September 13, 2024

Mr. David Mercer
Crosscheck Services LLC
P.O. Box 3713
Olympic Valley, CA 96146
djcmercer@hotmail.com

Subject: **Ambient Noise Monitoring Methodology – Alpenglow Timber Use Permit – Nevada County, California**

Dear Mr. Mercer:

The following responses are intended to provide an explanation of how noise monitoring locations for the project ambient noise level survey were selected and why they adequately represent the existing noise level exposure at sensitive receptors in the project vicinity.

The purpose of conducting ambient noise level monitoring is to quantify the existing levels of noise exposure at the sensitive receptors which will be subject to the greatest level of noise exposure from the proposed project. The existing sensitive receptors which are nearest to the proposed project are the single-family residences located along Klondike Flat Road north of the proposed project site.

At these locations, the existing ambient noise environment is primarily defined by traffic noise emanating from Klondike Flat Road and to a lesser extent by SR 89. To quantify the noise exposure at these residences, noise monitors were placed at varying distances from the centerline of Klondike Flat road. LT-1 was located 50 feet from the centerline of Klondike Flat Road and LT-2 was located approximately 120 feet from the centerline of Klondike Flat Road. These locations were chosen to represent the ambient noise levels experienced by the existing sensitive receptors in the project area without having to access private properties. Using representative surrogate sites is a common industry practice. The results of the ambient noise monitoring survey are reproduced below:

Location	Date	L_{dn}	Daytime L_{eq}	Daytime L_{50}	Daytime L_{max}	Nighttime L_{eq}	Nighttime L_{50}	Nighttime L_{max}
LT-1: Northwestern Project Boundary	6/13/22 to 6/20/22 (Average)	50	48	40	67	42	34	56
LT-2: Northeastern Project Boundary	6/13/22 to 6/20/22 (Average)	51	50	44	66	42	36	57

Notes:

- *All values shown in dBA*
- *Daytime hours: 7:00 a.m. to 10:00 p.m.*
- *Nighttime Hours: 10:00 p.m. to 7:00 a.m.*
- *Source : Saxelby Acoustics, 2022*

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The long-term noise measurements conducted at sites LT-1 and LT-2 included a full 7-days (168 hours) worth of data at each location. This duration is sufficient to capture typical noise exposure. While some hours included elevated maximum (L_{max}) noise levels, these existing L_{max} values are part of the existing conditions experienced by residents in the project vicinity and were primarily during daytime (7:00 a.m. to 7:00 p.m.) hours. Based on our observations, these maximum values at LT-1 were the result of existing vehicular traffic on Klondike Road.

Please let me know if you have any questions or comments on our analysis.

Sincerely,

Saxelby Acoustics

Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering

July 17, 2024

Mr. David Mercer
Crosscheck Services LLC
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djcmercer@hotmail.com

Subject: **Response to Noise Study Comments – Alpenglow Timber Use Permit – Nevada County, California**

Dear Mr. Mercer:

The following responses are intended to address the June 24, 2024, comment letter which you provided to use regarding the Environmental Noise Study[1] that we prepared for the above-referenced project. The referenced comment letter is included as **Attachment 1** for this document.

Response to Comment 1

The commentor notes that maximum noise levels occasionally exceeded 75 dBA L_{max} at the long-term noise measurement sites and may have been polluted by some unknown noise source. The long-term noise measurements conducted at sites LT-1 and LT-2 included a full 7-days (168 hours) worth of data at each location. While some hours included elevated maximum (L_{max}) noise levels, these existing L_{max} values are part of the existing conditions experienced by residents in the project vicinity and were primarily during daytime (7:00 a.m. to 7:00 p.m.) hours. Based on our observations these maximum values at LT-1 were the result of existing vehicular traffic on Klondike Road, none of which occurred during evening (7:00 p.m. to 10:00 p.m.) hours. For our assessment of increased ambient noise levels, the L_{dn} and L_{eq} noise descriptor were used. These are long term averages which are less influenced by short term peaks. Additionally, because these elevated L_{max} values did not occur during evening hours, our assessment of increased ambient noise levels during evening hours is conservative (see discussion below).

