



TRINITY COUNTY
COMMUNITY DEVELOPMENT SERVICES
BUILDING ♦ PLANNING ♦ ENVIRONMENTAL HEALTH
P.O. BOX 2819, WEAVERVILLE, CALIFORNIA 96093
PHONE (530) 623-1351 ♦ FAX (530) 623-1353

Kim Hunter, Director

MEMORANDUM #2

DATE: October 12, 2021
TO: Planning Commissioners, Planning Staff and Members of the Public
FROM: Kim Hunter, Director of Planning
SUBJECT: Agenda Item 2 –Smith Pit II Tailings Project (P-97-32) Appeal

Additional information is attached for this appeal item.

1. The first item is a letter that was provided to the Planning Department in September 2020 by Department of Fish & Wildlife staff after a site visit was conducted at the Smith Pit for the 2018 application to amend P-97-32 (CUP Amendment file P-18-011).
2. The second item is a letter from Jeffery Swanson on behalf of the appellant, Trinity Sand and Gravel received this afternoon.

Attachments:

- 1) Letter from Department of Fish and Wildlife (dated September 24, 2020)
- 2) Letter from Jeffrey Swanson (dated October 12, 2021)



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Region 1 – Northern
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Attachment
1

September 24, 2020

Kim Hunter
Director of Planning
Trinity County Planning Department
P.O. Box 2819
Weaverville, CA 96093

**Subject: Early Consultation Review Use Permit Amendment P-18-011, Smith
Pit Mine Tailings; Trinity County APN 012-120-42 and -49**

Dear Kim Hunter:

The California Department of Fish and Wildlife (Department) has reviewed the early consultation request for the above-referenced project (Project) and conducted a site visit with Trinity County staff on July 13, 2020. As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and their habitat. As a responsible agency, the Department administers the California Endangered Species Act (CESA) and other provisions of the Fish and Game Code (FGC) that conserve the State's fish and wildlife public trust resources. The Department offers the following comments and recommendations on the Project in our role as the State's trustee for fish and wildlife resources, and as a responsible agency under the California Environmental Quality Act (CEQA), California Public Resources Code §21000 et seq. The following are informal comments intended to assist the Lead Agency in making informed decisions early in the Project development and review process.

Project Description

The Project, as described in the early consultation request, is an amendment to an existing Use Permit to add a rock crusher and concrete batch plant and an amendment to the Reclamation Plan boundary to include the existing operational area of the site, approximately 4.9 additional acres of mining area. The Project is located in Junction City, Trinity County.

Project Comments and Recommendations

Use Permit and Reclamation Plan Amendment

The Use Permit Amendment includes the addition of a rock crusher, truck scale, and concrete batch plant. Currently, the rock crusher and truck scale are on-site and operational, although the original Use Permit explicitly states that "the only on-site processing permitted is the use of one (1) portable, temporary screening unit" and the Reclamation Plan states that "no rock crushing, washing, or asphalt production is

Conserving California's Wildlife Since 1870

Kim Hunter
September 24, 2020
Page 2

proposed on-site". In addition to the processing equipment, the Use Permit Amendment proposes to "receive and process cleanup material from Caltrans sites of slope failure, cleanup, and other activities." Aggregate from these materials are to be processed on-site and materials will be stored in the southeast portion of the Phase II mining area of the Project site.

Prior to the addition of a concrete batch plant to the site or the authorization to allow additional materials to be imported to the site, the Department recommends that an analysis of the impacts on biological resources from increased noise, light, glare, dust emissions, decreased water quality, and potential hazardous materials as a result of the batch plant and clean up material be included in the environmental document for this Project. Sensitive biological resources identified in the Project area that may be impacted by these additional stressors include, but are not limited to, the State and federally threatened southern Oregon/northern California Evolutionary Significant Unit (ESU) of Coho salmon (*Oncorhynchus kisutch*), the upper Klamath and Trinity Rivers ESU of chinook salmon (*O. tshawytscha*, State Candidate), northern California Distinct Population Segment steelhead (*Oncorhynchus mykiss irideus*, federally threatened, SSC), Pacific lamprey (*Entosphenus tridentatus*, SSC), foothill yellow-legged frog (*Rana boylei*, SSC), western pond turtle (*Emys marmorata*, SSC), raptors, and migratory birds.

The Use Permit required seasonal setbacks from the Trinity River where no operations were allowed within one hundred (100) feet of the Trinity River riparian corridor from September through April each year. May through August, the operator was required to observe a setback of thirty (30) feet from the riparian area. The intent of these seasonal setbacks, as described in the 1997 Reclamation Plan, was to protect instream resources during the fall and winter spawning season. When Department staff conducted a site visit with County representatives in July, imported material was stockpiled adjacent to the riparian vegetation and on top of the constructed berm and the limits to the setbacks were not flagged. In addition to mitigating noise and visual impacts of the operation, the riparian vegetation also serves as important habitat for migratory birds. The Department recommends the project proponent not disturb or remove vegetation in the process of working through these stockpiles or reclaiming the site. Tree removal or vegetation clearing should generally be conducted outside of the bird nesting season (February 1- August 31) in order to avoid 'take' as defined and prohibited by Fish and Game Code sections 86, 3503, 3503.5, 3513, and by the Federal Migratory Bird Treaty Act (16 U.S. Code 703 et seq). No additional imported material should be allowed within the designated 30-foot riparian setback. The Department recommends that existing material located within the setback be prioritized for processing and use in order to remove it from the setback as soon as possible. The Use Permit should specify a clear timeline for removing materials from the setback.

The Use Permit states: "*The permittee (operator) shall design the mine and conduct mine operations in a manner which will prevent fish entrapment*" and addresses the location and design of the haul road in order to meet this requirement. The Use Permit

Kim Hunter
September 24, 2020
Page 3

further states that the haul road crosses an active flood channel and requires the section of the haul road crossing the channel to be designed and constructed "*in a manner which does not impede the flow of flood waters in a 100 year storm event.*" It is unclear at what stage this channel is captured by flood flow or how often it becomes activated. K-rails currently placed on the western side of the haul road will impede or re-direct flow during certain flood events, should this channel capture water from the Trinity River. The Department recommends an analysis to determine at what point this flood channel becomes activated during high flow events. The analysis would help plan appropriate treatment at this location so that the haul road does not impede the flow of flood waters. Additionally, the Department recommends seasonal removal of K-rails and any other materials placed with the channel prior to October 31 of each year and that these materials not be replaced in the channel until after the threat of high flow events has passed each season, the date of which could vary annually based on Trinity Dam operations, as well as late season weather events, such as warm rain on snow events.

Current mining operations are occurring outside of the originally approved mine boundary; therefore, the Department recommends additional analysis to determine whether current mining operations create the potential for fish entrapment or are impacting the 100-year floodplain. The Reclamation Plan calls for a maximum excavation of 15 feet below grade. It is not clear what elevation this grade references. However, the Plan describes how the entire mining operation and surrounding 6-acres were flooded during the New Year's Day flood event in 1997, "*removing most of the cottonwood and alders along the bank and deposited sand and silt in the previously excavated area.*" For this reason, additional planning for the gravel mine expansion and Reclamation Plan amendment should ensure that no mining, excavation, or reclamation involves operating lower than the thalweg of the Trinity River to avoid pit capture. Additionally, the Department and National Marine Fisheries Service must be notified immediately if fish entrapment is occurring or has the potential to occur.

Foothill Yellow-Legged Frog (Rana boylei)

Foothill yellow-legged frog has been documented at the northern edge of the Project site and within the Trinity River. Mainly regarded as a stream obligate, few studies have focused on upland habitat use by foothill yellow-legged frog; however, it is likely that these frogs utilize a wide range of watershed features, including terrestrial habitat, depending on the season. One study in Tehama County found frogs rarely go beyond 12 meters from the channel during any time of the year (Bourque 2008). However, during the same study, Bourque observed a female move up a dry tributary and over a ridge to an adjacent watershed, a distance of over 7 km from her original location, although much of this was in wetted channels. Nussbaum et al. (1983) reported finding frogs 50 meters away from water under debris. Cook (2012) described frequent observations of foothill yellow-legged frogs in terrestrial locations far (16 meters to 331 meters, average distance of 71.3 meters) from natal streams and in

Kim Hunter
September 24, 2020
Page 4

urban settings, near Ukiah, Mendocino County. Based on the results from these studies, it is probable that foothill yellow-legged frog could traverse the Project site during migration, or utilize the on-site ponds during portions of their life cycle.

This species is California Species of Special Concern and impacts may be considered significant under CEQA. Avoidance and minimization measures should be included the Project's CEWA document to avoid these impacts.

Bullfrog Control

Aerial imagery of the Project site indicates that multiple areas of ponded water exist on-site. Perennial areas of ponded water create habitat conducive to American bullfrog (*Rana catesbeiana*) occurrence. The bullfrog is a non-native invasive species that is negatively impacting a wide variety of native species, including foothill yellow-legged frog and western pond turtle, both of which are documented in close proximity to the Project site. In order to minimize impacts to sensitive species from bullfrogs, the Department recommends that all perennial ponds created by mining activities on the Project site be drained annually between August 15 and October 15. This action will interrupt the bullfrog life-cycle and prevent metamorphosis, thus effectively controlling or eliminating bullfrog populations. The Department is available to assess the potential for bullfrog occupation of the Project site.

Lake or Streambed Alteration Agreement

The requirement to notify the Department for a Lake or Streambed Alteration Agreement (LSAA) prior to operating within the limits of the non-disturbance riparian setback area is addressed in the Use Permit and Reclamation Plan. No record of Notification for operating within these setbacks could be located within the past 5 years. In addition to these impacts, an LSAA may also be necessary for work associated with the construction of the flood channel crossing, work in the existing ponds on the Project site if they capture the river during high flow events, and/or if water drafting is occurring for mining operations or dust control purposes.

Water Pollution

FGC sections 5650 and 5652 prohibit water pollution and refuse disposal into waters of the state. FGC section 5650 (a)(1) specifically addresses asphalt. Because of these prohibitions, the Department recommends the removal of all asphalt materials from the floodplain during periods of high flow events or potential flooding, generally between November 1 and June 1.

California Natural Diversity Database

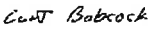
If any special-status species are found during future surveys for this Project, the Department requests that occurrence details are submitted to the California Natural Diversity Database (CNDDDB). Instructions for providing data to CNDDDB can be found

Kim Hunter
September 24, 2020
Page 5

at: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. Additionally, we request a copy of these forms be sent to the Northern Region office at: Attn: CEQA, 601 Locust Street, Redding, CA, 96001.

The Department appreciates the opportunity to provide comments early in the environmental review process and looks forward to providing further comments and guidance as the review process proceeds. If you have any questions, please contact Kristin Hubbard, Environmental Scientist, at (530) 225-2138, or by email at Kristin.Hubbard@wildlife.ca.gov.

Sincerely,

DocuSigned by:

974D273FEE784E2

Curt Babcock
Habitat Conservation Program Manager

cc: North Coast Regional Water Quality Control Board
NorthCoast@Waterboards.ca.gov

Pat Perez, Beth Hendrickson
Division of Mine Reclamation
Pat.Perez@conservation.ca.gov, Beth.Hendrickson@conservation.ca.gov

Kristin Hubbard, Adam McKannay, Kate Blanchard
California Department of Fish and Wildlife
Kristin.Hubbard@wildlife.ca.gov; Adam.McKannay@wildlife.ca.gov;
Katherine.Blanchard@wildlife.ca.gov

References

Bourque, R. 2008. Spatial ecology of an inland population of the foothill yellow-legged frog (*Rana boylei*) in Tehama County, California. Arcata, CA: Humboldt State University. 93 p. M.S. thesis.

Cook, D.G. 2012. *Rana boylei* (Foothill yellow-legged frog). Upland Movement. Herpetological Review 43(2): 325.

Nussbaum, R.A.; Brodie, E.D., Jr.; Storm, R.M. 1983. Amphibians and reptiles of the Pacific Northwest. Moscow, ID: University of Idaho Press. 332 p.

Attachment
2

SWANSON LAW OFFICE

2515 Park Marina Drive, Ste. 102
Redding, California 96001-2831
Tel. 530.225.8773/Fax 530.232.2772

Via email & U.S. Mail

October 12, 2021

Trinity County Planning Commission
c/o Trinity County Planning Department
P.O. Box 1613
Weaverville CA. 96093-2819

Re: Hearing on Use Permit #P-97-32 (Smith Pit II Tailings Project)

Dear Planning Commissioners:

I represent Trinity Sand & Gravel ("Trinity S&G"), owner and operator of the gravel mining operation known as the Smith Pit II Tailings Project (the "Project"), which operates under Use Permit #P-97-32. The purpose of this letter is to request that the Commission modify the Use Permit and Reclamation Plan for the Project to (1) clarify ambiguities in the Permit, (2) ensure Permit compliance and minimize conflict with the surrounding neighborhood, (3) ensure slide material can be properly processed and removed, and (4) increase the Reclamation Bond to ensure the property is returned to a condition that is consistent with the County's requirements for reclaimed mining sites. This would include the following specific changes:

1. No truck traffic to or from the Project site prior to 7 a.m.
2. No truck traffic to or from the Project site during the morning and afternoon periods when children are coming to or leaving school (one half hour prior to and fifteen minutes after the start of school, and for a 45-minute period after school ends).
3. All trucks must be in compliance with California law.
4. Operator must implement noise mitigation measures around any screening plant to ensure noise levels are within County Standards.
5. Use Permit term limited to seven years.

BACKGROUND FACTS

The Smith Pit II Tailings Project (the "Project") has been in operation for approximately 24 years pursuant to a legally issued Use Permit. Trinity S&G bought the property and its associated use permit in 2018 for approximately \$700,000 and has been operating it since. The Project serves the interest of the broader County population by supplying gravel for construction projects and homeowner uses. The Trinity County General Plan and Junction City Community Plan contain policies specifically identifying gravel extraction as an allowable use under the County zoning for the land use designation of Open Space and Natural Resources, the designations applicable to Trinity S&G's property. The General Plan policies strive to conserve County resources important to its character and economic well-being.

As you know, in 2017, before Trinity S&G bought the Project, the County experienced a significant natural calamity with the slide at Big French Creek on Highway 299. Clearing this critically important transportation route required the removal and disposal of half a million cubic yards of material. Trinity County authorized an emergency stockpiling of material at the Project site, which provided an important and cost-effective solution that helped resolve the emergency situation. That emergency required the cooperation of Caltrans, Trinity County, and the Project operator at the time, Mr. Clint Robinson. All agreed to the stockpiling of the material at the Project location. Because of the increased truck traffic required to transport the slide material, complaints about the Project's operations increased dramatically.

Following the emergency, a Use Permit and Reclamation Plan amendment should have been required and processed by the County, as required by local ordinance and state law. However, this did not occur. Trinity S&G did apply to amend the Use Permit in April 2018, almost immediately after it acquired the Project and as required by County ordinances and the changed conditions; but the application never received a hearing. Instead, the Planning Commission took the unusual step of turning the Use Permit Amendment process into a revocation proceeding.

In the course of the revocation proceeding, public commenters reported what they believed were multiple use permit violations, including the use of a truck scale, storage of slide material, truck operations outside the time periods allowed under the Use Permit, and extraction of material in areas not authorized by the Use Permit. Notwithstanding the conclusory nature of the complaints, legitimate questions concerning whether many of the issues raised were actual Use Permit violations, and the lack of due process afforded Trinity S&G, the Planning Commission voted to revoke the Use Permit. That decision was appealed to the Board of Supervisors on the grounds that the Planning Commission failed to follow the law and acted beyond its authority. After considering the evidence and argument presented, the Board of Supervisor remanded the matter back to the Planning Commission for further proceeding.

Notably, and to this day, no notice of violation has ever been issued in connection with the Project or relating to the Project's operations. In particular, the Planning Director has never made a finding or concluded that the use is being conducted in a manner detrimental to the public health, safety or general welfare or in a manner constituting a public nuisance, as required under section 17.32.070, subpart B of the Trinity County Code. Even more importantly, and as was pointed out to the Board of Supervisors, no consideration was ever given to modifying the use permit to alleviate or address any concerns with the Project. We think a modification of the Use Permit is the only fair way to proceed.

DISCUSSION

From a legal perspective, there are substantial problems with the manner in which the County handled the revocation and with the consequences of that decision:

1. Fundamental Vested Right

It has long been the rule in California and elsewhere that if a property owner has performed substantial work, and incurred substantial liabilities in good faith reliance on a permit issued by

the government, the owner acquires a vested right to complete the project. (See *Avco Community Developers, Inc. v South Coast Reg'l Comm'n* (1976) 17 C3d 785, 791, citing *Dobbins v City of Los Angeles* (1904) 195 US 223, 25 S Ct 18.)

Here we have a property owner who invested over \$700,000 to acquire the Project, including the Use Permit issued by the County for the property. Both Mr. Buick and his predecessor in interest spent significant funds in reliance on the Use Permit issued by the County. California courts have long noted that when fundamental vested rights are involved, those rights should not be taken away without adequate reason and after careful regarding of procedural and substantive due process rights.

Substantive due process addresses improper governmental interference with property rights and irrational actions by government decisionmakers. *County of Sacramento v Lewis* (1998) 523 US 833, 845; *Dodd v Hood River County* (9th Cir 1995) 59 F. 3d 852, 864. Procedural due process requires that a property owner be provided notice and an opportunity to be heard before the government may deprive the owner of a protected property right. *Goldberg v Kelly* (1970) 397 US 254, 267. These requirements have been held to include the right to a fair hearing, i.e., a hearing before unbiased decision-makers. *Morongo Band of Mission Indians v State Water Resources Control Bd.* (2009) 45 Cal. 4th 731; *Nasha LLC v City of Los Angeles* (2004) 125 Cal. App.4th 470, 483; *Gai v City of Selma* (1998) 68 Cal. App. 4th 213, 219.

