

Copperstate Farms LLC
Aquifer Protection Permit No. P-512893
PLACE ID 17541, LTF 75647

I. Introduction:

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an Aquifer Protection Permit for the subject facility that covers the post-closure period unless suspended or revoked pursuant to A.A.C. R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at the Point of Compliance; and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). The purpose of BADCT is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., local subsurface geology) to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer, or to keep pollutants from reaching the aquifer.

II. Facility Location:

650 N. Industrial Way
Snowflake, Arizona 85937

III. Facility Description:

Copperstate Farms LLC is a cannabis growing operation located on two parcels (202-05-064 and 202-05-032) in rural Navajo County. The property was used by the previous owners as a tomato and cucumber growing operation. The site consists of a support facilities which include a north greenhouse, a south greenhouse, process tanks, collection sumps, groundwater storage tanks, and an equipment wash area located on Parcel No. 202-05-064. There are groundwater wells, an irrigation drainage conveyance, and retention pond located on Parcel No. 202-05-032.

A site investigation was conducted and demonstrated that clean closure was achieved for the unauthorized discharge of PCE to the indoor sump, irrigation drainage conveyance and retention pond. Nitrate was detected in the irrigation drainage conveyance and pond above aquifer water quality standards; however, since the nitrate source is the irrigation drainage, no further investigation of nitrate contamination in soils or groundwater was conducted at the conveyance and pond. Nitrate was detected in the indoor sump at a concentration of 140 mg/L; however, no additional sampling of soil or groundwater was conducted at the indoor sump. According to the permittee, the liquids in the indoor sump would have had the possibility to reach groundwater. Due to the sump pump removing liquid from the indoor sump to the retention pond, the hydraulic head within the indoor sump was kept very low and the impact to the aquifer at the Copperstate Farms facility is likely due to the agriculture surrounding the site and discharge to the pond, which are exempt. The indoor sump will be abandoned and closed and will not be used in the future.

The current greenhouse operation discharges irrigation drainage to the retention pond up to 30,000 gallons per day (gpd). At full capacity, the discharge is estimated at 105,000 gpd. The discharge of irrigation drainage to the retention pond is exempt from regulation pursuant to A.R.S. §49-250.B.23.c.

IV. Regulatory Status:

This application is in response to the ADEQ Determination of Applicability (DOA) letter dated November 26, 2018.

V. Best Available Demonstrated Control Technology (BADCT):

The indoor sump shall be abandoned by placing a minimum of two (2) feet of concrete at the bottom of the sump, backfilling with aggregate base course material to a minimum six inches from grade, and constructing a rebar-reinforced concrete cap flush with the surface. The cap shall remain in place indefinitely to prevent any future liquids from entering the indoor sump. Winstead Consulting LLC will oversee, document, and photograph the decommissioning of the indoor sump and provide a letter report to document completion of the work.

VI. Compliance with Aquifer Water Quality Standards (AWQS):

To ensure that site operations do not result in violation of Aquifer Water Quality Standards the indoor sump shall be abandoned and capped. Post closure inspections and maintenance shall be performed as required in Section 4.2, Table 1 of the permit.