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September 23, 2020

Mr. Eric Gilliland
Purple Wine + Spirits
9119 Graton Road
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Via email: Eric Gilliland (egilliland@purplebrands.com)

Cc: John Capron (jcapron@purplebrands.com)
twallis@twallislaw.com

**Subject: Response to Comments
Purple Wine+Spirits Environmental Noise Assessment & Addendum Reports**

Dear Mr. Gilliland

Illingworth& Rodkin, Inc. (I&R) has the following responses to the comments on our Environmental Noise Assessment and Addendum reports which examines the noise impacts resulting from operational changes, consolidation at the existing Purple Wine + Spirits (PW+S) facility in Graton California. The comments received and our responses are presented in the following letter:

Comment 1:

The sound study simply extrapolated that residences that would be farther away from already utilized noise measurement points would have less decibel increase. Because they measured at the property line of Orrin's closest structure to the facility, your consultants concluded that since the second stories are technically farther from the plant, then the impact would be less. They have completely dismissed the impact of elevation. They have done the same with Dyer and Oak Grove.

Response 1:

First - The actual measurements in the report were made at selected points to establish ambient noise conditions. The "noise measurement points" reviewer seems to be referring to are actually points, or areas, where we analyzed potential project noise impacts (i.e. the expected sound levels produced by the project).

Second - In terms of our analysis (not measurement) of noise at the Green Valley Village homes (and also at the Dyer Avenue homes and Oak Grove Elementary) our conclusion that sound levels from PW+S activities at the actual facades of the buildings would be lower than those at the Bowen Street property line is valid as sound naturally attenuates with distance following the divergence(inverse square law) of acoustics, whereby sound from fixed sources in an open environment is reduced with distance due to the natural spreading out of sound waves and

corresponding reduction of sound pressure levels. We also considered sound reflections off of project buildings and structures. However, because these surfaces are varied and not monolithic, there would be some loss of sound energy with each reflection, with the end effect being that any reflected sound would not increase the overall sound levels predicted using sound divergence model. This method of analysis follows basic principles of acoustics and is a widely accepted way to model sound propagation in an open-air environment and its use has passed numerous peer and regulatory agency reviews.

Third - It is also incorrect to say that we dismissed the impact of elevation, or potential for noise levels to be higher at the upper floors of these homes. Our analysis of noise levels at all facades of the considered the noise barrier effect of the intervening two story structures at the eastern perimeter of the PW+S site. These buildings will act as a barrier to noise occurring to the west in the central areas of the PW+S site and effectively block most noise from Crush or other activities occurring in on the PW+S site from reaching the first or second floor facades of the nearest Green Valley Village homes.

Comment 2:

They never took new measurements for the crush but added new extrapolations for the 3 added aerators. I don't even agree with those conclusions, because the aerator sound is totally dependent on weather conditions such as wind direction and inversion layers.

Response 2:

New crush noise measurements were not possible, since crush was not occurring. Additionally, crush noise measurements were not needed as noise levels from crush activities have been measured and well documented at other wineries. These measurements are sufficient and scalable for use in this analysis.

Our methodology in extrapolating noise increases with the addition of aerators to the pond follows the accepted acoustical practice of sound energy addition and atmospheric attenuation. In addition, our measurements were made, and the extrapolated noise increases calculated, under worst case conditions with all aerators running continuously. We understand that under most conditions the all aerators do not run at the same time.

The commenter takes issue with our analysis because of the contention that, “aerator sound is totally dependent on weather conditions such as wind direction and inversion layers.”.

The commenter also contends that there are amplification effects that occur when sound carries in wind currents, and/or reflects off of atmospheric inversion layers. We agree that the transfer of sound in the open environment can be influenced by weather conditions such as wind direction and inversion layers. While we would acknowledge that there may be some atmospheric reflected sound from the project source which may arrive out of phase with direct sounds, the effect of this reflected sound would not increase the overall sound levels calculated using the predicted using sound divergence model.