In considering the question before you, you should consider that Trinity S&G never received a notice of violation or notice of enforcement action from Trinity County for any of the actions now complained of. The company applied for a Use Permit amendment to bring its project into compliance and to clarify some questions about the use permit language. Turning that application in a revocation proceeding is patently unreasonable, and conflicts with virtually every other code enforcement action taken by the County where a fundamental vested right – a protected property interest – is involved. A protected property interest is present where an individual has a reasonable expectation of entitlement deriving from existing rules or understandings that stem from an independent source. Here, the protected property interest at issue is the Use Permit and Trinity S&G's fundamental right to operate its business. The Planning Commission should not deprive my client of that right.

Further, the long record of this proceeding clearly establishes that the revocation hearing was not initiated in a fair manner and by unbiased decision makers. Under California law, a decisionmaker should be disqualified if he or she is personally embroiled in the dispute against the private party. (See, e.g., *Clark v. City of Hermosa Beach* (1996) 48 CA4th 1152, 1169-1173 (councilmember disqualified in zoning dispute in part because he was personally embroiled in the dispute); *Mennig v. City Council of City of Culver City* (1978) 86 CA3d 341, 350-352.) Generally, decisionmakers should be disqualified if they have prejudged adjudicative facts—i.e., facts about the specific parties or the events in dispute. (*Nasha L.L.C. v. City of Los Angeles* (2004) 125 CA4th 470 (due process required disqualification of local decisionmaker who wrote newsletter article suggesting prejudgment of issues); *BreakZone Billiards v. City of Torrance* (2000) 81 CA4th 1205, 1236 (“a commitment to a result (albeit, perhaps, even a tentative commitment), before the process will be found violative of due process”).)

The Planning Director never initiated a revocation action following the normal code compliance processes. Instead, the prior decision to revoke the Use Permit was an extreme consequence under the circumstances, particular where Trinity S&G had applied to amend its Use Permit to bring the Project into compliance. We are asking that the County make a good faith effort to afford my client that opportunity.

2. General Plan/Community Plan Policies and Goals

Allowing the Use Permit to remain in place, with modifications, would be consistent with the General Plan and the Junction City Community Plan. Specific goals and policies taken from these plans are set forth on Exhibit 1, attached hereto and incorporated by reference. These goals and policies are designed to (1) identify gravel extraction as an allowable use under the County zoning for the land use designation of Open Space and Natural Resources, (2) encourage mineral extraction within the Junction City Community, (3) support small business activities such as that operated by Trinity S&G, (4) ensure resource production lands continue to be utilized for such purposes, (5) ensure that State, Federal, or County projects provide every opportunity for small local contractors to favorably compete for contracts with large contractors, and (5) maintain the quality of the area's natural resources.

Simply, the planning policies strive to utilize and regulate those resources of the County that are important to its character and economic well-being. Acting consistent with those policies by amending the Use Permit and allowing the operator to proceed with the operation, subject to reasonable limitations, would help the County achieve the important and adopted goals and policies in those plans.

3. The Reclamation Bond is insufficient to restore the property and should be updated.

There is presently a Reclamation Bond in place for the Project, but it has not been increased in many years. The purpose of the reclamation bond is to provide a financial guarantee that the land being disturbed for the Project's operation (or a related activity) will be returned to an acceptable condition when the Project is complete. The existing reclamation bond in the sum of \$3,864.26 is facially insufficient to reclaim the property if the current use is eliminated, particularly given the quantity of materials stored there after the Highway 299 slide. The reclamation bond was last updated in 2016, before the slide material being brought in, by the prior operator, Clint Robinson. The bond should have been updated when the Project was sold to Trinity S&G, but this never occurred. To exacerbate the problem, the acceptance of the nearly 500 thousand cubic yards of slide material represents a substantial change to conditions on the ground. A decision to revoke the permit means there is virtually no chance the site will be reclaimed and restored to an acceptable condition. If the Commission revokes the Use Permit, the County will have no mechanism by which it can legally increase the financial surety, no funds to complete the reclamation plan, and no certainty that the property will ever be reclaimed. The absence of a viable reclamation plan represents a failure on the County's part and will interfere with the County's goal of returning the property to a condition emphasizing natural resource values.

4. The Planning Commission's findings are not adequate to support the revocation decision.

Quasi-judicial decisions, such as the revocation decision at issue, must be based on credible evidence relevant to the decision to be made. The relevant facts are defined by the rule or policy to be applied. For example, if issuance of a conditional use permit requires a finding that a proposed use complies with the zoning ordinance, and the zoning ordinance imposes a limitation on the use, the use of the proposed structure on the site is a relevant fact.

In situations such as this, where the Planning Commission is acting in a quasi-judicial capacity, the decision must be based on substantial evidence. More importantly, where a fundamental vested right is at stake, such as the deprivation of an important economic right, a reviewing court will look at the record and make its own "independent judgment" of the evidence relied upon.

The previous findings adopted to support the revocation decision consisted of public complaints and four instances where trucks were purportedly operating outside of the hours authorized under Use Permit Condition #5.

I want to emphasize that public opposition is always relevant as a political matter, but the mere fact of public opposition or controversy is not relevant in a quasi-judicatory decision. The decision must be supported by substantial evidence.

The public complaints, in multiple instances identified in the staff report, do not constitute "substantial evidence." The County's own investigation found that the many of the complaints were either minor or non-existent. While violations of Use Permit condition #5 and others were documented, the staff report highlights the fact that many complaints were found not to be valid. Also, many of the complaints are based on events that occurred in past years and are no longer active problems now, or even when the initial hearing took place. As many commenters noted, their issues and concerns stemmed from the 24 hour operations in 2017 necessary to bring in the slide material. That event has long passed.

Noise Concerns

With respect to noise concerns, Trinity S&G provided substantial evidence consisting of an Environmental Noise Assessment prepared by Bollard Acoustical Consultants, Inc. That Assessment, which was prepared following specific field testing and analysis, established that the Project noise levels do not exceed the County's limits following implementation of mitigation measures. A copy of the Assessment is attached hereto as Exhibit 2. That same consultant conducted a subsequent assessment of noise generated by trucks passing the Elementary School. The results of that assessment are set forth in the PowerPoint presentation attached hereto as Exhibit 3.

Trinity S&G has already placed noise mitigation features around its wash plant and, to the extent they have operated, used sand to line the bottom of their trucks to reduce the noise created from loading cobble. We also want to point out that Trinity S&G no longer owns any haul trucks. To the extent the County or the community has any concerns about the age of the trucks, all trucks used in conjunction with Trinity S&G operations will be in full compliance with California law.

Hours of Operation - Use Permit Condition #5

In terms of the alleged violation of Use Permit Condition #5, this is one of the areas where ambiguity in the Use Permit creates issues that could be resolved with modifications.

Condition #5 states:

Hours of operations for the mining activities shall be from 7:00 a.m. to 6:00 p.m. Monday through Friday, with no operations to occur during the weekend (Saturday and Sunday) or on legal holidays. Mechanical screening activity, if it occurs, shall cease by 4:00 p.m. each business day. To reduce potential conflict between the proposed commercial truck activity associated with this mine operation and school related pedestrian and vehicle traffic, material hauling on Red Hill Road shall not occur during the morning and afternoon periods when children are coming to or leaving school (one half hour prior to and fifteen minutes after the start of school, and for a 45 minute period after school ends).

The staff report notes two site visits during which trucks were observed operating purportedly outside the prescribed hours. However, most of the alleged violations rely on an interpretation of Condition #5 that is inconsistent with its plain language.

The Compliance Report dated February 3, 2020 identified the following truck activity that was determined to be a violation of the Use Permit:

1. Two trucks heading to the Smith Pit Mining Operation site prior to 7:00 a.m.
Response: The Commission should note that Condition #5 does not prohibit unloaded trucks from driving to the Project site, and such activity does not constitute "mining activities" or "material hauling." Instead, the language in the Use Permit prohibits "material hauling on Red Hill Road" during certain hours. The permit is silent on when empty trucks may drive to the site.
2. One truck heading to the Smith Pit Mining Operation at 8:40 a.m.
Response: Again, Condition #5 does not prohibit unloaded trucks from driving to the site, only material hauling, i.e., loaded trucks.
3. Two trucks heading to the Smith Pit mining Operation between 2:00 and 2:45 p.m.
Response: Condition #5 does not prohibit unloaded trucks from driving to the site.
4. One full truck leaving the Smith Pit Mining Operation between 2:00 and 2:45 p.m.
Response: Trinity S&G acknowledges this is a violation of Condition #5. But of all the trucks observed and described in the Staff Report, this is the only one that was actually in violation of the Use Permit limits on the hours of operation.

The October 16, 2020 Compliance Report identified the following:

1. "Staff observed truck traffic from the Junction City Elementary School parking lot on Thursday, October 16, 2020 from 6:45 am to 8:45 am and from 3:00 pm to 3:45 pm."
Response: There is no evidence that the truck traffic observed was from the Smith Pit Mining Operation, and there are many other trucks that used Red Hill Road.

2. 3:00pm to 3:45pm: Truck traffic was observed during the restricted time period at 3:07pm and 3:24pm. Staff followed the truck to the Smith Pit Mining Operation site to ensure that the truck was associated with the mining operation and a video was taken during 3:07pm and 3:24pm.

Response: Condition #5 does not prohibit unloaded trucks from driving to the site. To the extent the video shows an empty truck heading to the site, that is not a violation. Trinity S&G acknowledges that the photo with the 3:24 pm time stamp shows a violation of Condition #5.

Despite the fact that the Use Permit explicitly refers to “material hauling on Red Hill Road” (emphasis added), County staff appears to interpret that language to prohibit all truck traffic during the specified hours. If that is the case, then that language should be written into the Use Permit.

Applying a plain reading of Condition #5, of the 6 violations identified, only two represent instances where material was being hauled on Red Hill Road. We believe those two violations do not justify the “nuclear option” of revoking Trinity S&G’s Use Permit and the elimination of the fundamental vested rights acquired when the property was purchased. Instead, we urge the Commissioners to implement reasonable modifications to the Use Permit to clarify the hours of operation.

CONCLUSION AND RECOMMENDATION

Revocation of Trinity S&G’s Use Permit is not the appropriate approach to achieve compliance with the conditions of the Use Permit and the goals of the broader County planning and land use interests. Revocation of the Use Permit will result in none of the adopted County goals of supporting economic and environmentally sound resource use and restoration to occur – the goals that supported the original issuance.

Because of the natural disaster of 2017, arguably the situation has become more complicated than anyone, including the operator, could have envisioned. Fairness and satisfaction of adopted County planning and community development goals dictate that a Use Permit Amendment and modified Reclamation Plan, together with an increased bond be considered by Trinity County, following appropriate environmental review and subject to updated conditions of approval that recognize the changed conditions on the ground.

The Use Permit Amendment would not be to expand the operation beyond its present scope but would be to bring the Project into compliance, including the adoption of mitigation measures to address legitimate and identifiable issues. An increased Reclamation bond would ensure there is sufficient financial surety to reclaim the lands following the mining project. Compliance with the conditions of an amended Use Permit would be expected and supported through a jointly agreed to enforcement agreement that includes regular monitoring provisions and specific fines and procedures in the event of a violation. Any actual expansion of the operation would require a further amendment of the Use Permit.

The staff report to the Planning Commission notes that a modification of a Use Permit can be made in lieu of revocation where the Planning Commission determines that the detrimental aspects of the use which exist may be alleviated through a modification to the use permit. Here, the Use Permit can be modified to alleviate the problems that have been identified, as follows:

1. No truck traffic to or from the Project site prior to 7 a.m.
2. No truck traffic to or from the Project site during the morning and afternoon periods when children are coming to or leaving school (one half hour prior to and fifteen minutes after the start of school, and for a 45-minute period after school ends).
3. All trucks must be in compliance with California law.
4. Operator must implement noise mitigation measures around any screening plant to ensure noise levels are within County Standards.
5. Limit the number of years of further Project operations to seven years.

We also suggested that Trinity S&G and the Planning Director work together to (1) update the Reclamation Bond to provide adequate surety to reclaim the Project site once the operation is complete, and (2) develop a mutually acceptable Enforcement Agreement/Compliance Plan that includes specific procedures for processing and resolving any issues that might arise in the future.

In light of the foregoing, Trinity S&G respectfully requests that the Planning Commission direct staff to work with the company to develop an amendment to the permit that addresses the County's concerns and the community's concerns, supported by a viable enforcement agreement, and to provide for adequate surety for future reclamation of the property, while allowing Trinity S&G to retain some economic benefit in the property.

Thank you for your consideration.

Very truly yours,



JEFFERY J. SWANSON

cc: Judd Buick, Trinity Sand & Gravel

EXHIBIT 1

EXHIBIT 1

POLICIES AND GOALS OF

TRINITY COUNTY GENERAL PLAN

AND

JUNCTION CITY COMMUNITY PLAN

TRINITY COUNTY GENERAL PLAN

The Project's mining activity is consistent with significant land use policies of the Trinity County General Plan and the Junction City Community Plan.

a. General Plan

The Trinity County General Plan (2001) contains goals and policies designed to guide the future physical development of the county based on current conditions. The General Plan contains all the state-required elements including community development and design, transportation, natural resources, health and safety, noise, housing, recreation, economic development, public facilities and services, and air quality.

Trinity County Goals and Policies:

Environmental

County-wide goals and objectives strive to conserve those resources of the County that are important to its character and economic well-being 1) by assuring that developments occurring on these lands are compatible with the resources; 2) by strongly supporting the County as "lead agency" or as an integral participant in any state or federal project within the County so that all agencies are made aware of local desires and all plans are coordinated; 3) by utilizing a sound resource-related planning process in decision-making; and 4) by protecting not only rare and endangered species, but also required habitat for more plentiful species.

Land Use Designation

Land Use Designations are broad general descriptions of the types of land use that may occur in a specific area. Three general designations have been identified by the County: Community Development; Village; and Natural Resources in Junction City Community Plan. Although these designations can be further specified, with the exception of lands included in the "Village" designation, the general objectives of land use designations are as follows: 1) In areas designated as Community Development, a specific development plan should be formulated that provides a comprehensive breakdown of factors relevant to the project type.

Natural Resource designation lands can allow for some degree of development, such as campgrounds, resorts, and rural residential, but any new development in these areas must emphasize and enhance the Natural Resource areas in which they are located.

JUNCTION CITY COMMUNITY PLAN

The Junction City Community Plan (Trinity County 1987), as adopted by the County, covers approximately 42 square miles (27,000 acres) of area centered on the Trinity River from Maxwell Creek to slightly downstream of Helena. Community Plan elements and related goals and objectives relevant to this Project are:

a. **Economic Development Element:**

Economic Development Goals. This element incorporates the following goals for the Junction City Plan:

1. To recognize and encourage, as a priority, small business activities in the Plan Area.
2. To provide expansion areas for existing and future businesses.
3. To encourage recreation development as a viable section of the local economy.
4. To ensure resource production lands continue to be utilized for such purposes.

Goals and Objectives

The following restated goals and related plan objectives were formulated to encourage economic growth and employment activities consistent with the characteristics of the community.

Goal #1: To recognize and encourage, as a priority, the small business activities found in the Plan Area. The Plan Area, like much of Trinity County, is highly dependent on individual, rather than large employment centers, for employment opportunities. The Community Plan recognizes the need to encourage small business activities and proposes to assist in providing for such opportunities by the following objectives.

Objectives (relevant to issue):

- Ensure that State, Federal, or County projects provide every opportunity for small local contractors to favorably compete for contracts with large contractors.

Goal #3: To provide expansion areas for existing and future businesses. The Plan recognizes the desire in maintaining existing business while still allowing for competition by adoption of the following objectives:

Objectives:

- Designate a commercial expansion area near the Junction City Park site.
- Maintain a surplus of commercially zoned acreage within the Plan Area.

Goal #4: To ensure that resource production lands continue to be utilized for such purposes. Resource-dependent activities such as timber harvesting and mineral extraction play an important role in the local and County economy. Although processing activities have increasingly become more centralized outside of the community it is still important that the Plan

encourage such activities. The Plan proposes to encourage these activities by the following objectives.

Objectives:

- Encourage timber harvesting activities on the basis of sustained yield to ensure continued employment.
- Protect resource areas from encroachment by incompatible uses.
- Encourage the siting of wood processing facilities or similar improvements which promote or provide for further processing of wood products within the County.

b. Natural Resources Element

The Community Plan incorporates the following natural resource goals:

1. Maintain and enhance the high quality of the area's natural resources. (Speaks to need for reclamation efforts)
2. Preserve and maintain open space areas for a variety of wildlife uses.
3. Protect and improve fish habitat within the Plan Area. (Speaks to need for reclamation efforts)
4. Encourage the siting of commercial, industrial or similar noise producing or tolerant activities adjacent to Highway 299.
5. Encourage the continued use of resource lands for resource production purposes.

Recommended Goals and Objectives

The following goals and related plan objectives were developed to both protect and promote the wise use of natural resources within the Plan Area.

Goal #5: Encourage the continued use of resource lands for resource production purposes. The sound management and utilization of resource lands is important for sustained economic growth in Trinity County as well as the Plan Area. The following objectives are intended to insure that resource lands continue to be used for resource productive purposes.

Objectives:

- Encourage management activities on resource lands which insure their continued productivity especially the utilization of uneven age silvicultural practices.
- Encourage the sound use of mineral resources, especially sand and gravel operations, which also reduce sedimentation of the Trinity River.
- Discourage the division of existing parcels in resource areas to less than 80 acres.
- Encourage the use of Specific Unit Developments on large acreage lands which are capable of accommodating both limited residential uses and resource production to ensure future resource uses on these lands.

c. Land Use Designation

The land use element of the community plan is intended to provide a clear understanding of how the community functions as a whole, as well as ensuring that provisions are made for community growth concurrent with environmental protection. The Community Plan has six general land use categories: Rural Residential, Commercial, Village, Agricultural, Open Space, and Resource. Area is designated as "Open Space" in County General Plan.

