

## **Objective Criteria Review Summary - Confluence DJ LLC, Willow, Form 2A 401959539**

This summary explains how COGCC staff conducted its technical review of the Confluence DJ LLC, Willow, Form 2A, doc no 401959539 within the context of SB 19-181 and for the required Objective Criteria. This Form 2A permit application met the following Objective Criteria

1. (Criteria #1) The proposed Location lies within 1,500 feet of a Building Unit or High Occupancy Building, which include Urban Mitigation Area (UMA) and Large UMA Facility (LUMAF) location. (the closest Building Unit is an estimated 1,050 feet from the Oil and Gas Location);
2. (Criteria #5.c) The proposed Location lies within a Sensitive Area for water resources (adjacent to a floodplain and within an area of potential shallow groundwater).
3. (Criteria #8) Oil and Gas Location with storage of hydrocarbon or produced liquid in more than 18 tanks or an excess of 5,200 barrels.

COGCC staff met with the Director to discuss whether the Objective Criteria were sufficiently addressed and whether the Form 2A could be approved with the proposed Best Management Practices (BMPs) and applied Conditions of Approval (COAs). The following sections provide details regarding the evaluation of each criterion.

**Criteria 1:** Oil and Gas Locations within 1,500 feet of a Building Unit or High Occupancy Building, which include Urban Mitigation Area (“UMA”) and Large UMA Facility (“LUMAF”) locations.

**Site Specific Description of Applicability of Criteria 1:** Based on the technical review and desktop evaluation, staff identified one residential Building Unit located approximately 1,050 feet to the southwest of the Oil and Gas Location, an additional residential Building Unit is approximately 1,200 feet to the west. There are no high density residential neighborhoods within 1,500 feet of the proposed location.

**Site Specific Measures to Address Criteria 1:** There are not any Building Units within 1,000 feet of the wells or production, so this is not a COGCC defined Designated Setback Location. Confluence has committed to sound walls along the south and west sides of the Location to minimize noise impacts and shield fugitive lights. Confluence will use Odor Armor, which masks and contains an enzyme to reduce odors from the Oil Based Mud as well as disposing of cuttings promptly and not stockpiling cuttings on Location. Long term odor and emissions mitigation include using an automated system for gauging tanks and metering which will eliminate the need to open tank hatches during truck loading. Vapor Recovery Units will minimize emissions from tanks and separators during production. Proppant sand dust control by using a sandbox gravity fed system, and access road construction with aggregate reduce dust. These protections for nuisance impacts will also serve to protect residents in the other proximate buildings, despite their location outside the buffer zone.

**Determination:** During the technical review process, COGCC staff requested additional information and clarification regarding Confluence's proposal and BMPs for odors, lighting, and leak detection. The information received has been added to the application materials. Confluence provided enhancements and clarifications to the proposed BMPs. Given the foregoing, the Director determined Criteria 1 was sufficiently analyzed.

**Criteria 5.c:** Oil and Gas Locations within a Sensitive Area for water resources.

**Site Specific Description of Applicability of Criteria 5.c:** The Location is in a sensitive area due to the proximity of surface water and shallow groundwater. An irrigation ditch is located 40 feet to the north of the Location. Estimated depth to groundwater is at 20 feet based on a review of the alluvial aquifer in the area and water well permit 284560 which is approximately 2,370 feet to the southwest of the Location. Water wells closer to the location are for domestic use and have been completed in the Lower Arapahoe formation, which is a confined aquifer over 100 feet below ground surface.

**Site Specific Measures to Address Criteria 5.c:** Confluence has placed BMPs on the Form 2A for protection of the irrigation ditch to the north of the Location. The BMPs include an enhanced ditch and berm system to trap and direct fluids away from the surface water. Tanks and equipment on location will be in steel-walled, lined, secondary containment with 150 percent capacity of the largest tank. The Location is inspected daily for leaks and maintenance of the location.

**Determination:** The Director determined that Criteria 5.c was sufficiently analyzed based on the application of additional BMPs, such as stormwater controls and containment that address the protection of ground and surface water resources. The BMPs were sufficient to meet the standard for protection of the sensitive environment and water resources.

**Criteria 8:** Oil and Gas Location with storage of hydrocarbon or produced liquid in more than 18 tanks or an excess of 5,200 barrels.

**Site Specific Description of Applicability of Criteria 8:** The amended Location is for a total of 13 wells, 26 oil tanks, 13 separators, 13, water tanks, emission control devices and metering.

**Site Specific Measures to Address Criteria 8:** Confluence will submit an emergency response plan as part of the WOGLA process and will coordinate with the local fire protection district as part of the emergency response plan. Daily inspections and gauging of tanks during loading operations decreases the need to open hatches on tanks. Daily inspections of the Location will help identify leaks or maintenance issues.

**Determination:** The Director determined that Criteria 8 was sufficiently analyzed based on the application.