NORTHPOINT
CONSULTING GROUP, INC.

RIVERIDGE, LLC

Noise Source Assessment and Mitigation Plan

APN: 033-271-021

Humboldt County, CA

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Contents

Objective 3
Proposed Project Overview 3
Site Description and Sensitive Receptors 3
Analysis of Existing Ambient Noise Levels 3
Noise Sources Associated with Proposed Project 5
Anticipated Noise Levels 5
Monitoring 5
Conclusion 6

Appendices:

A: Site Map

Objective

The purpose of this Noise Source Assessment and Mitigation Plan is to evaluate the potential impacts from the proposed project and describe how the project will conform with the Performance Standard set forth in Section 55.4.12.6 – Performance Standard for Noise at Cultivation Sites in the Humboldt County Ordinance No. 2599, Commercial Cannabis Land Use Ordinance (CCLUO). Evaluation of potential noise impacts included the establishment of onsite ambient and maximum noise levels, and identification of proposed project noise sources.

Proposed Project Overview

RiveRidge, LLC is proposing to permit cannabis cultivation activities in accordance with the County of Humboldt's (County) *Commercial Cannabis Land Use Ordinance* (CCLUO), aka "Ordinance 2.0". RiveRidge, LLC is proposing to permit cannabis cultivation activities in accordance with the County of Humboldt's (county) Commercial Cannabis Land Use Ordinance (CCLUO aka "2.0"). The existing operation includes 8,855 sq. ft. of mixed light cultivation. The project proposal includes expansion of cannabis cultivation, the development of cannabis support facilities for drying and curing of cannabis, distribution, non-flammable extraction, farm-based retail sales, and water storage. The applicant aims to become compliant with all local and state regulations.

Site Description and Sensitive Receptors

The Project is located at 900 Milky Way in the Piercy area (APN: 033-271-021). The southern portion of the property runs parallel to State Hwy 271, the north and east property line is approximately 250-300 feet from US Hwy 101.

The subject property has a General Plan designation of Rural Agriculture (RA) as identified by the Humboldt County General Plan and is zoned Unclassified. Land uses surrounding the parcel are comprised of Rural Agriculture. The surrounding parcels are zoned Unclassified (U).

Analysis of Existing Ambient Noise Levels

This section summarizes the data collection procedures that were taken in order to analyze the existing ambient noise levels within the project site. The *existing ambient noise level* is defined as the baseline average of sound pressure experienced in an area prior to the proposed cannabis cultivation activities. Existing ambient noise levels included natural and human-induced noise.

Three (3) Monitoring Locations were established throughout the parcel to establish noise levels at property lines (closest to sensitive receptors such as neighboring houses) and riparian/habitat areas (closest to sensitive receptors such as wildlife). Table 1 below describes the Monitoring Locations in more detail and the locations can be seen on the site map attached in Appendix A.

Table 1: Monitoring Location Details

Monitoring Location	Lat., Long.	Description & Notes	Impact Potential
#1	40.00324°, -123.78435°	In open field adjacent to oak-wooded riparian habitat on eastern property boundary, and near the	Woodland/annual grassland habitat,

		intersection of HWY 101 and HWY 271.	adjacent parcel, HWYs 101 and 271.
#2	40.00220°, -123.78533°	Along mixed-hardwood forest boundary with HWY 271 on southeast property boundary.	Mixed-hardwood woodland habitat, adjacent parcel, and HWY 271.
#3	40.00376°, -123.78719°	In mixed-hardwood forest at private driveway gated entrance, along western property boundary.	Mixed-hardwood woodland habitat, adjacent parcel, and Milkyway Loop.fr

Figure 1: Noise meter locations on 033-271-021 at Riveridge, LLC.

The existing sound pressure levels were measured in decibels using a type 2 digital sound meter which utilizes an A-weighted filter network (dB(A)). The digital sound meter was mounted to a tripod, allowing it to be positioned approximately 2-feet above the ground to minimize ground noise and maximize unobstructed sound readings. Measurements were taken on February 10th, 2022. The weather conditions on the date when monitoring was conducted were clear and sunny. Measurement readings of sound pressure, in dBA, were taken at 2-second intervals at all Monitoring Locations for 24-hours. The data was then analyzed to determine the existing background average and maximum ambient noise levels. The results from this analysis are presented in Table 2.