Land Use Goals identified in the plan and applicable to this project include:

Goal 1. To develop a land use pattern which implements the other elements of the Junction City Community Plan.

Goal 2: To provide a variety of land use types and residential densities within the Community Plan area.

Goal 3. To guide development in such a manner that an acceptable balance is achieved between the costs for public facilities and services and revenues or improvements required of new developments.

Goal 4. To encourage development that is consistent with the land's natural carrying capacity.
Land Use

Goal 5. To encourage the retention and utilization of resource lands for timber production, agricultural use, and mineral extraction

This element of the community plan is intended to provide a clear understanding of how the community functions as a whole, as well as ensuring that provisions are made for community growth concurrent with environmental protection. Specific goals and objectives applicable to this Project include:

Goal #1: To develop a land use pattern that utilizes the other elements of the Community Plan.

Goal #5: To encourage the retention and utilization of resource land for timber production, agricultural uses, and mineral extraction. An objective consistent with this goal is the encouragement "of mineral extraction activities, especially gravel extraction uses, within the Trinity River."

Project Consistency with the Trinity County General Plan and Junction City Community Plan

Approval of the original CUP (P-97-32) for mining and reclamation activities indicates the County's determination that the mining activity is appropriate and consistent with the goals of the General Plan and Community Plan.

The following goals and objectives are applicable to this project. Goal: To encourage the retention and utilization of resource land for timber production, agricultural uses, and mineral

extraction. An objective consistent with this goal is the encouragement of mineral extraction activities, especially gravel extraction uses, within the Trinity River.

EXHIBIT 2

Environmental Noise Assessment

Smith Tailings Operations

Trinity County, California

BAC Job #2020-129

Prepared For:
Trinity Sand and Gravel, Inc.
Attn : John Buick
P.O. Box 21
Weaverville, CA 96093

Prepared By:
Bollard Acoustical Consultants, Inc.


Paul Bollard, President

March 22, 2021



Introduction

The Smith Tailings site is located northwest of Junction City in Trinity County, California. The project site location is shown on Figure 1. The existing Conditional Use Permit (CUP) and Reclamation Plan (P-97-32) for the Smith Tailings Operation was approved by the County of Trinity Planning Commission in November 1997. The existing permit includes an operational/reclamation area of approximately 9 acres and an estimated total production of approximately 350,000 cubic yards of sand and gravel. The conditions of the existing permit state that the operation is primarily a "scoop and haul" operation that shall occur between the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday. The only on-site processing permitted under the conditions of the existing permit is the use of one (1) portable, temporary screening unit. The conditions of the permit require that mechanical screening activity shall cease by 4:00 p.m. each business day.

The proposed project is an amendment to the existing Conditional Use Permit and Reclamation Plan for the Smith Tailings Operation to allow the following:

- Installation and use of additional equipment (e.g., rock crusher, truck scale, etc.).
- The receipt, storage, and processing of slide material from Caltrans.
- Modification to the Reclamation Plan to include the expansion of the operational area at the site to include areas that were inadvertently mined in past, areas for processing, and a storage area for the Caltrans slide material currently located at the site.
- No change in proposed hours of operation (will remain limited to 7 a.m. – 6 p.m.).

Prior to submittal of the current application for a Conditional Use Permit and Reclamation Plan Amendment (P-18-011), the previous operator made several modifications to the Smith Tailings Operation that were not specifically authorized by the existing Conditional Use Permit. Those modifications included, but were not limited to, the following:

- Installation and operation of equipment for gravel washing.
- Installation and operation of a truck scale.
- Intermittent operation of a rock crusher.
- Expansion of the operational area identified in the Reclamation Plan by approximately 6.4 acres.
- Receipt and storage of approximately 500,000 cubic yards of slide material from Caltrans.

Because the currently proposed operations have not been analyzed for compliance with Trinity County General Plan noise standards, the County has required that a noise study be prepared for this project. In response to that request, Bollard Acoustical Consultants, Inc. (BAC) submitted a proposal to prepare the project noise study. Trinity County reviewed the proposal and determined the proposed scope of work to be appropriate. BAC then contracted with the project applicant to prepare this noise study.



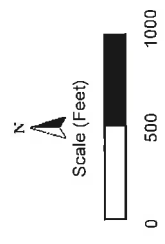
Legend



Representative Sensitive Receptor and Noise Measurement Locations



Smith Tailings Sand & Gravel Site Boundaries



Smith Tailings Project

Trinity County, CA

Project Site Location, Sensitive Receptors
& Noise Monitoring Locations



BOLLARD

Acoustical Consultants

Figure 1

Noise Fundamentals and Terminology

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that human hearing can detect. If the pressure variations occur frequently enough (i.e., at least 20 times per second) they can be identified as sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second or Hertz (Hz). Please see Appendix A for definitions of terminology used in this report.

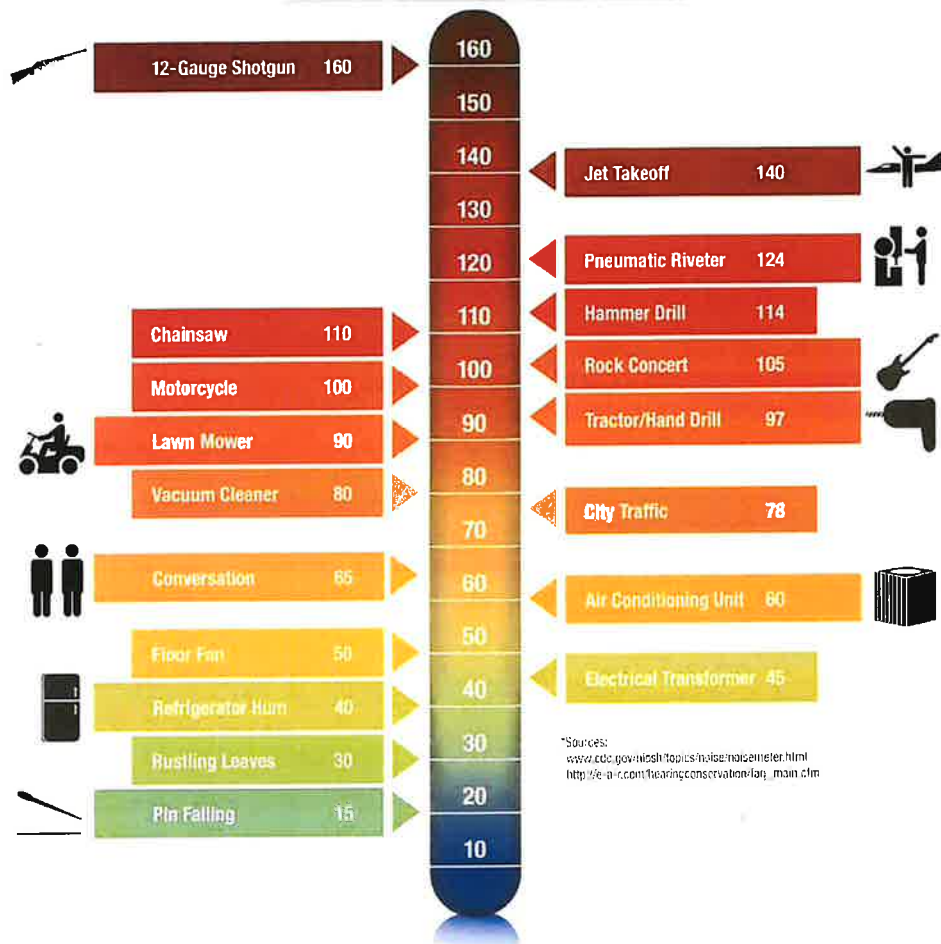
Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale utilizes the hearing threshold (20 micropascals of pressure) as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers within a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. Figure 2 illustrates common noise levels associated with various sources.

The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighting the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. All noise levels reported in this analysis are A-weighted.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}) over a given time period (usually one hour). The L_{eq} is the foundation of the Day-Night Average Level noise descriptor, L_{dn} , and shows very good correlation with community response to noise.

The Day-Night Average Level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures.

Figure 2
Noise Levels Associated with Common Noise Sources
Decibel Scale (dBA)*



Criteria for Acceptable Noise Exposure in Trinity County

Table VII (Maximum Allowable Noise Exposure-Stationary Noise Sources) of the Trinity County General Plan Noise Element contains maximum allowable noise exposure levels for stationary noise sources. Noise Element Table VII was reproduced below as Table 1. Stationary noise sources are defined by the Noise Element (pg. 3) as “Any fixed or mobile sources not preempted from local control by existing federal or state regulations. Examples of such sources include industrial and commercial facilities, and vehicle movements on private property.” Therefore, the activities occurring on the Smith Tailings project site meet the definition of a stationary noise source provided in the Noise Element, including on-site heavy truck movements. However, project-generated heavy truck traffic utilizing the local public roadway network as it either arrives or departs the project site would not meet that same definition. Rather, off-site project traffic would be subject to Noise Element Table VI standards applicable to transportation noise sources. Table VI is reproduced below as Table 2.

Table 1
Maximum Allowable Noise Exposure - Stationary Noise Sources

Noise Level Metric	Daytime (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Equivalent Sound Level (Leq), dB	55	50	45
Maximum Sound Level (Lmax), dB	75	70	65
1. As determined at outdoor activity areas. Where the location of the outdoor activity area is unknown or not applicable, the noise standard shall be applied at the property line of the receiving land use. 2. For recurring impulsive noise sources, the allowable maximum (Lmax) noise exposure shall be 70 dBA in the daytime, 65 dBA in the evening, and 60 dB in the nighttime. 3. For noise primarily comprised of speech and/or music, the allowable noise exposure in Table 1 shall be reduced by 5 dB. 4. For noise sources that are found and declared by the Board of Supervisors to be from uses of such importance to the county for economic, environmental enhancement, or movement of goods, services, or people that the allowable noise exposure in Table VII shall be increased by 10 dB.			
Source: Trinity County General Plan Noise Element, Table VII, pg. 30.			

Table 2
Maximum Allowable Noise Exposure – Transportation Noise Sources

Land Use	Outdoor Activity Areas¹ Ldn, dB	Interior Space	
		Ldn, dB	Leq, dB
Residential	60	45	
Transient Lodging	60	45	
Hospitals, Nursing Homes	60	45	
Churches, Meeting Halls	60		45
Schools, Libraries, Museums, Day-Care Centers	---		45
Source: Trinity County General Plan Noise Element, Table VI, pg. 29.			

The purpose of this noise study is to determine whether the modifications to the Smith Tailings operation are in compliance with the maximum allowable noise exposure levels shown above in Tables 1 and 2. If the operations are determined to exceed the noise levels in Table 1 or 2, additional noise attenuation measures will be required to ensure compliance. The County's request for a Noise Study for this project is consistent with Policy 4.2.4 in the Noise Element, which states:

"Noise created by proposed stationary noise sources or existing stationary noise sources which undergo modifications that may increase noise levels shall be mitigated so as not to exceed the noise level standards of Table VII (Table 1 above) at noise-sensitive land uses."

Appendix B (Requirements for an Acoustical Analysis) of the Noise Element contains the following requirements for an acoustical analysis:

- A. Be the financial responsibility of the applicant.
- B. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
- C. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and significant noise sources. Where actual field measurements cannot be conducted, all sources of information used for calculation purposes shall be fully described.
- D. Estimate existing and projected (20 years) noise levels and compare those levels to the adopted policies of the Noise Element. Projected future noise levels shall take into account noise from planned streets, highways, and road conditions.
- E. Recommend appropriate mitigation to achieve compliance with the adopted policies of the Noise Element, giving preference to proper site planning and design over mitigation measures which require the construction of noise barriers or structural modifications to buildings which contain noise-sensitive land uses.
- F. Estimate noise exposure after the prescribed mitigation measures have been implemented.

Summary of Noise Standards Applied to this Project

As noted in the Introduction section of this report, no change in the currently permitted hours of operation are proposed. As a result, operations will remain between the hours of 7 a.m. to 6 p.m. Therefore, the Table 1 daytime standards which would be applicable to this project are 55 dB L_{eq} and 75 dB L_{max} at the nearest residences. These standards are only applicable to noise generated by equipment operating on the project site. Project heavy truck traffic on the local public roadway system (not on-site truck movements), would be subject to the 60 dB L_{dn} exterior noise standard at residences and 45 dB L_{eq} inside the school buildings.

Noise Generation of the Proposed Project

Existing On-Site Noise Sources

The primary on-site noise sources associated with the existing operations at the Smith Tailings site include on-site heavy truck circulation, the wash plant, and mobile equipment (loaders, excavators, dozer, water truck), including backup warning devices.

To quantify the noise generation of these existing sources, BAC utilized a combination of noise level measurements of existing equipment currently operating at the site, BAC file data for equipment which is proposed but was not operating at the site during BAC's site visit, and use of industry standard sound propagation algorithms.

BAC staff conducted a site visit on Sunday, October 18 to Monday, October 19, 2020. On the afternoon of Sunday, October 18, 2020, BAC staff met with a representative of the applicant (Cari Bachelder), and interested local residents to discuss their concerns regarding the noise generation of the proposed operations. Prior to and during that meeting BAC was granted permission to conduct noise level measurements of current facility operations from representative noise-sensitive receptor locations (nearby residences and the Junction City Elementary school). On the afternoon of Sunday, October 18, 2020, sound level meters were placed at five (5) locations. Two additional monitoring sites were set up on the morning of Monday, October 19, 2020. The noise monitoring locations are shown on Figure 1. Appendix B shows photographs of Monitoring Sites 1-7.

Larson Davis Laboratories (LDL) Model 820, 831 and LxT precision integrating sound level meters were used to complete the noise level measurement surveys. The meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator to ensure the accuracy of the measurements. The equipment used meets all pertinent specifications of the American National Standards Institute for Type 1 (Precision) sound measurement equipment (ANSI S1.4).

The intent of the noise survey was to determine the level of noise generated by existing operations at the project site at representative nearby sensitive land uses. On Monday morning, October 19, 2020, operations at the project site commenced at 7 a.m. with a loader filling an empty haul truck with aggregate materials. At approximately 8 a.m. the wash plant was started and it operated until approximately 9 a.m. until a bearing in the plant reportedly required replacement and the wash plant operations had to cease for the day.

Although it had been the intent of the noise monitoring program to monitor noise continuously for the entire working day on Monday, October 19, 2020, with the wash plant non-operational after 9 a.m. the only noise sources remaining in operation at the site were mobile equipment and truck loadout. Fortunately, BAC was able to quantify wash-plant noise levels at the various measurement sites while it was still operational and those results indicate that the wash plant

noise generation was fairly steady-state at the plant site. As a result, the noise level data collected at the sensitive receptors while the wash plant was operating could accurately be projected onto the hours when the plant was not operating to quantify facility noise emissions.

Following shut-down of the wash plant, BAC conducted individual, isolated, noise level measurements of a front-loader feeding aggregate material through the grizzly (a fixed screen), of loaders operating at various locations on the site, including back-blading operations (with backup warning devices operating). BAC also conducted measurements of the excavator both moving to a work area and then moving aggregate material once it reached the work area. Appendix C shows photographs of the mobile equipment noise measurements.

Noise sources which were not present at the site during the noise survey, but which are proposed as part of the current application, include a portable crushing/screening plant and normal levels of on-site heavy truck traffic. Those noise sources were modeled and the methodology and results of those modeling efforts are described in the next sections of this report.

The results of the short-term ambient noise survey are complicated as both project (wash plant, & on-site mobile equipment) and non-project traffic on Red Hill Road contributed to the measurement results at the nearest sensitive receptors. In order to isolate the noise generation of the project operations at the nearest sensitive receptor locations from non-project noise sources, BAC compared the second-by-second noise levels measured at the project site (Site 1, see Figure 1) to the same time intervals at the other measurement sites. Figures 3-8 illustrate the noise levels measured at sensitive receptor sites 2-7 as well as measurement results measured concurrently at Site 1 during the period of approximately 7 a.m. to 9:15 a.m. These figures require some explanation due to their complexity and those explanations follow the presentation of the measurement results.

It should be noted that the measurements conducted at Site 1 during the 7 a.m. to 9:15 a.m. period represent all activities occurring at the project site during that period, including periodic operation of the wash plant, on-site truck movements, mobile equipment operations, back-up warning devices, the dumping of cobble into an empty trailer (an event which reportedly only occurs approximately 1% of the time), etc. Those measurements were conducted from a fixed location approximately 250 feet west of the wash plant and operating mobile equipment.

Following shutdown of the wash plant, BAC relocated monitoring Site 1 to various positions to isolate the noise generation of the on-site mobile equipment. Those subsequent measurement results are presented following the presentation and discussion of the monitoring results for the 7 a.m. to 9:15 a.m. period.