Response to Comment 2

The commenter identified several discrepancies in the traffic calculation tables. Within Appendix C, the values listed under ADT erroneously showed values for peak hour turning movements. The traffic calculation tables were revised to reflect ADT values and updated with the most recent available ADT counts for SR 89. The revised **Appendix C** of the report is attached. The updated traffic analysis results are listed in the table below, which corresponds to **Table 3** of the Saxelby Acoustics environmental noise analysis issued November 14, 2023:

[1] *Mercer Sawmill Environmental Noise Study.* Saxelby Acoustics. November 14, 2023.

Road	Segment	Existing (L_{dn} dBA)	Existing + Project (L_{dn} dBA)	Change (L_{dn} dBA)
SR 89	North of Klondike Flat Rd	58.8	58.9	0.1
SR 89	South of Klondike Flat Rd	60.5	60.8	0.3
Klondike Flat Rd	West of SR 89	51.9	55.5	3.6

As shown in the table, the traffic noise increases along Klondike Flat Road do not exceed the +5.0 dBA L_{eq} increase criterion for ambient noise environments less than 60 dBA established by FICON. Therefore, increased noise levels due to the project traffic would be considered less than significant.

Additionally, the commenter noted that averaging, particularly daily averaging, of traffic does not fully disclose the impact of project-generated traffic. However, analysis of transportation in terms of the daily average (L_{dn}) is most appropriate as the County's standards for transportation sources are provided in terms of the daily average.

Although the Day/Night average is the most applicable standard, Saxelby Acoustics also prepared an assessment of peak hour traffic noise level increases to address the comment. The following table represents the change to existing PM peak hour noise levels due to project traffic:

Road	Segment	Existing (L_{eq} dBA)	Existing + Project (L_{eq} dBA)	Change (L_{eq} dBA)
Klondike Flat Rd	West of SR 89	38.2	42.1	3.9

As shown in the table, the peak hour increase in traffic noise levels along Klondike Flat Road does not exceed the +5.0 dBA L_{eq} increase criterion for ambient noise environments less than 60 dBA established by FICON. Therefore, increased noise levels due to the project traffic would be considered less than significant.

Response to Comment 3(A)

The commenter states that it is unclear whether the project structure was modeled with an open-door scenario. Saxelby Acoustics modeled the project with open bay doors and ventilation louvers as presented in the 3D rendering of the project building. The planar structure within the main structure was modeled with doors closed. The commenter was correct in stating that these assumptions were not presented in the report.

It should be noted that modeling of the proposed structures is conservative as insulation was not taken into account during modeling. At the time of the study, an insulation had not been selected, so the structure walls were modeled as thin sheet metal only. The applicant has since indicated that the project will utilize 4"-6" insulation, which would significantly improve sound insulation of the project structure.

Response to Comment 3(B)

The commenter cites the Nevada County General Plan Noise Element's provision that the County reserves the right to lower the noise level standard if at least one of the following conditions is true:

1. Unique characteristics of the noise source:
   (a) The noise contains a very high or low frequency, is of a pure tone (a steady, audible tone such as a whine, screech, or hum), or contains a wide divergence in frequency spectra between the noise source and ambient level.
   (b) The noise is impulsive in nature (such as hammering, riveting, or explosions), or contains music or speech.
   (c) The noise source is of a long duration.
2. Unique characteristics of the noise receptor when the ambient noise level is determined to be 5 dBA or more below the Policy 9.1 standard for those projects requiring a General Plan amendment, rezoning, and/or conditional us permit. In such instances, the new standard shall not exceed 10 dBA above the ambient or the Policy 9.1 standard, whichever is more restrictive.

