwater infiltration system, comply with the spill management requirements below:
 - Provide grooved concrete for the perimeter of the pad pavement around the dispensing area. These “positive limiting barriers” are used to contain small spills; and
 - Include a Spill Response Plan in the stormwater Operation and Maintenance Plan.

Redevelopment Sites -- On a site that meets the criteria to apply the redevelopment standard of the Stormwater Manual, stormwater from the LUHPPL area can be directed off-site as part of the 50% of the stormwater that does not need to be treated provided that the stormwater flowing off-site enters a stormwater collection system that does not include an infiltrating BMP that would potentially adversely impact groundwater downgradient of the auto fueling facility.

Existing and Former Auto Fueling Facilities

Applicability: sites of existing or former auto fueling facilities. The site may be undergoing facility upgrade or it may be a facility recently discovered to have an unpermitted LUHPPL stormwater discharge.

Step 1) Investigate how stormwater was managed in the past on the site. If there is or was infiltration of stormwater from the LUHPPL area that was not permitted by DEM, the DEM Groundwater Discharge Program must be notified. The infiltration system may be required to be closed in accordance with the DEM Groundwater Discharge Rules. It must be shown to DEM’s satisfaction that the infiltration has not caused an adverse impact to groundwater quality. Soil samples (and potentially groundwater samples) may be required as part of this determination.

Step 2) Once it has been determined with DEM’s approval that the existing or former system has not impacted groundwater quality, plans can be reviewed for future stormwater management at the facility in accordance with this Guidance.