Figure 3
Noise Survey Results: Sites 1 and 2
7 - 9:15 AM, October 19, 2020

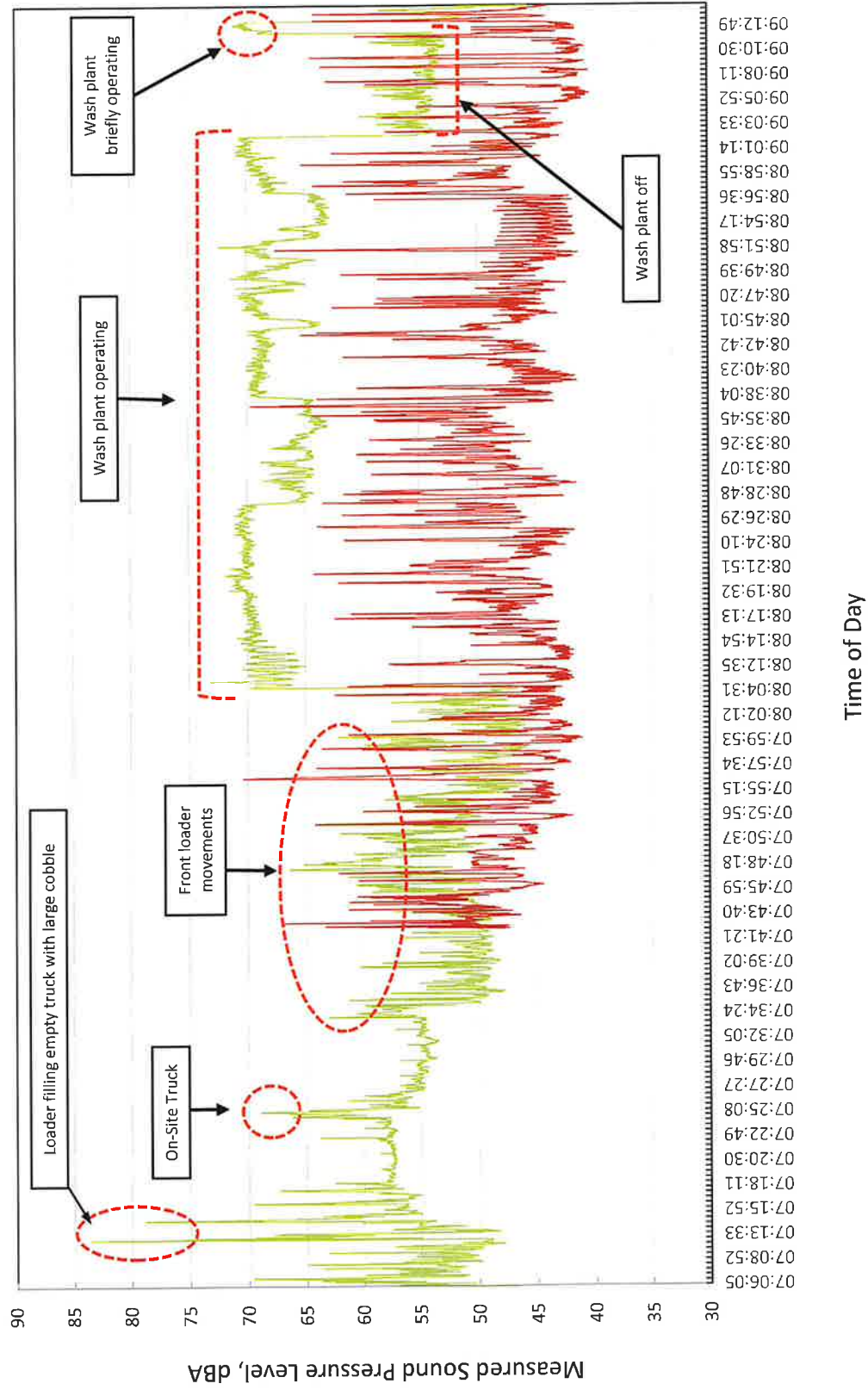


Figure 4
Noise Survey Results: Sites 1 and 3
7 - 9:15 AM, October 19, 2020

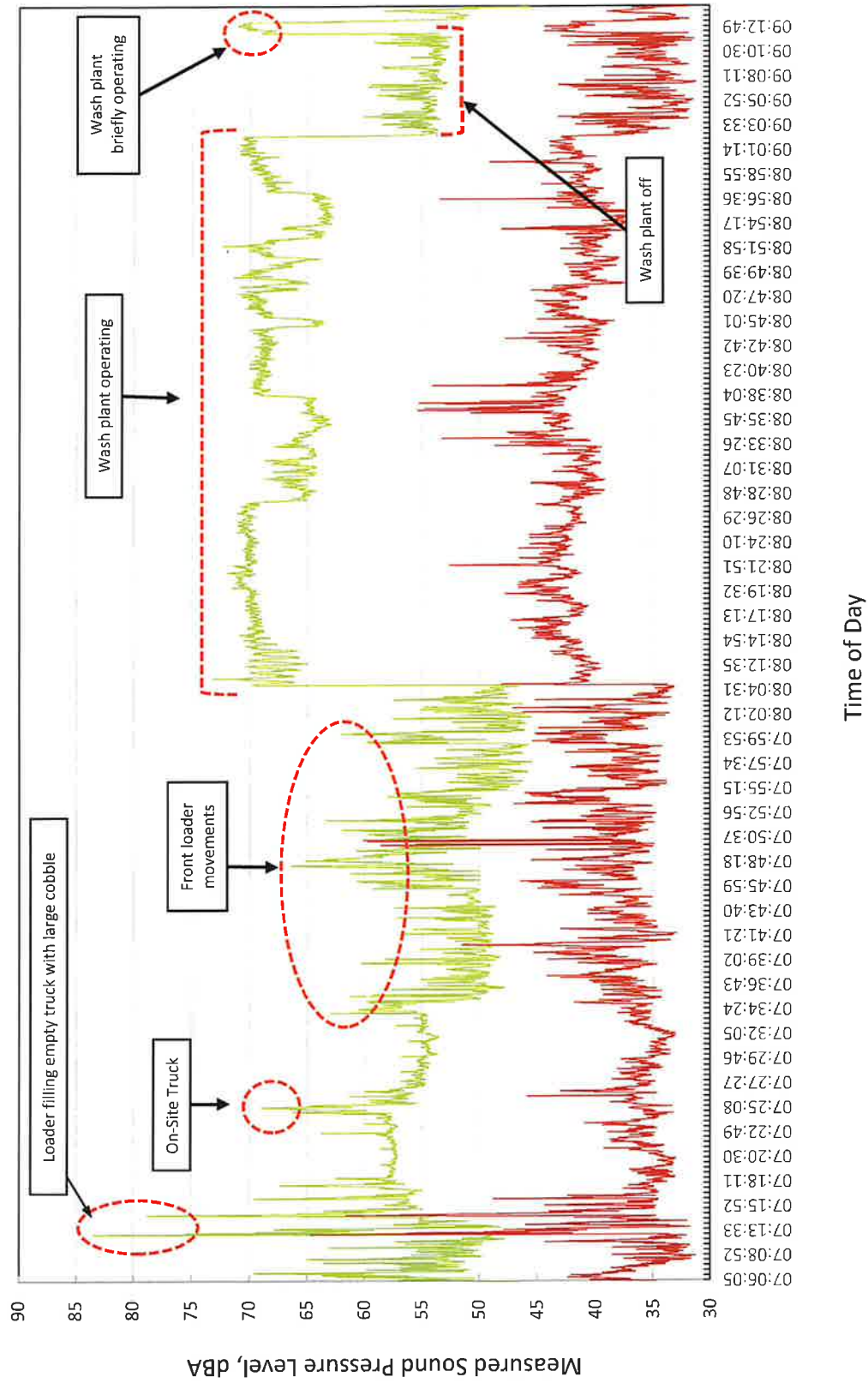


Figure 5
Noise Survey Results: Sites 1 and 4
7 - 9:15 AM, October 19, 2020

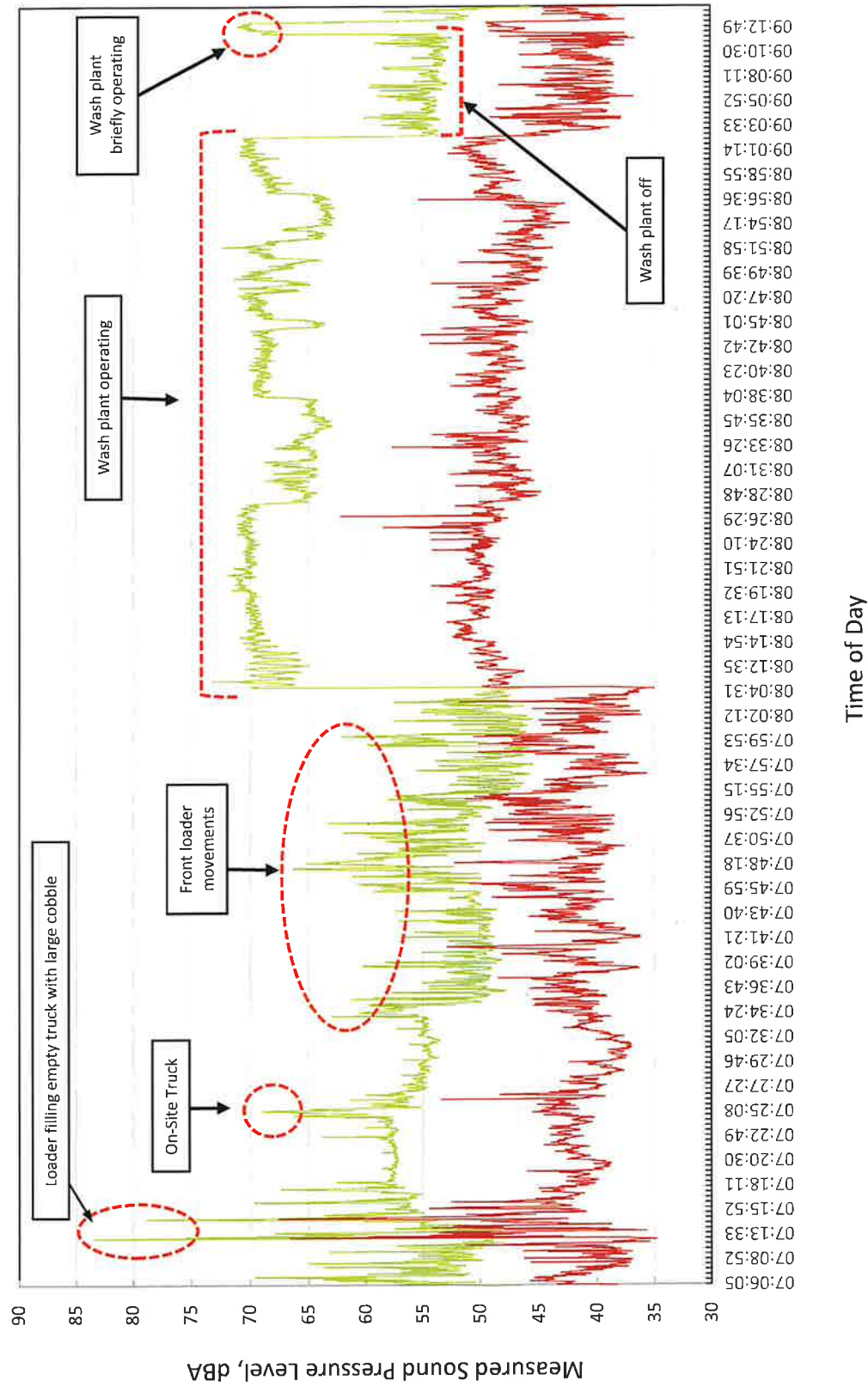


Figure 6
Noise Survey Results: Sites 1 and 5
7 - 9:15 AM, October 19, 2020

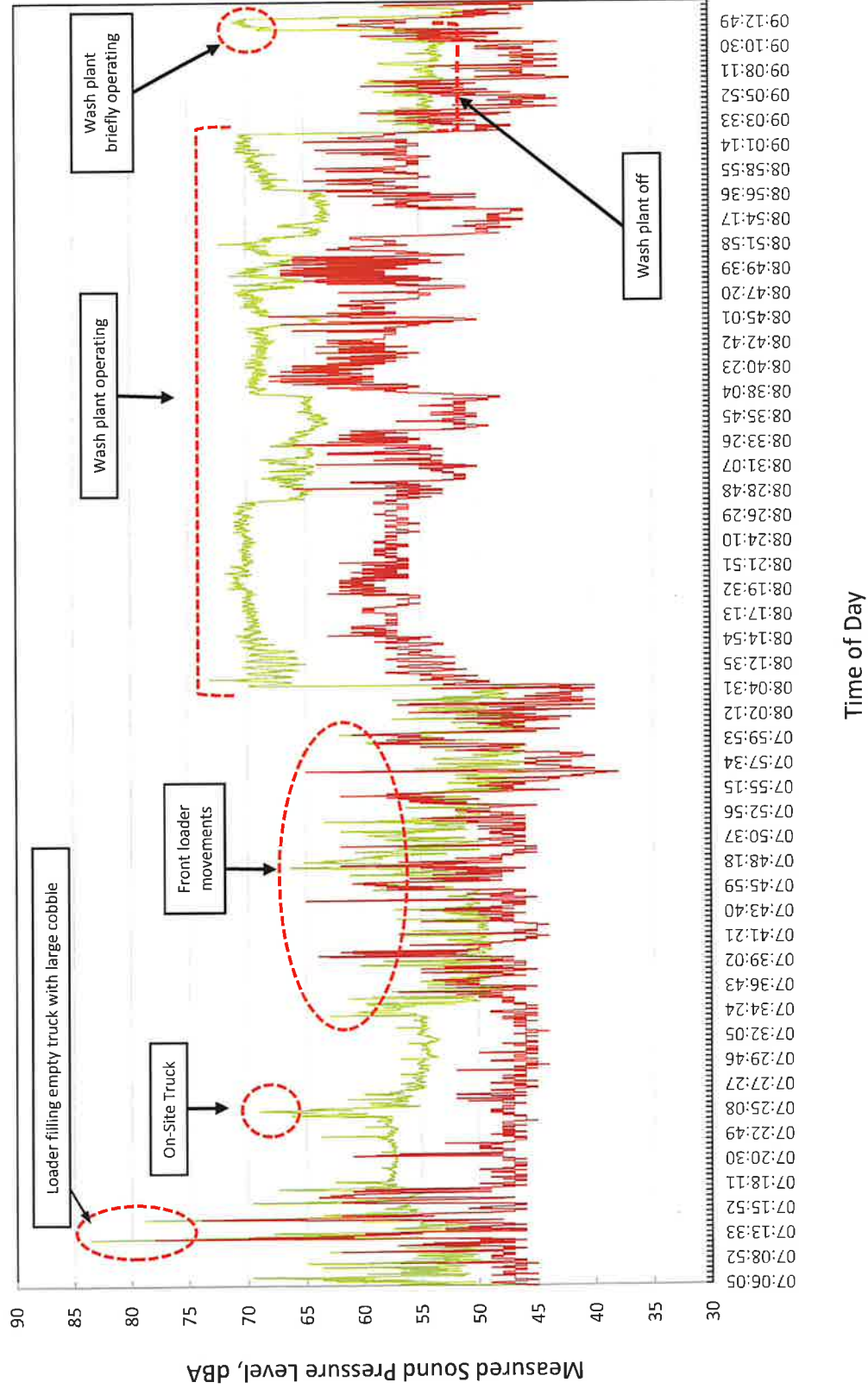


Figure 7
Noise Survey Results: Sites 1 and 6
7 - 9:15 AM, October 19, 2020

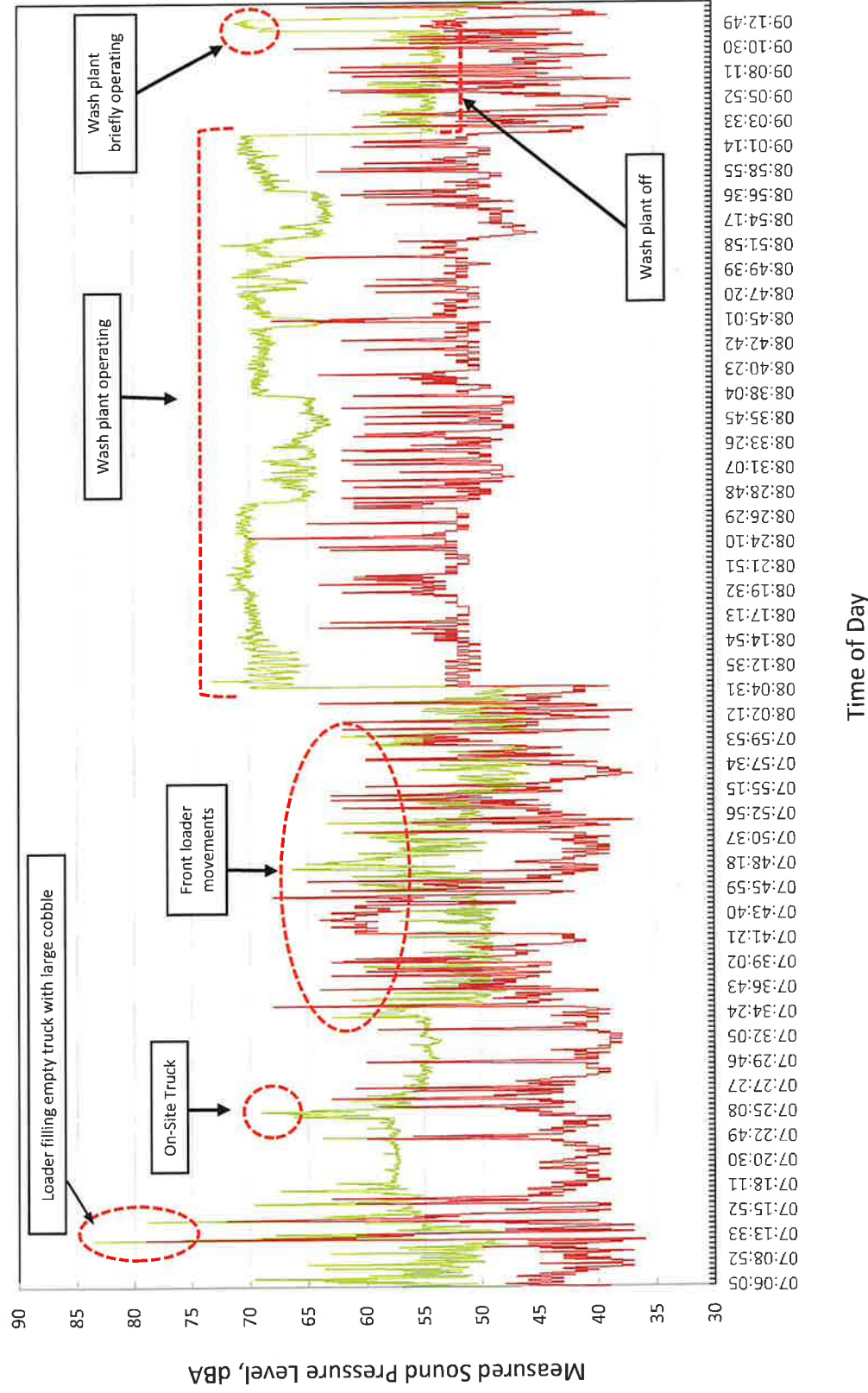
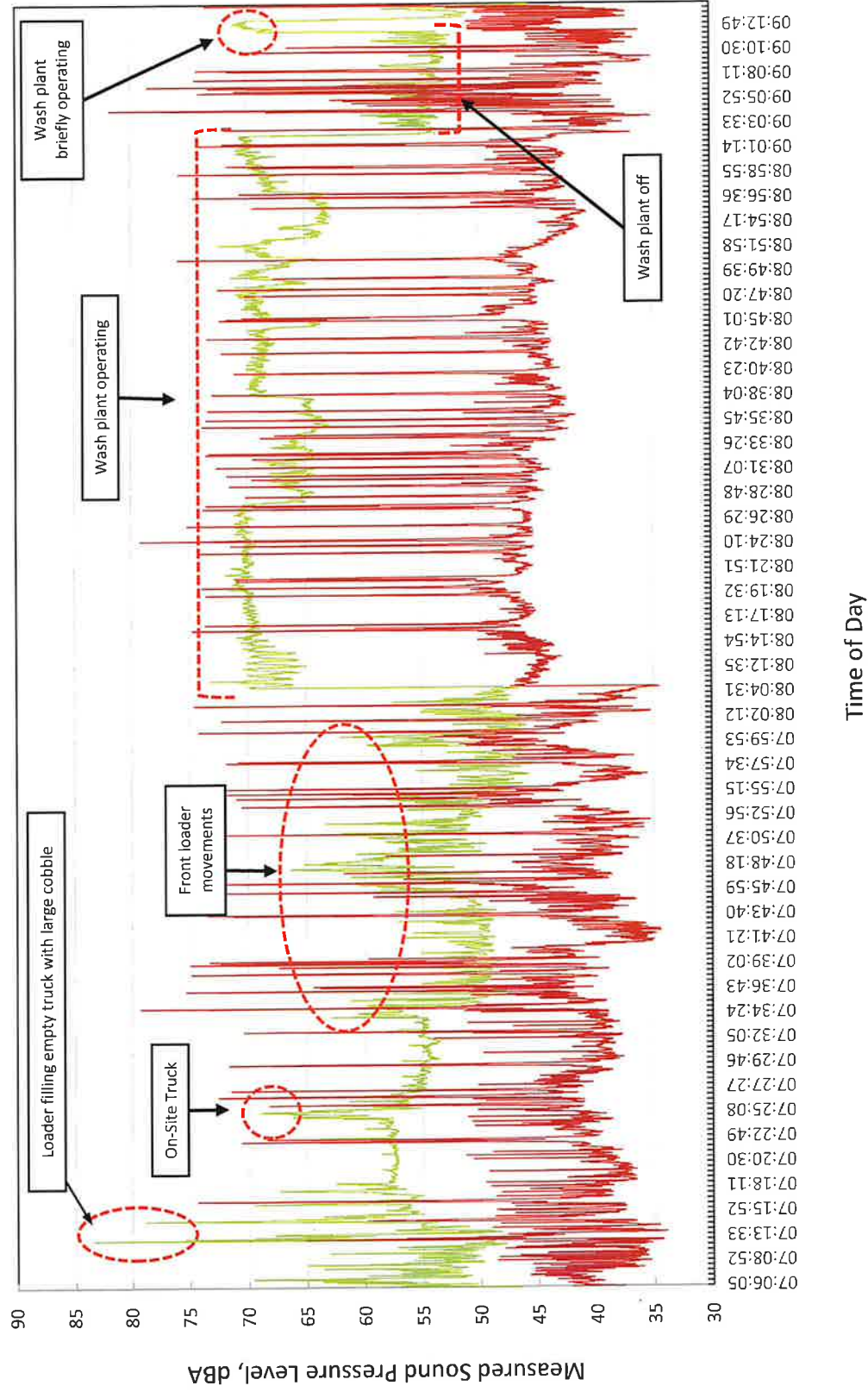


Figure 8
Noise Survey Results: Sites 1 and 7
7 - 9:15 AM, October 19, 2020



Analysis of Noise Survey Results

Site 1: Smith Tailings Site

The noise level data for Site 1 is included in green on each of Figures 3-8 so that the noise-generating activity at the project site could be compared against the noise levels measured at the sensitive receptor locations. Investigation of the Site 1 data indicates that, prior to wash plant startup, the noise generation of mobile equipment and truck loading activities ranged from approximately 50 to 85 dBA. The Site 1 data clearly indicates that the wash plant generated noise levels of 70 dBA during periods when the wash plant was fed with aggregate materials and approximately 65 dBA when the wash plant was operating but without material being fed into the plant. The wash plant operational noise data is shown during the period of approximately 8-9 a.m.

Site 2: Junction City Elementary School

Monitoring Site/Receptor 2 was located on the north side of the Junction City Elementary School property, approximately 95 feet from the center of Red Hill Road. The microphone position was effectively placed at the closest position on the school grounds to the project site and the 95 foot distance to the centerline of Red Hill Road is equivalent to the distance from the centerline of that roadway to the nearest school buildings.

Figure 3 shows the noise measurement results for monitoring Site 2. The data for this location begins at approximately 7:40 a.m. on Monday, October 19, 2020 as this meter could not be set up the previous day. Inspection of the Figure 3 data indicates that the noise levels measured at the school site did not correspond with the noise generation at the project site. Specifically, the noise spikes registered at Site 2 were observed by BAC staff to have been caused by vehicle passbys on Red Hill Road, not on-site activities at the Smith Tailings site. During periods when the wash plant was operating, the noise levels measured at the school site varied from 42 dBA to approximately 70 dBA. Had the school noise environment been directly affected by on-site activities at Smith Tailings the measured noise levels would have been more uniform at the school site during the periods when the wash plant generated uniform noise levels.

From the Figure 3 data it can be deduced that the wash plant operations resulted in noise levels of approximately 43 dB or less at the school site. In addition, during the period when the front-loader operations generated a maximum noise level of 67 dBA at the project site, the corresponding noise level measured at the school site was approximately 50 dBA, but it is not certain that the measured level of 50 dBA L_{max} was caused by the front-loader operations. This is because BAC staff observations noted that operations at the Smith Tailings site were indistinguishable at the school site.

Site 3: Gonpa Facility Lodging

Monitoring Site/Receptor 3 was located near a lodging area of the Gonpa facility, approximately 1,700 feet from the project site entrance. Figure 4 shows the noise measurement results for monitoring Site 3. Inspection of the Figure 4 data indicates that the noise levels measured at this receptor generally tended to mirror the noise generation measured at the project site (Site 1), but at lower levels due to the increased distance.

From the Figure 4 data it can be deduced that the wash plant operations resulted in noise levels of approximately 40-45 dB or less at Site 3. In addition, during the period when the front-loader filled an empty haul truck (7:13 a.m.), the measured maximum noise level at Site 3 was 65 dBA L_{max} . Although the Smith Tailings project noise generation was audible at Receptor 3, the measured levels were below the County's daytime average and maximum noise level standards of 55 dB L_{eq} and 75 dB L_{max} .

Site 4: Nearby Residence north of Gonpa Facility

Monitoring Site/Receptor 4 was located near a residence located approximately 1,800 feet west of the project site entrance. Figure 5 shows the noise measurement results for monitoring Site 4. Inspection of the Figure 5 data indicates that the noise levels measured at this receptor also generally tended to mirror the noise generation measured at the project site (Site 1), but at lower levels due to the increased distance.

From the Figure 5 data it can be deduced that the wash plant operations resulted in noise levels of approximately 50 dB L_{eq} at Site 4. In addition, during the period when the front-loader filled an empty haul truck (7:13 a.m.), the measured maximum noise level at Site 4 was approximately 68 dBA L_{max} . Although the Smith Tailings project noise generation was audible at Receptor 4, the measured levels were below the County's daytime average and maximum noise level standards of 55 dB L_{eq} and 75 dB L_{max} .

Site 5: Nearby Residence

Monitoring Site/Receptor 5 was located adjacent to a residence located approximately 1,400 feet west of the project site. Figure 6 shows the noise measurement results for monitoring Site 5. Inspection of the Figure 6 data indicates that the noise levels measured at this receptor also generally tended to mirror the noise generation measured at the project site (Site 1), but at slightly lower levels due to the increased distance. It should be noted that measurement Site 5 had an essentially unobstructed view of the project site due to its elevated position. As a result, noise levels measured at this site were the highest measured at any of the monitoring locations.

From the Figure 6 data it can be deduced that the wash plant operations resulted in noise levels of approximately 55 – 65 dB L_{eq} at Site 5. In addition, during the period when the front-loader filled an empty haul truck with cobble (7:13 a.m.), an event which reportedly occurs very infrequently, the measured maximum noise level at Site 5 was approximately 78 dBA L_{max} . BAC staff observations indicated that noise generated by the Smith Tailings project was clearly audible at Receptor 5, and that the measured levels attributable to Smith Tailings operations exceeded the County's daytime average and maximum noise level standards of 55 dB L_{eq} and 75 dB L_{max} . As a result, consideration of noise mitigation measures would be required not only for proposed operations but also for current operations.

Because Site 5 was ultimately determined to be the location where the highest measured sound levels from Smith Tailings were recorded, BAC prepared additional graphs of the noise generation of individual equipment types & operations as measured at Site 5. Those graphs, which are shown in Appendix D, include the noise generation of loaders feeding the grizzly, loader movements, backblading operations, excavator movements and excavator operations.

As indicated in Appendix D, measured maximum noise levels did not exceed the 75 dB L_{max} noise standard at this worst-case location (Site 5) during any of these typical operations. Furthermore, computed average hourly noise levels associated with these operations and equipment were also determined to be below the daytime 55 dB L_{eq} noise standard at measurement Site 5. As a result, no additional noise mitigation measures would be warranted for these activities.

Site 6: Nearby Residence