As further explanation of this, we submit that sound transmission near the earth's surface involves essentially three types of sound paths, shown conceptually in Figure 1. The direct path (path 1) is the normal path by which most of the sound energy travels. There is actually no single straight-line path from source to receiver. Instead, there are a multitude of paths (shown by the "bundle" of lines) that make up path and converge to the receiver, especially for long distances. Some of the

ground-reflected sound (path 2) may arrive at the receiver either in or out of phase (or at various other phase angles) with the direct sound (path 1) and can either increase or decrease the received sound level. The ground surface may be hard or soft (reflective or absorbent), and this also effects the phase and magnitude of the reflected path. Paths 1 and 2 usually determine the sound levels at the receiver, but a solid barrier such as intervening terrain or buildings can intercept and practically eliminate these paths. In such situations, Path 3, which is made up of relatively low-level sound that is refracted (bent) or scattered back to earth by numerous small patches of inhomogeneous air of varying temperature, speed, direction, density, etc. may become significant. However, field studies show that when paths 1 and 2 are virtually eliminated the remaining reflected (path 3) sound levels that are up to 20 to 25 dB¹ below the path 1 and 2 sound levels),

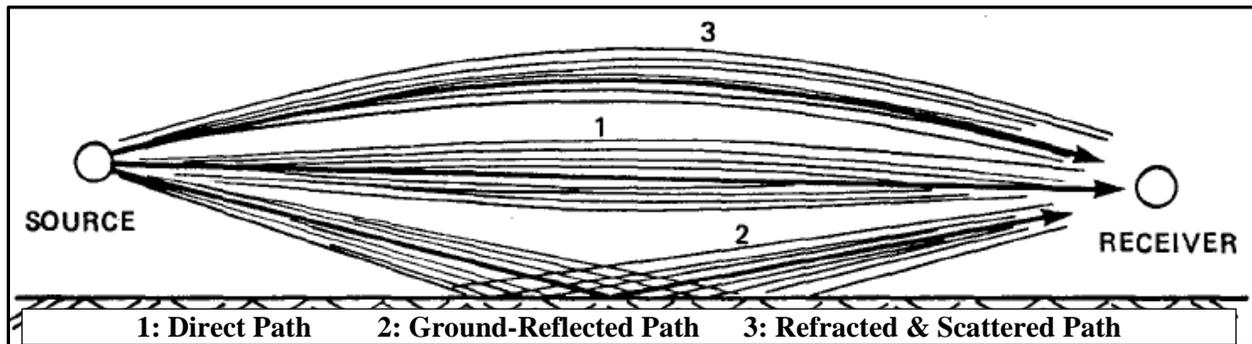


Figure 1: Near the earth sound propagation pathways

Comment 3:

I would take issue at the locations of the original noise readings. I misunderstood the location of one reading as the house to the west of the plant, which I have now corrected. The north location is a plastics plant, not a residence. Really measurements should have been taken to the south on Railroad Street which would likely experience the sound of crush echoing through the corridor behind Atelier, where your crush pad is open at the south end. I do believe that the upper parts of town will be even more impacted. As we have explained, having lived here 33 years through some pretty noisy activities at your location, Graton is an amphitheater and sound travels up.

Response 3:

The measurement locations were chosen to quantify the existing noise levels near the property lines of the closest existing and potential noise sensitive (residential) uses to the project. These measurement locations are shown in Figure 2 on Page 3 of our report. We did not measure or analyze noise levels at the Plastics plant north of the site (identified as an “Existing Industrial Use” in our report). The residences on Railroad Street to the south are significantly further from the project site than those to the north, west and east at which we measured.

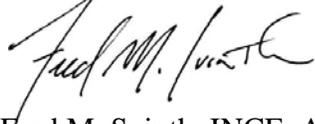
We acknowledge that there are partially open sound paths to the south and north which would allow unblocked sound to travel in these directions, however homes in these directions are 500 to 700 feet from the crush pad area, far enough that even unblocked noise would received sufficient distance (sound divergence) attenuation to be well below County noise standards. As to the sound echoing off of building, and Graton being an amphitheater with sound traveling all over town, I would refer to the explanation of the three pathways of sound transfer above and the considerations

¹ Each 10 dB reduction is typically perceived as a halving of the original sound level.

that there will be a loss of sound energy with each reflection. Considering these effects, it may be possible for sound from PW+S operations to be heard in more distant portions of Graton. However, though PW+S operation noise may at time be audible, that audibility is not the standard upon which winery activities are judged in Sonoma County. Based on our analysis the sound levels produced by the PW+S operations will comply with the County Noise Standards.

This concludes Illingworth& Rodkin's responses to the comments on our Environmental Noise Assessment and Addendum reports concerning the noise impacts resulting from operational changes, consolidation at the existing Purple Wine + Spirits (PW+S) facility in Graton California. Please do not hesitate to call with any questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred M. Svinth". The signature is fluid and cursive, written over a light blue horizontal line.

Fred M. Svinth, INCE, Assoc., AIA
Senior Consultant, Principal
Illingworth & Rodkin, Inc.