Table 2: Onsite Noise Analysis Results

Monitoring Location	Average Decibel Reading (dBA)	Max Noise Level Measured (dBA)
#1	46.1	73.8
#2	40.5	72.8
#3	44.1	75.8
Average	43.6	74.1

In general, the existing average noise levels range from approximately 40 dBA to 46 dBA. Maximum ambient noise levels at all noise monitoring locations were between 73 and 76 dBA, with an average maximum of 74.1 dBA.

Noise Sources Associated with Proposed Project

Noise sources associated with the proposed project at the upper site will be primarily air circulation from the fans in the proposed mixed light cultivation greenhouses. The proposed cultivation greenhouses will each utilize up to two (2) 24" Variable Speen SnapFans, or similar. All equipment specifications have been provided by the applicant. See Table 4, Appendices B and C.

Table 4: Noise-Producing Cultivation Equipment Specifications

Type of Equipment	Brand*	Sound Pressure (dBA)
24" SnapFan	SnapFan	48 dBA at 6 m distance

**Specific equipment brands subject to change*

Noise sources associated with lower site expansion include employee activity, light traffic, and onsite processing in the proposed commercial building. However, these activities are not anticipated to increase levels greater than 3 dBA at the property line on average due to the proximity Hwy 101 and Hwy 271. All cannabis related activities at the lower site will be performed in the commercial building.

Anticipated Noise Levels

The proposed noise attenuation measures to ensure the daily operations comply with the CCLUO 2.0 will consist of manual controls and monitoring. Each of the SnapFan 24" AC Variable Speed fans will be equipped with a variable speed controller, allowing for precise adjustment of the fan speed (fan speed directly correlates to fan sound pressure). Measuring noise levels will continues a regular basis following the proposed activities. If the noise levels are measured to be higher than the anticipated levels, the fans will be adjusted, reducing the noise output from the fans, and reducing the noise impact at the subject monitoring location.

Additionally, cannabis-related activities would be contained within enclosed greenhouse structures, which would muffle the projected sound pressure of proposed activities. Noise from the proposed cultivation activities is not anticipated to result in an increase of more than three (3) decibels of continuous noise above existing ambient noise levels, which range from 40.5 to 46.1 dBA. Furthermore, based on equipment specifications, the noise levels at all Monitoring Locations are anticipated to be less than 50 dBA.

Location	Average Decibel Reading at Location (dBA)	Closest Proposed Fan to Location (R_2) (ft)	R_2 (m)	Calculated Difference in Sound Pressure (dL)	Anticipated Noise Level with Proposed Fan (L_{P2})
#1	46.1	32	9.8	4.2	43.8
#2	40.5	115	35.1	15.3	32.7
#3	44.1	230	70.1	21.4	26.6

Monitoring

Measuring of noise levels will continue on a regular basis following the proposed activities. If the noise levels are measured to be higher than the anticipated levels, further measures will be implemented to reduce the noise output from the project's activity.

Off-site noise includes, but is not limited to, neighboring or adjacent resident activity, nearby vehicle traffic and all other activities not related to the proposed project or parcel. If the increase from off-site noise sources occurs, it is not anticipated to be significant.

Conclusion

RiveRidge, LLC will be compliant with the CCLUO 2.0 noise level limitations with the mitigations set forth in this report. Following the recommendations set forth in this report, the proposed noise sources from the project are not expected to increase onsite ambient noise levels and compliance with Performance Standard 55.4.12.6 will be met. Noise from the proposed cultivation activities are not anticipated to result in an increase of more than three (3) decibels of continuous noise above existing ambient noise levels. Furthermore, the noise levels at all Monitoring Locations are anticipated to be less than 50 dBA.

In order to ensure that cultivation activities comply with the Performance Standards, future noise measurements will be taken at the same monitoring locations to ensure no disturbance is occurring to habitat or to neighboring residences.