Monitoring Site/Receptor 6 was located adjacent to Red Hill Road, approximately 1,200 feet west of the existing wash plant. Figure 7 shows the noise measurement results for monitoring Site 6. Inspection of the Figure 7 data indicates that the noise levels measured at this receptor also generally tended to mirror the noise generation measured at the project site (Site 1), but also included considerable noise generated by vehicle passbys on Red Hill Road. It should be noted that measurement Site 6, although closer to the project site than Site 5, had an obstructed view of the project site due to intervening tailings piles.

From the Figure 7 data it can be deduced that the wash plant operations resulted in noise levels of approximately 50-55 dB L_{eq} at Site 6. In addition, during the period when the front-loader filled an empty haul truck (7:13 a.m.), the measured maximum noise level at Site 6 was approximately 78 dBA L_{max} . BAC staff observations indicated that noise generated by the Smith Tailings project was clearly audible at Receptor 6, and that the measured maximum noise levels attributable to Smith Tailings operations exceeded the County's daytime maximum noise level standard of 75 dB L_{max} during the filling of the empty haul truck. As a result, consideration of noise mitigation measures would be required not only for proposed operations but also for current operations.

Site 7: Nearby Residence

Monitoring Site/Receptor 7 was located adjacent to Red Hill Road, approximately 1,200 feet west of the existing wash plant. Figure 8 shows the noise measurement results for monitoring Site 7. Inspection of the Figure 8 data indicates that the noise levels measured at this receptor also generally tended to mirror the noise generation measured at the project site (Site 1), but at considerably lower levels due to shielding by intervening tailings piles. In addition, this site also included considerable noise generated by vehicle passbys on Red Hill Road.

From the Figure 8 data it can be deduced that the wash plant operations resulted in noise levels of approximately 45-50 dB L_{eq} at Site 7. In addition, during the period when the front-loader filled an empty haul truck (7:13 a.m.), the measured maximum noise levels at Site 7 were below 65 dBA L_{max} . BAC staff observations indicated that noise generated by the Smith Tailings project was less audible at Receptor 7, and that the measured average and maximum noise levels attributable to Smith Tailings operations satisfied the County's daytime average and maximum noise level standards of 55 dB L_{eq} and 75 dB L_{max} .

Noise Generation of Project Generated Heavy Truck Traffic

As noted previously, heavy truck traffic at the project site was extremely limited during the morning of the noise surveys. As a result, it was necessary to model the noise generation of typical project heavy truck traffic in order to properly assess the noise impacts of the project.

Trinity Sand and Gravel maintains a log of all aggregate sales from the site. According to scale-house data provided by Trinity Sand and Gravel, the facility generated 1409 heavy truck loads between January 8 and December 20, 2020. Because each load involves a haul truck arriving empty and departing loaded, 1409 heavy truck loads computes to 2818 heavy truck trips during that 11 month period (239 days of operations). The average number of heavy truck trips per day computes to 12 truck trips per day. However, because aggregate operations fluctuate, during some days no heavy truck trips were generated whereas during the busiest day of the year (June 2, 2020), 126 heavy truck trips were generated. The average of the busiest days in each month of 2020 computes to 36 heavy truck trips per day. This number of heavy truck trips generated in a given day was used to conservatively assess average daily heavy truck trip noise generation. To predict absolute worst-case heavy truck trip noise generation of the facility, 126 daily heavy truck trips were assumed.

To convert daily heavy truck trips to hourly trips, the daily volumes described above were divided by the number of working hours in a typical day (11 hours per day between 7 a.m. and 6 p.m.). The resulting average and maximum hourly heavy truck trip generation computes to 3.3 and 11.5 heavy truck trips per hour.

To predict the noise generation of project heavy truck trips operating on Red Hill Road, the Federal Highway Administration Highway Traffic Noise Prediction Model was used with the operational information described above and a conservative speed estimate of 45 mph for heavy trucks on Red Hill Road.

The results of the off-site project heavy truck noise predictions at the nearest potentially affected representative sensitive receptors are shown below in Table 3.

Table 3
Predicted Project Heavy Truck Traffic Noise Levels¹
Trucks Operating on Red Hill Road²

Receptor ³	Distance to Centerline (ft) ⁴	Noise Standard ⁵	Predicted Noise Level, dB		Standard Exceeded?
			126 Trips / Day ⁶	36 Trips / Day ⁷	
2	95	45 Leq (interior) ⁸	34 Leq ⁹	30 Leq	No
3	1,600	60 Ldn (exterior)	34 Ldn	28 Ldn	No
4	1,200	60 Ldn (exterior)	36 Ldn	31 Ldn	No
5	1,100	60 Ldn (exterior)	38 Ldn	33 Ldn	No
6	200	60 Ldn (exterior)	50 Ldn	45 Ldn	No
7	75	60 Ldn (exterior)	58 Ldn	52 Ldn	No
<ol style="list-style-type: none"> 1. Source: FHWA-RD-77-108. 2. Noise generated by project truck traffic while operating on the Smith Tailings site is subject to different noise standards. See Table 4 for predicted heavy truck traffic noise generated by on-site operations. 3. Receptor locations are shown on Figure 1. 4. The distance was measured from the receptor location to the centerline of Red Hill Road even in cases where the receptor is located north of the project site access and would not likely experience significant project traffic. 5. These County noise standards are applicable to the interior spaces of schools and outdoor spaces of residences for traffic on public roadways. Noise generated by project traffic while operating on the project site is subject to a different noise standard (See Table 4). 6. A maximum of 126 heavy truck trips per day was based on the single highest day of production during 2020. 7. An average of 36 project heavy trucks per day represents a conservative assumption based on the average of the highest day of heavy truck trip generation for each month of 2020. 8. The 45 dB hourly average noise level standard applicable to school uses is applied inside the school buildings. 9. To predict interior noise levels inside the school building, the school building façade was conservatively assumed to provide 20 dB of exterior to interior traffic noise reduction. 					

The heavy truck noise generation while the trucks are operating within the Smith Tailings project site boundaries would be different than the noise generation of project heavy trucks on Red Hill Road, but not appreciably so. This is because the decreased tire noise associated with the lower truck speeds while on-site would essentially be offset by the increased noise associated with higher engine rpms and acceleration while on site. According to the FHWA Model, heavy truck noise generation at 25 mph is only 1 dB lower than heavy truck noise generation at 45 mph. As a result, on-site heavy truck hourly average noise levels were modelled conservatively assuming a speed of 45 mph to provide a margin of safety. In addition, based on extensive BAC noise measurement data for slow-moving heavy truck operations, a maximum noise level of 75 dBA was conservatively assumed for project heavy truck at a distance of 100 feet from the operating truck. The distances from the on-site heavy truck circulation areas to the representative sensitive receptors evaluated in this study were scaled from aerial imagery.

The noise generated by on-site heavy truck operations are subject to the County's stationary noise source standards shown in Table 1. Specifically, the daytime noise level standards applicable to this project are 55 dB L_{eq} and 75 dB L_{max} at outdoor activity areas of sensitive receptor locations. Table 4 shows the predicted average and maximum noise levels generated by project heavy trucks while operating on the Smith Tailings site.