Noise from the proposed sawmill could be considered a long-term noise source. Therefore, the County could consider application of a lower noise level standard. However, if the project were to be assessed against lower standards, the lowest possible standard that may be imposed would be not less than current ambient noise levels. The daytime average noise levels in the vicinity of the project site were measured to be 48-50 dBA L_{eq} as measured at locations LT-1 and LT-2. The average evening noise levels were measured to be 40-45 dBA L_{eq} as measured at locations LT-1 and LT-2. Based on these ambient noise levels, the County could adjust the standards down to 50 dBA L_{eq} during the daytime and 45 dBA L_{eq} during the evening. However, the project is predicted to generate a maximum noise level of 43 dBA L_{eq} during daytime hours and 39 dBA L_{eq} during evening hours at the nearest residence. Therefore, the project would adhere to the standards, even if they were adjusted per the General Plan provision.

Response to Comment 4

The commenter indicates that project operational noise levels were not assessed for significant increases against existing ambient noise levels in the report. This analysis for daytime and evening hours has been provided below:

Receptor	Site	Existing Daytime Ambient (dBA L_{eq})	Daytime Project Noise (dBA L_{eq})	Sum (dBA L_{eq})	Increase (dBA L_{eq})	Threshold (dBA L_{eq})	Significant?
1	LT-1	48	43	49.2	1.2	5.0	No
2	LT-1	48	43	49.2	1.2	5.0	No
3	LT-2	50	39	50.3	0.3	5.0	No
4	LT-2	50	39	50.3	0.3	5.0	No

Receptor	Site	Existing Evening Ambient (dBA L_{eq})	Evening Project Noise (dBA L_{eq})	Sum (dBA L_{eq})	Increase (dBA L_{eq})	Threshold (dBA L_{eq})	Significant?
1	LT-1	40	39	42.5	2.5	5.0	No
2	LT-1	40	38	42.1	2.1	5.0	No
3	LT-2	45	33	45.3	0.3	5.0	No
4	LT-2	45	33	45.3	0.3	5.0	No

As shown in the above tables, the project is not predicted to cause a significant increase to the ambient noise environment at the existing sensitive receptors.

Please let me know if you have any questions or comments on our analysis.

Sincerely,

Saxelby Acoustics

Luke Saxelby, INCE Bd. Cert.
Principal Consultant
Board Certified, Institute of Noise Control Engineering

Appendix C: Traffic Noise Calculation Inputs and Results

Appendix C-1
FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220601
Description: Mercer Sawmill Traffic - Existing
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	SR 89	North of Klondike Flat Rd	1,850	90	0	10	2.9%	9.8%	55	110	0	92	42	20	58.8
2	SR 89	South of Klondike Flat Rd	1,850	90	0	10	2.9%	9.8%	55	85	0	92	42	20	60.5
3	Klondike Flat Rd	West of SR 89	190	85	0	15	1.0%	11.6%	25	50	0	14	7	3	51.9

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Appendix C-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 220601
Description: Mercer Sawmill Traffic - Existing Plus Project
Ldn/CNEL: Ldn
Hard/Soft: Soft

Segment	Roadway	Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset 60 dBA	65 dBA	70 dBA	Level, dBA
1	SR 89	North of Klondike Flat Rd	1,870	90	0	10	2.9%	10.2%	55	110	0	94	43	20	58.9
2	SR 89	South of Klondike Flat Rd	1,891	90	0	10	2.8%	10.7%	55	85	0	96	44	21	60.8
3	Klondike Flat Rd	West of SR 89	251	85	0	15	1.0%	20.9%	25	50	0	25	12	5	55.5

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Attachment 1: Peer Review Comment Letter

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M E M O

Date: June 24, 2024

To: Mike Geary
friendsofprossertruckee@outlook.com

From: Michael S. Thill
Illingworth & Rodkin, Inc.