Table 4
Predicted Project Heavy Truck Traffic Noise Levels¹
Trucks Operating within the Smith Tailings Project Site²

Receptor ³	Distance to On-Site Trucks (ft) ⁴	Predicted Maximum Noise Level (L _{max} , dBA)	Predicted Average Hourly Noise Level, (Leq, dBA)		Standard Exceeded?
			126 Trips / Day ⁵	36 Trips / Day ⁶	
2	1900	49	29	24	No
3	1700	50	30	25	No
4	1800	50	29	24	No
5	2100	49	28	23	No
6	1300	53	32	27	No
7	1200	53	33	28	No
^{1.} Source: FHWA-RD-77-108 with L _{max} values from BAC file data for slow-moving heavy aggregate trucks. ^{2.} Noise generated by project truck traffic while operating on Red Hill Road is subject to different noise standards. See Table 3 for predicted heavy truck traffic noise on Red Hill Road. ^{3.} Receptor locations are shown on Figure 1. ^{4.} The distance was measured from the receptor location to the nearest point on the project site where heavy truck circulation occurs. ^{5.} A maximum of 126 heavy truck trips per day was based on the single highest day of production during 2020. ^{6.} An average of 36 project heavy trucks per day represents a conservative assumption based on the average of the highest day of heavy truck trip generation for each month of 2020.					

Noise Generation of Proposed Crushing/Screening Plant

Extensive BAC file data collected at portable aggregate crushing/screening operations at Northern and Central California aggregate facilities indicates that the typical noise generation of such facilities is approximately 80 dB Leq and 85 dB L_{max} at a reference distance of 100 feet from the operating plant equipment.

Based on a measured level of 70 dBA Leq at a measurement distance of 250 feet from the wash plant, the noise level at a reference distance of 100 feet also computes to 80 dBA Leq. As a result, it can be concluded that the noise generation of the portable aggregate crushing plant proposed as part of the project would be comparable to the noise-generation of the existing wash plant. When combined, the effective increase in on-site noise generation would be 3 dB over noise levels currently generated by the wash plant alone. This level does not take into account any shielding of the portable rock crushing/screening plant by intervening stockpiles located on the project site.

Summary of Noise Generation during October 19, 2020 Site Visit

This analysis concludes that the project noise exposure at the nearby sensitive receptors to the west varied considerably on the morning of October 19, 2020, but that existing on-site operations (wash plant and loader filling empty truck with cobble), resulted in noise levels which exceeded the County's General Plan noise standards at some of the nearest sensitive receptors

to the project site. The addition of the proposed crushing/screening plant is predicted to result in an additional increase in noise levels generated by on-site activities of approximately 3 dB relative to existing conditions. Project noise exposure would, therefore, also exceed the applicable Trinity County General Plan noise standards and noise mitigation measures would be required. It should be noted that, unless the project operator utilizes different equipment in the future or substantially increases production, future (20-year) project noise levels would be comparable to existing plus project noise generation.

Project heavy truck traffic, both on-site and off-site, was determined to be in compliance with the County General Plan criteria at each of the nearby sensitive receptors, even with conservative assumptions pertaining to average and maximum daily heavy truck trip generation. In light of the noise measurement and analysis results, BAC developed specific noise control measures for the project and shared those recommendations with the applicant in January of this year. Those measures, and the steps taken to implement those measures since January of this year, are described below.

Recommended Noise Mitigation Measures and Implementation

BAC recommended the following noise mitigation measures to the project applicant in January of 2021. Those measures, and the steps the applicant has taken to date to implement those measures, are as follows:

1. Strictly limit all on-site aggregate processing and load-out operations to the hours of 7 a.m. to 6 p.m.

Implementation: The applicant is adhering to these hours of operation.

2. Ensure that all processing area conveyors and other rotating machinery are properly lubricated at all times.

Implementation: The applicant has stated that this is a normal aspect of the operation and will continue.

3. Equip all mobile plant area equipment with acoustic growler-type backup warning systems, rather than conventional tonal backup beepers.

Implementation: The applicant has changed the backup warning devices from the previous "beeper" type to the current "growler" type.

4. Suspend acoustic curtains around the screens of the existing wash plant.

Implementation: The applicant has completed the suspension of acoustic curtains around the wash plant as recommended. Figure 9 shows photographs of the suspended curtains surrounding the loudest component of the wash plant.

5. Once on-site, suspend acoustic curtains around the aggregate processing plant crushers and screen decks (i.e. the loudest components of the processing plant).

Implementation: The applicant has reported that he will implement this measure for the crushing screening plant as recommended once the equipment is on site.

6. When loading empty haul trucks with cobble, develop a method for minimizing the sound of the cobbles impacting the empty metal trailer.

Implementation: The applicant has stated that the loadout of cobble is a very rare

occurrence, representing less than 1% of total sales from the facility. Nonetheless, the applicant has developed a system of placing a layer of sand within the trailer prior to loading the cobbles to significantly dampen the noise generation of the cobble loading.

Figure 9 – Suspended Curtains Installed at Wash Plant



Follow-Up Noise Testing After Implementation of Mitigation Measures

After the applicant had completed the installation of the suspended curtains around the wash plant, BAC staff returned to the site to conduct additional noise monitoring to check the effectiveness of the mitigation. The follow-up testing occurred on March 3, 2021. The measurements were conducted both at the project site and at Receptor 5, which was determined to be the receptor with the highest measured noise levels during the 2020 measurement survey. Because the worst-case location (Site 5) was being monitored during the follow-up testing, it was not necessary to re-test at the other receptor locations tested during the 2020 survey.

During the follow-up testing, the wash plant was operated continuously and multiple trucks were both loaded and unloaded at the site to supplement the truck loading/unloading data captured during the 2020 noise survey. Figure 10 shows the noise measurement results.

The Figure 10 data indicates that the suspension of the acoustic curtains resulted in an approximate 5+ dB reduction in noise levels as measured at the plant site and an even larger reduction if noise levels as measured at Receptor 5. Whereas wash plant noise emissions previously exceeded the County's 55 dB average (L_{eq}) noise standard at Receptor 5 prior to the installation of the acoustic curtains, Figure 10 clearly indicates that levels were reduced to between 40 and 50 dB at Receptor 5 following installation of the curtains, thereby achieving compliance with the County's 55 dB daytime noise standard. No further noise mitigation measures are currently warranted for the wash plant.

In addition to the measurements of the wash plant, BAC staff also conducted several measurements of trucks being loaded and unloaded at the project site, as illustrated in Figure 11. Those measurements were captured within the data illustrated in Figure 10. As shown in Figure 10, the measurements at Site 5, including the wash plant and multiple truck loading, passby, and unloading operations, were all well within compliance of the County's 55 dB L_{eq} and 75 dB L_{max} noise criteria. As a result, no additional noise mitigation measures would be warranted for on-site truck loading or unloading operations, or on-site circulation.

Figure 10
 Noise Measurement Results at Plant Site (Red Data) and Receptor 5 (Blue Data)
 Following Installation of Acoustic Curtains at Wash Plant
 Trinity County Sand & Gravel - March 2, 2021

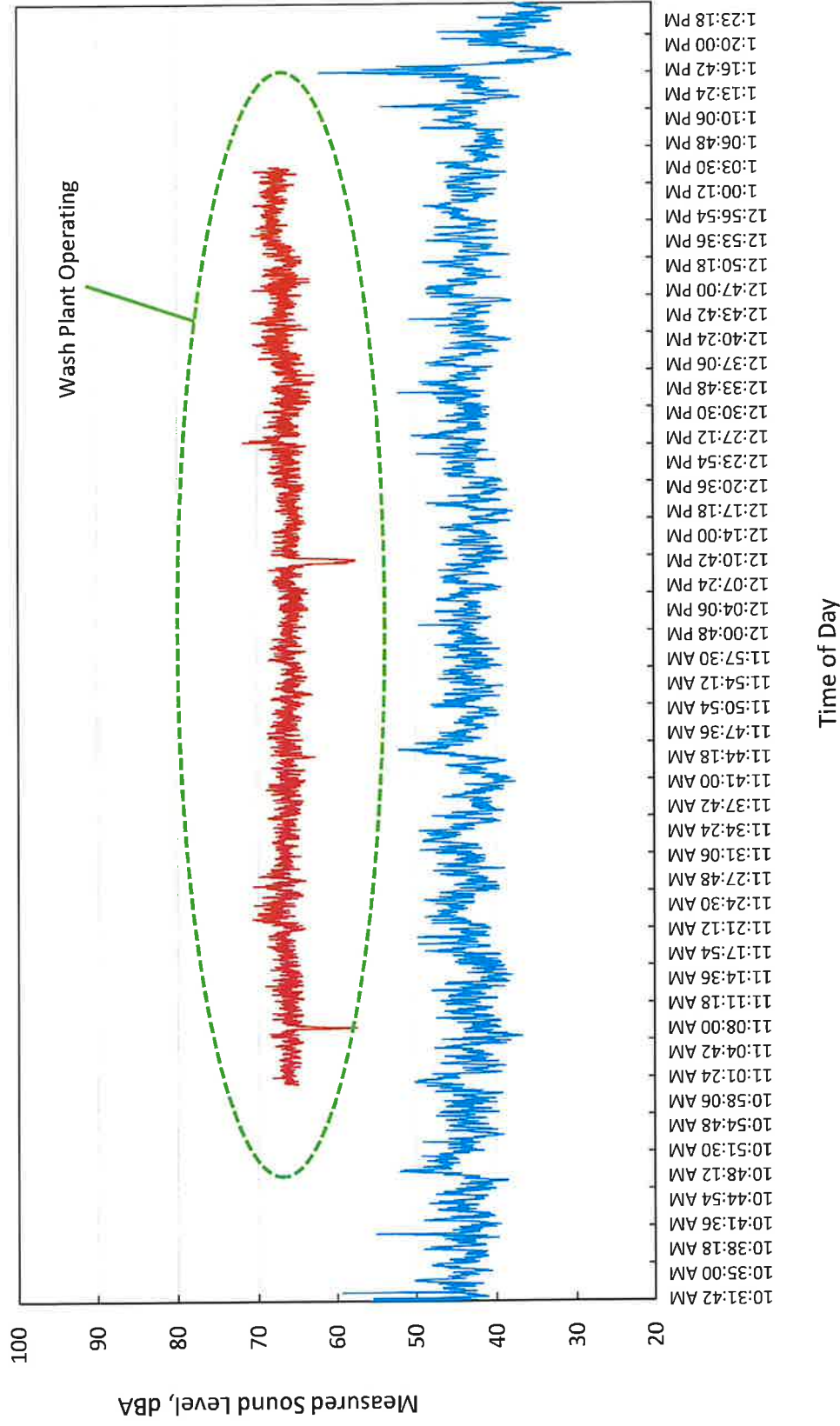


Figure 11 – Additional Truck Loading/Unloading Measurement Photos



Conclusions

This analysis concludes that, following implementation of the noise mitigation measures recommended by BAC to the applicant in January of 2021, and the implementation of those measures, existing noise generation currently satisfies the Trinity County General Plan noise standards. Once the crushing plant is installed, additional acoustic curtains should be suspended around that equipment similar to that already completed for the existing wash plant. Otherwise, no additional noise mitigation measures are required for this operation to achieve compliance with the adopted County noise standards.

This concludes BAC's assessment of potential noise impacts associated with the proposed Smith Tailings operations in Trinity County, California. Please contact BAC at (916) 663-0500 or PaulB@BACnoise.com with any questions regarding this evaluation.

Appendix A Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound. A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
IIC	Impact Insulation Class (IIC): A single-number representation of a floor/ceiling partition's impact generated noise insulation performance. The field-measured version of this number is the FIIC.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
RT₆₀	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
STC	Sound Transmission Class (STC): A single-number representation of a partition's noise insulation performance. This number is based on laboratory-measured, 16-band (1/3-octave) transmission loss (TL) data of the subject partition. The field-measured version of this number is the FSTC.






A



B

Legend

- [A] Site 1 - Stationary Wash Plant Monitoring Site
- [B] Mobile Wash Plant Measurement Site Facing South.  - Site 1

Smith Tailings Project
Trinity County, California

Photographs of Survey Locations

Appendix B-1





Legend

- [A] Site 2 - Sensitive Receptor
- [B] Mobile Wash Plant Measurement Site Facing North
- [C] Mobile Wash Plant Measurement Site Facing West

Smith Tailings Project Trinity County, California

Photographs of Survey Locations

Appendix B-2





Legend

- [A] Dump Trailer Operation
- [B] Heavy Truck and Front Loader Operation
- [C] Front Loader Filling Wash Plant

Smith Tailings Project Trinity County, California

Photographs of Survey Locations

Appendix B-3





Legend

- A Front Loader Filling Dump Trailer
- B Excavator Operation

Smith Tailings Project
Trinity County, California

Photographs of Survey Locations

Appendix B-4



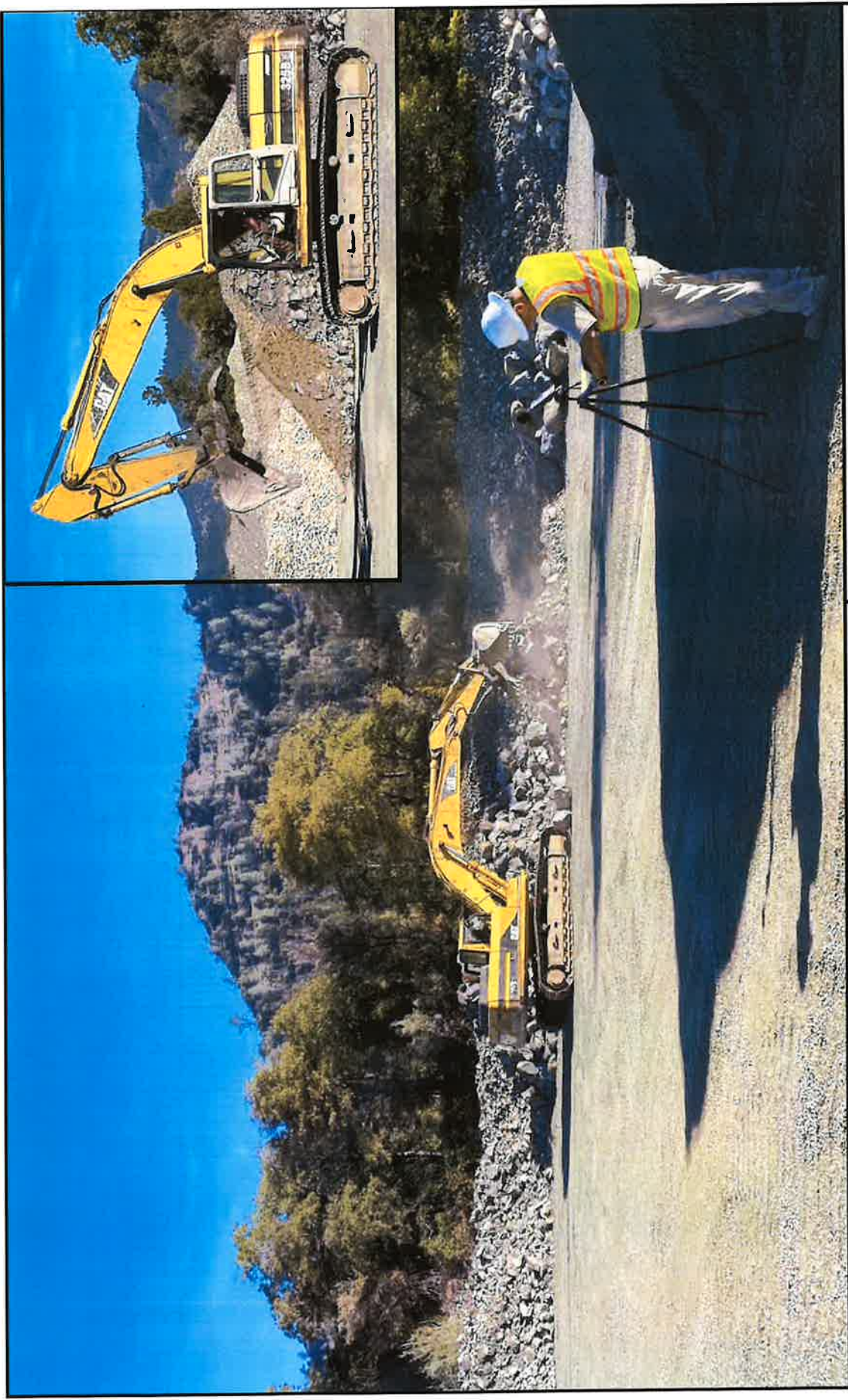


Smith Tailings Project
Trinity County, California
Equipment Photos

Front Loader

Appendix C-1





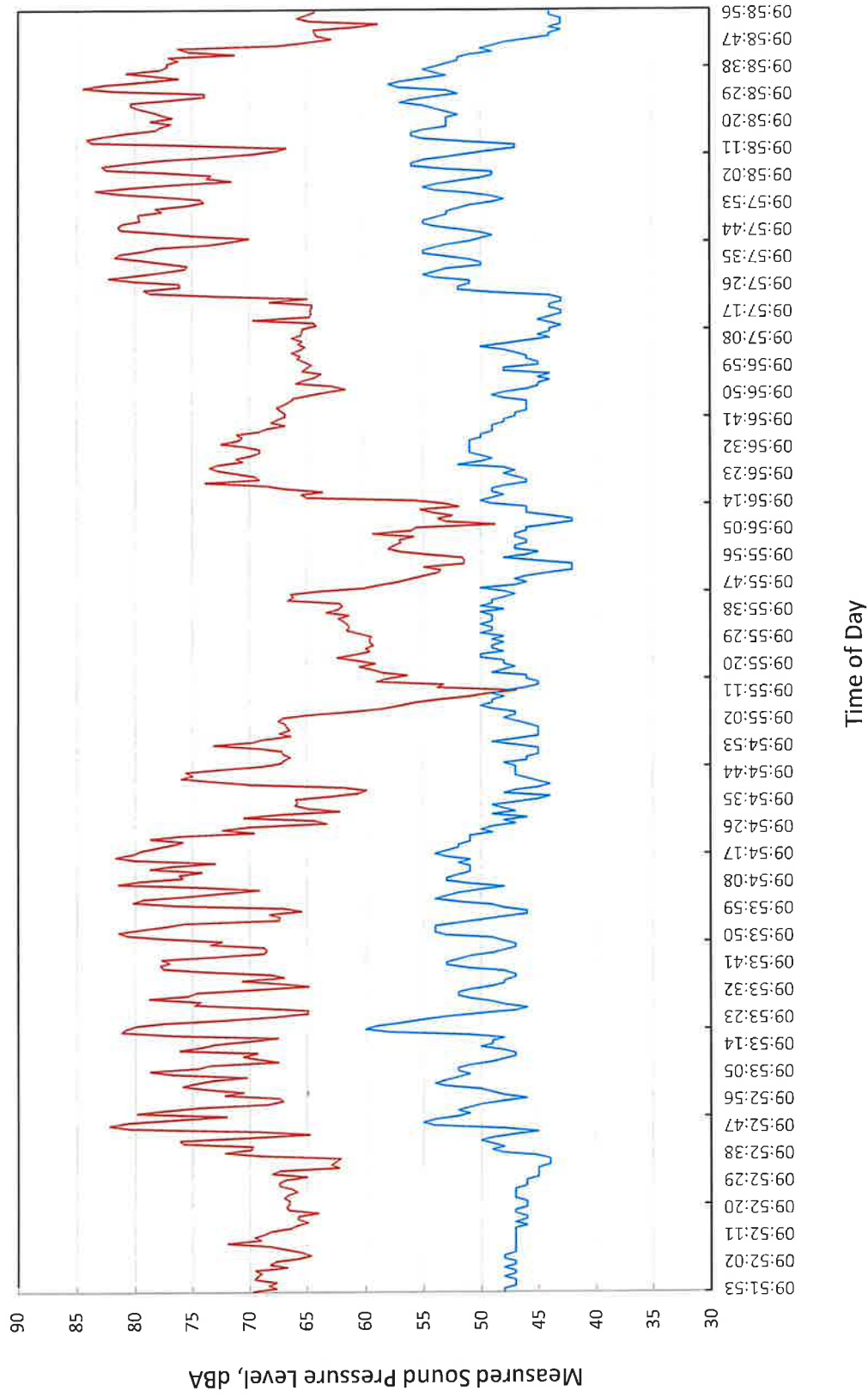
Smith Tailings Project
Trinity County, California
Equipment Photos

Excavator

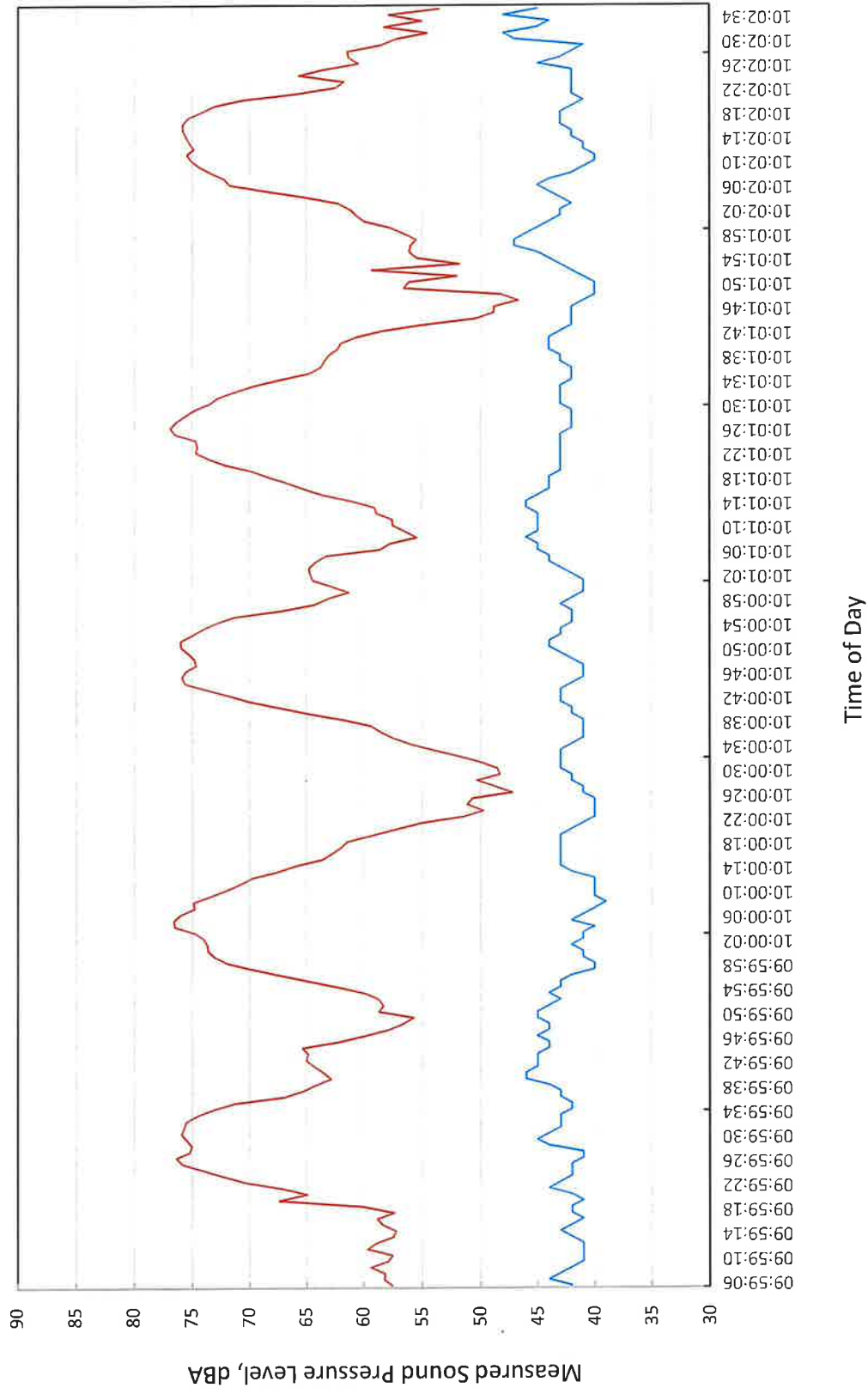
Appendix C-2



Appendix D-1
Noise Measurement Results during 980G Front Loader Dumping Rock on Grizzly Screen
Measured 150 feet from Grizzly (Red Line) and at Receptor 5 (Blue Line - Loudest Location)



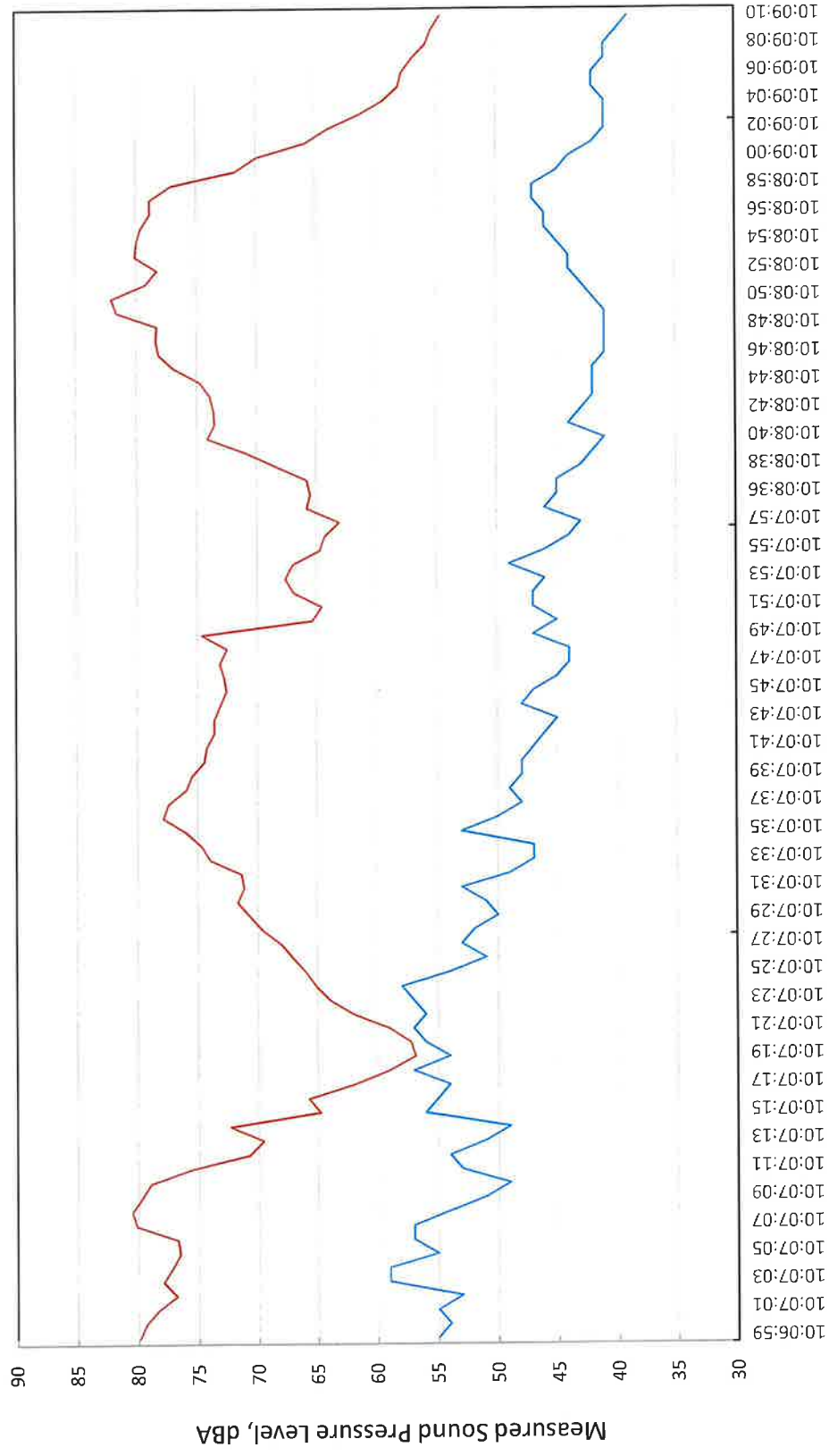
Appendix D-2
Noise Measurement Results during Five 980G Front Loader Passbys
Measured 60 feet from Nearest Passby Location (Red Line) and at Receptor 5 (Blue Line - Loudest Location)



Appendix D-3

Noise Measurement Results during Backblading Operations

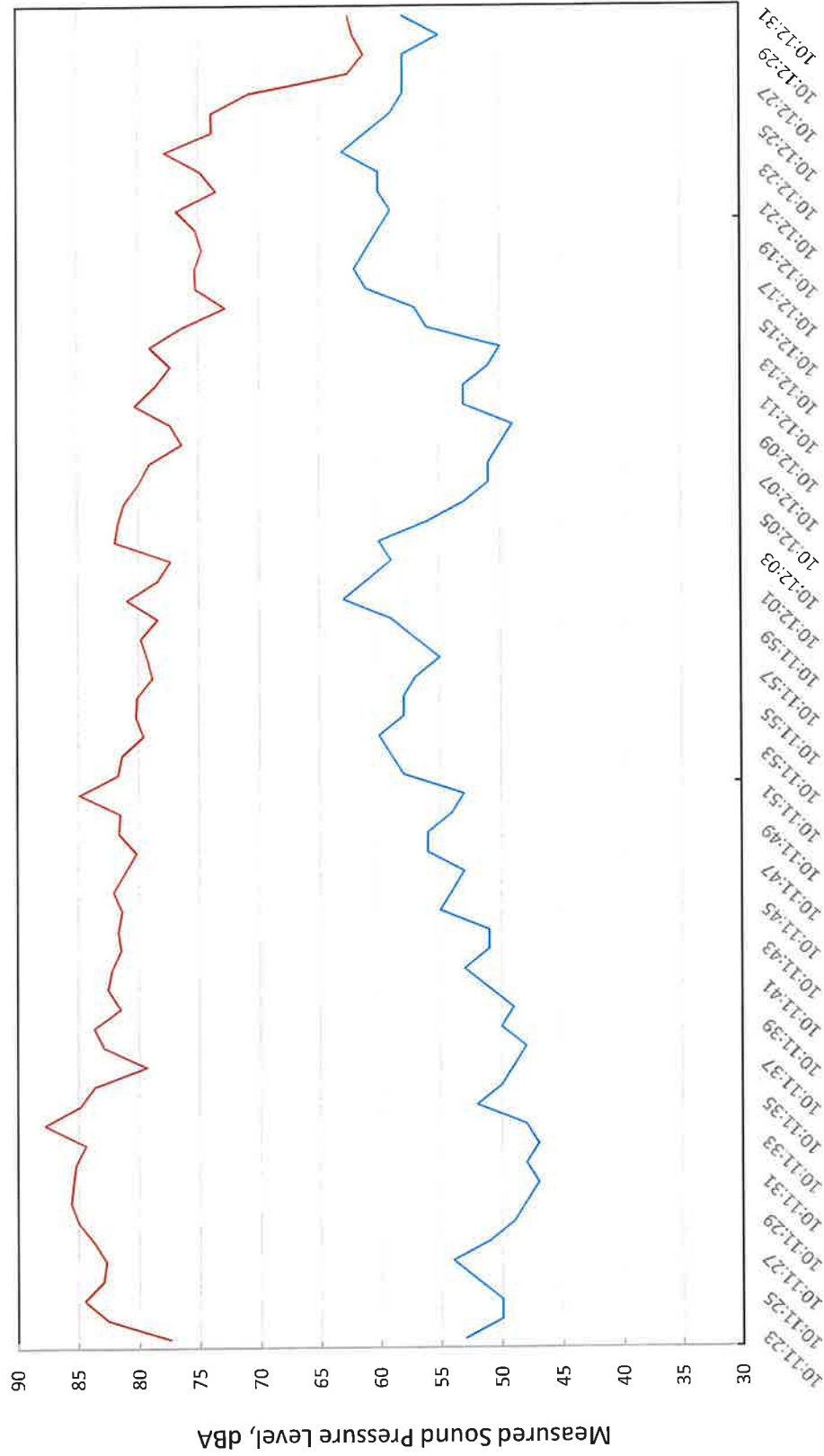
Measured 75 feet from Nearest Passby Location (Red Line) and at Receptor 5 (Blue Line - Loudest Location)



Time of Day



Appendix D-4
 Noise Measurement Results during Excavator Movement
 Measured 65 feet from Nearest Passby Location (Red Line) and at Receptor 5 (Blue Line - Loudest Location)



Time of Day



Appendix D-5
Noise Measurement Results during Excavator Moving Rock
Measured 75 feet from Excavator Operations Location (Red Line) and at Receptor 5 (Blue Line - Loudest Location)