SUBJECT: Alpenglow Timber Use Permit, Nevada County, California – Peer Review Comments - Noise

This memo presents Illingworth & Rodkin, Inc.'s (I&R) peer review of the Initial Study/Mitigated Negative Declaration (IS/MND)[1] and Environmental Noise Assessment[2] prepared for the Alpenglow Timber Use Permit in Nevada County, California. The project would allow for the construction and operation of a mixed-use development including a forestry management and material processing facility supported by a wood fired boiler and associated structures (facility), and six residential dwelling units for State-Regulated Employee Housing in three duplexes located on an approximately 124-acre subject property at 10375 Silverado Way in Truckee, California.

The documents have been reviewed for approach, accuracy, and completeness. The key issues for the peer review were to confirm that the correct significance criteria were used and that key issues have been properly evaluated. The following are our specific comments and recommendations:

Comment 1. The Environmental Noise Assessment describes the existing ambient noise environment in the project vicinity as being, "…primarily defined by traffic on Highway 89 to the east of the project site and natural sounds such as wind, birds, and insects."

Noise measurement locations selected as part of the August 2022 Environmental Noise Assessment were close to Klondike Flat Road and measured noise levels may have been skewed such that they would not accurately represent the noise levels at noise-sensitive residential areas in the project vicinity. Site LT-1 (Near Entry Gate) appears to have been approximately 30 feet from the centerline of Klondike Flat Road and immediately adjacent to the site entrance. It is likely

1 Alpenglow Timber Use Permit, May 24, 2024.
2 Saxelby Acoustics. Environmental Noise Assessment for the Mercer Sawmill Project. November 14, 2023.

that local vehicle traffic generated maximum instantaneous noise levels that regularly exceeded 75 dBA L_{max} at this location, with several events producing noise levels reaching 80 dBA L_{max}. At Site LT-2 (Eastern Project Boundary), the measurement location appears to have been approximately 110 feet south of Klondike Flat Road. Maximum instantaneous noise levels measured at this position (further from the roadway) also regularly exceeded 75 dBA L_{max}, with three events producing noise levels ranging from 80 to 92 dBA L_{max}. The sources of these high maximum instantaneous noise levels were not described or disclosed. It is unusual that maximum noise levels at a location further from the local road would have been higher, and it is reasonable to infer that some other source likely contaminated the measurement.

Recommendation – Additional noise measurements should be made to adequately describe ambient noise conditions at receptors in the area, particularly those that are northwest of the project site. The noise environment away from local roadways may be found to be substantially quieter. Sites should be selected in areas away from Klondike Flat Road to document ambient noise levels in areas not subject to such high noise events. These data should also be used as the baseline to judge the significance of permanent noise increases resulting from the project as discussed in Comment 4.

Comment 2. The existing and existing plus project traffic noise modeling inputs and results indicate that the project would result in no additional daily trips along SR 89, north of Klondike Flat Road (Existing ADT = 453, Existing Plus Project ADT = 453), one additional daily trip along SR 89, north of Klondike Flat Road (Existing ADT = 466, Existing Plus Project ADT = 467), and seven additional daily trips along Klondike Flat Road, west of SR 89 (Existing ADT = 19, Existing Plus Project ADT = 26). It is unclear how the vehicle trips disperse from the site as the seven trips along Klondike Flat Road are reduced one trip along SR 89, north of Klondike Flat Road.

In addition, the existing and existing plus project traffic noise levels modeled as part of the analysis do match the peak hour vehicle trips estimates described in the Environmental Noise Assessment (Page 9):

> ***Site Circulation****: The project is projected to generate 3 auto trips and 4 heavy truck trips in the peak hour (LSC Transportation Associates). Typical automobile movements are predicted to generate a sound exposure level (SEL) of 71 dBA SEL at 50 feet for cars and 85 dBA SEL at 50 feet for trucks. Saxelby Acoustics data. Truck deliveries would not occur during evening hours.*

Similarly, it is noted on Page 24 of the Air Quality Technical Report[3] that, "The proposed project would generate approximately 31 daily vehicle trips from employees/residences (11 miles per one-way trip, 341 vehicle miles traveled [VMT] per day)." Also, the Air Quality Technical Report states that, "Approximately eight new haul truck trips are proposed per day, which would equate to 120 VMT per day."

The traffic noise modeling inputs are not consistent and appear to be underestimated.

Recommendation – The traffic volume inputs to the noise model should be confirmed and

3 RCH Group. Air Quality Technical Report for Mercer Sawmill. November 16, 2023.

updated to include the correct number of daily project trips. Given the rural environment, it is also recommended that the noise of individual truck movements be given proper consideration as it is the maximum noise of each truck trip that would be most disturbing to residents. The averaging of this noise, particularly into a daily average, minimizes the potential effect and does not fully disclose the impact of project-generated traffic along Klondike Flat Road.

Comment 3. The assumptions used in the operational noise modeling state that the sawmill will be located inside a structure with 26-gauge aluminum walls and the planer will be located in its own structure within the same building as the sawmill. It is not clear whether or not doors to these structures would be maintained closed at all times during sawmill operations. The noise contour data do not indicate that an open door condition was modeled in SoundPLAN.

Recommendation – The SoundPLAN model should be revised to account for openings in the building that may allow additional noise to escape into the community.

Comment 3. The Nevada County General Plan Stationary Noise Limits contain a provision that allows the County to, "…provide for a more restrictive standard than shown in the Exterior Noise Limits table contained in this policy. The maximum adjustment shall be limited to be not less than the current ambient noise levels and shall not exceed the standards of this policy or as they may be further adjusted by Policy 9.1b. Imposition of a noise level adjustment shall only be considered if one or more of the following conditions are found to exist:

1. Unique characteristics of the noise source:
   (a) The noise contains a very high or low frequency, is of a pure tone (a steady, audible tone such as a whine, screech, or hum), or contains a wide divergence in frequency spectra between the noise source and ambient level.
   (b) The noise is impulsive in nature (such as hammering, riveting, or explosions), or contains music or speech.
   (c) The noise source is of a long duration.

2. Unique characteristics of the noise receptor when the ambient noise level is determined to be 5 dBA or more below the Policy 9.1 standard for those projects requiring a General Plan amendment, rezoning, and/or conditional use permit. In such instances, the new standard shall not exceed 10 dBA above the ambient or the Policy 9.1 standard, whichever is more restrictive."

Without a proper noise standard, the operation of the project would change the character of the existing ambient noise environment from traffic noise and natural sounds to sawmill operational noise.

Recommendation – A more restrictive noise standard should be used to assess project impacts because sawmill noise is typically characterized by a whine, screech, or hum. Further, these noise sources would be expected to continue over a long duration. This more restrictive standard should be established based on new noise data collected to represent noise levels at residential areas away from Klondike Road. In these areas, the ambient noise levels are expected to be low. A review of the L_{90} noise data collected at Sites LT-1 and LT2 show that noise levels during the vast majority

of the time are typically below 40 dBA.

Comment 4. With the exception of the traffic noise assessment (with noted deficiencies), the Environmental Noise Assessment does not assesses the potential noise impact of the project with respect existing noise levels. The operational noise assessment is based solely on whether the operational noise level would exceed the Nevada County daytime L_{eq} and L_{max} noise level standards. In *King and Gardiner Farms LLC. v. County of Kern* (2020) 45 Cal.App.5th 814, 893, the California Supreme Court concluded that the magnitude of the noise increase must be addressed to determine the significance of the change in noise levels and that the EIR did not include an analysis, supported by substantial evidence, explaining why the magnitude of an increase in ambient noise need not be addressed to determine the significance of the project's noise impact.

Recommendation – The Environmental Noise Assessment should be revised to assesses the potential noise impact of the project with respect existing noise levels. Per earlier comments, existing noise levels should be measured at new locations that are representative of all of the residences in the area, not just those located close to roadways serving the area. All operational noise sources should be aggregated to determine the change to existing noise levels caused by the project and mitigation measures should be required if a susbtantial permanent noise increase would occur.

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