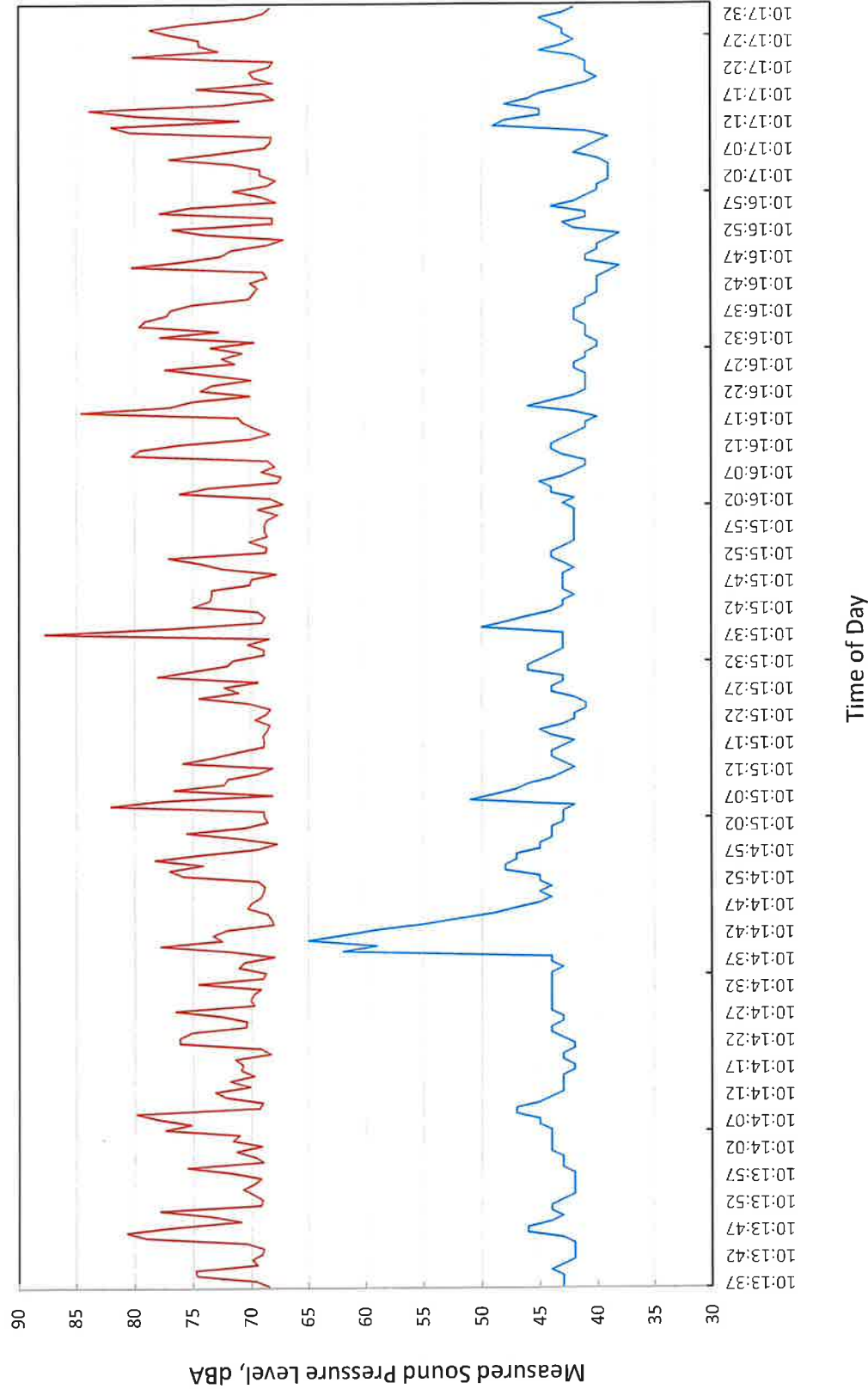


EXHIBIT 3

Noise Analysis Presentation

Smith Pit II Tailings Project

Noise Analysis Presentation - Smith Pit II Tailings Project

Project Area and October 19 Noise Measurement Locations



Noise Analysis Presentation - Smith Pit II Tailings Project

Drone Photo of Site during BAC's Field Visit on October 19



Noise Analysis Presentation - Smith Pit II Tailings Project

Photo of Site 1 during BAC's Field Visit on October 19



Noise Analysis Presentation - Smith Pit II Tailings Project



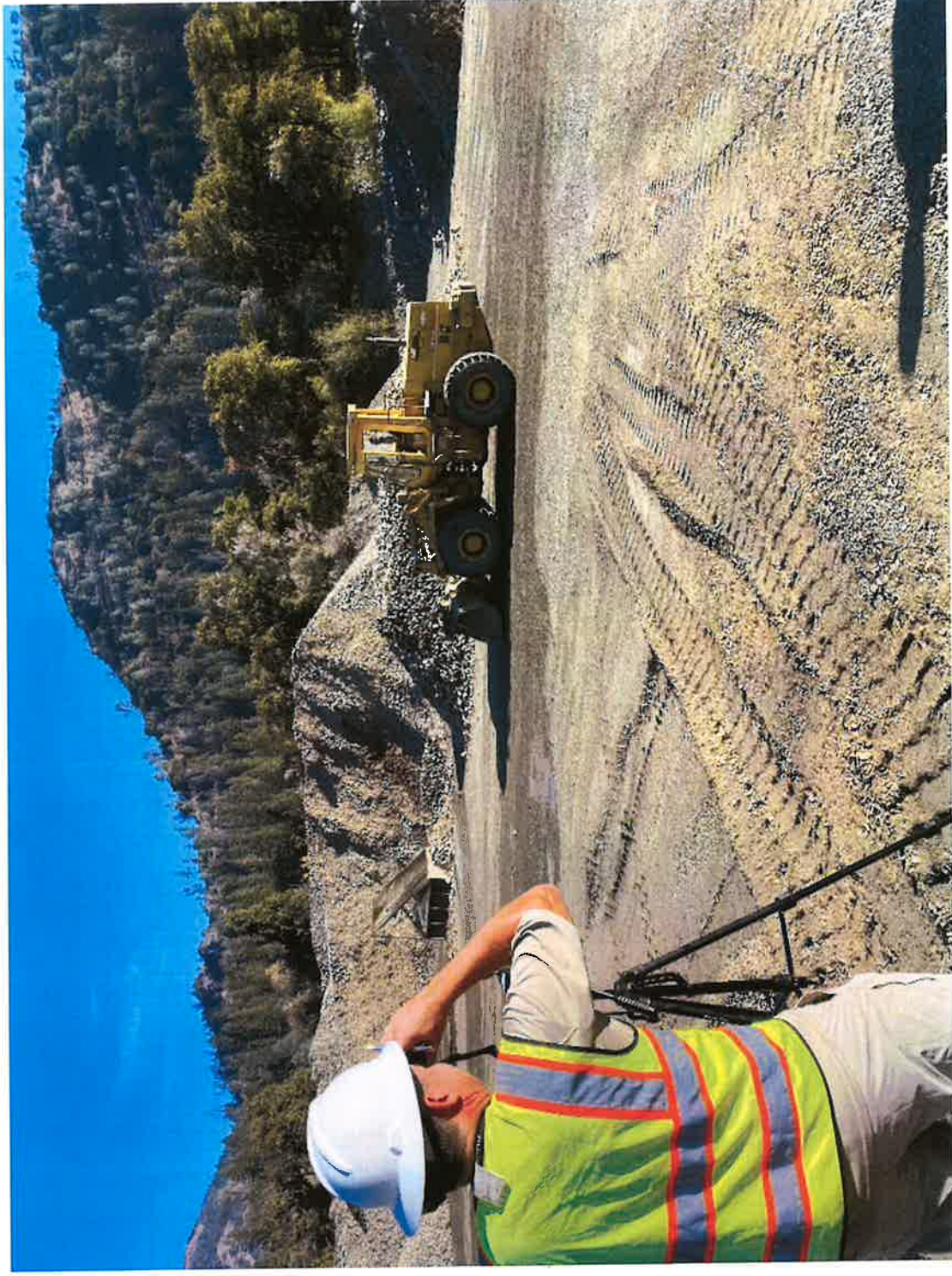
Noise Analysis Presentation - Smith Pit II Tailings Project

Photo of Loader feeding Grizzly Screen



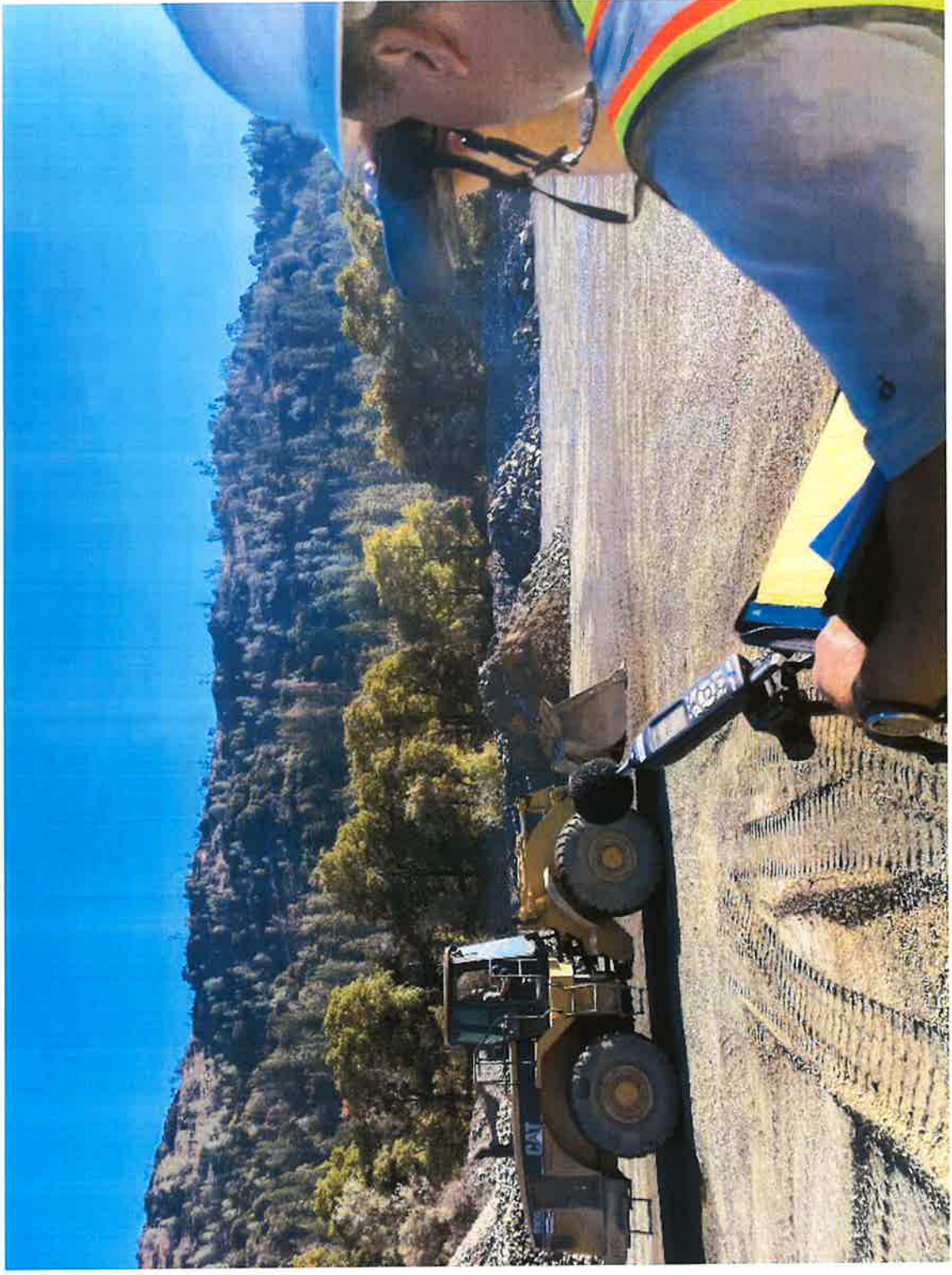
Noise Analysis Presentation - Smith Pit II Tailings Project

Photo of Back-Blading Operations



Noise Analysis Presentation - Smith Pit II Tailings Project

Photo of Front-Loader Passby Operations



Noise Analysis Presentation - Smith Pit II Tailings Project

Photo of Excavator Movements



Noise Analysis Presentation - Smith Pit II Tailings Project

Photo of Excavator Moving Aggregate Materials



Noise Analysis Presentation - Smith Pit II Tailings Project

Photo of Overall Operations

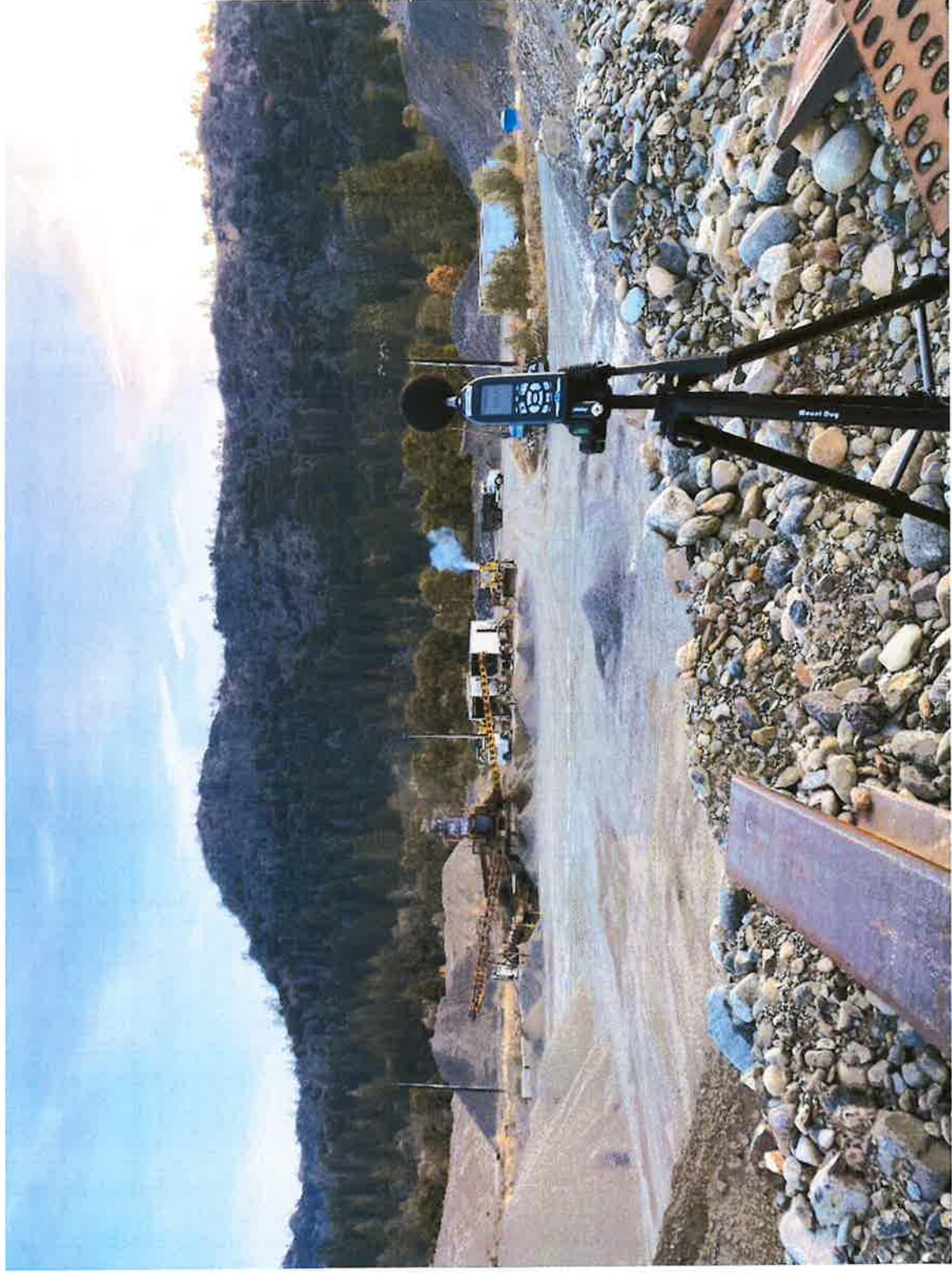


Table 1
Maximum Allowable Noise Exposure - Stationary Noise Sources

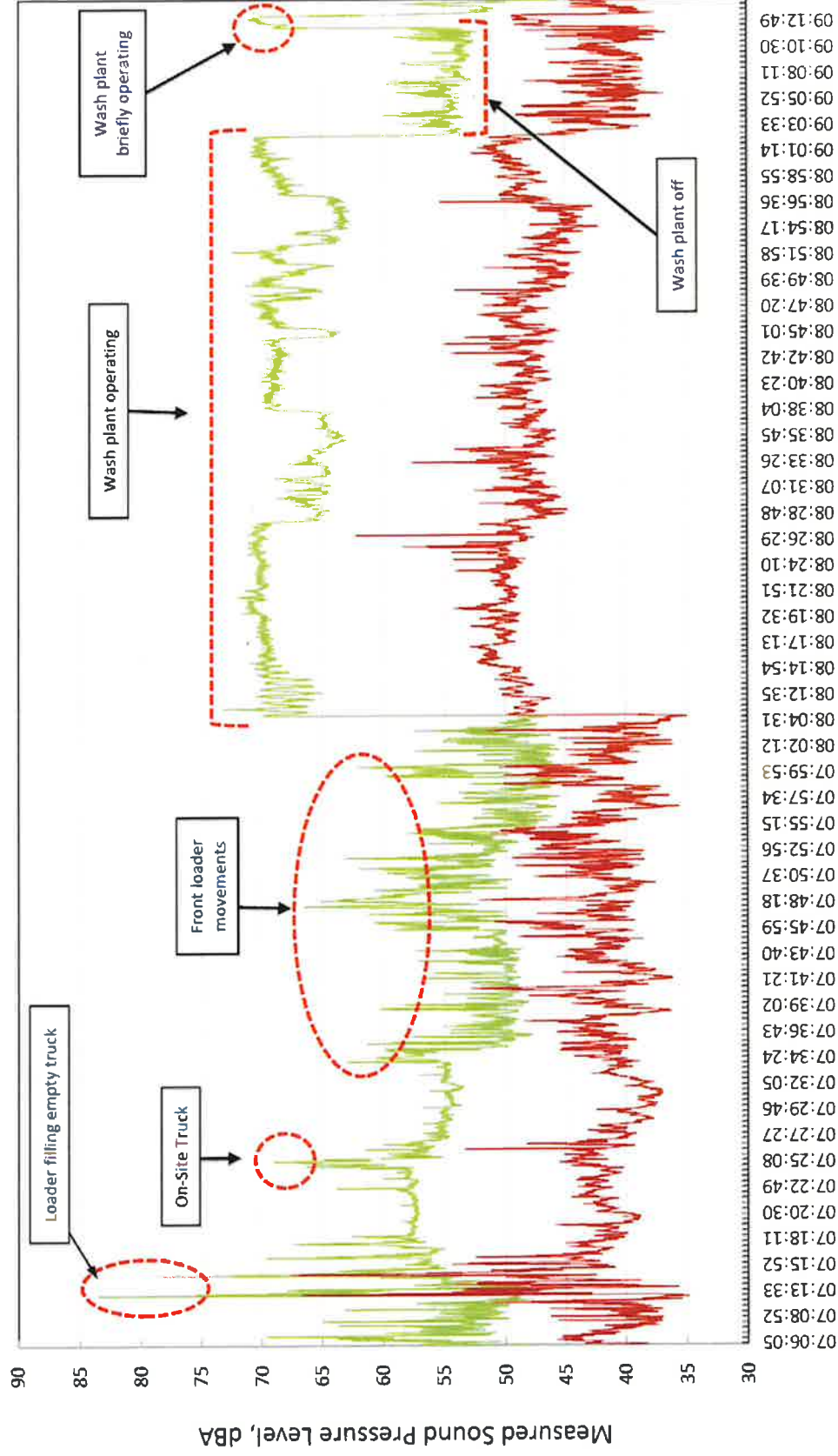
Noise Level Metric	Daytime (7 a.m. to 7 p.m.)	Evening (7 p.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Equivalent Sound Level (Leq), dB	55	50	45
Maximum Sound Level (Lmax), dB	75	70	65

1. As determined at outdoor activity areas. Where the location of the outdoor activity area is unknown or not applicable, the noise standard shall be applied at the property line of the receiving land use.
2. For recurring impulsive noise sources, the allowable maximum (Lmax) noise exposure shall be 70 dBA in the daytime, 65 dBA in the evening, and 60 dB in the nighttime.
3. For noise primarily comprised of speech and/or music, the allowable noise exposure in Table 1 shall be reduced by 5 dB.
4. For noise sources that are found and declared by the Board of Supervisors to be from uses of such importance to the county for economic, environmental enhancement, or movement of goods, services, or people that the allowable noise exposure in Table VII shall be increased by 10 dB.

Source: Trinity County General Plan Noise Element, Table VII, pg. 30.

Noise Analysis Presentation - Smith Pit II Tailings Project

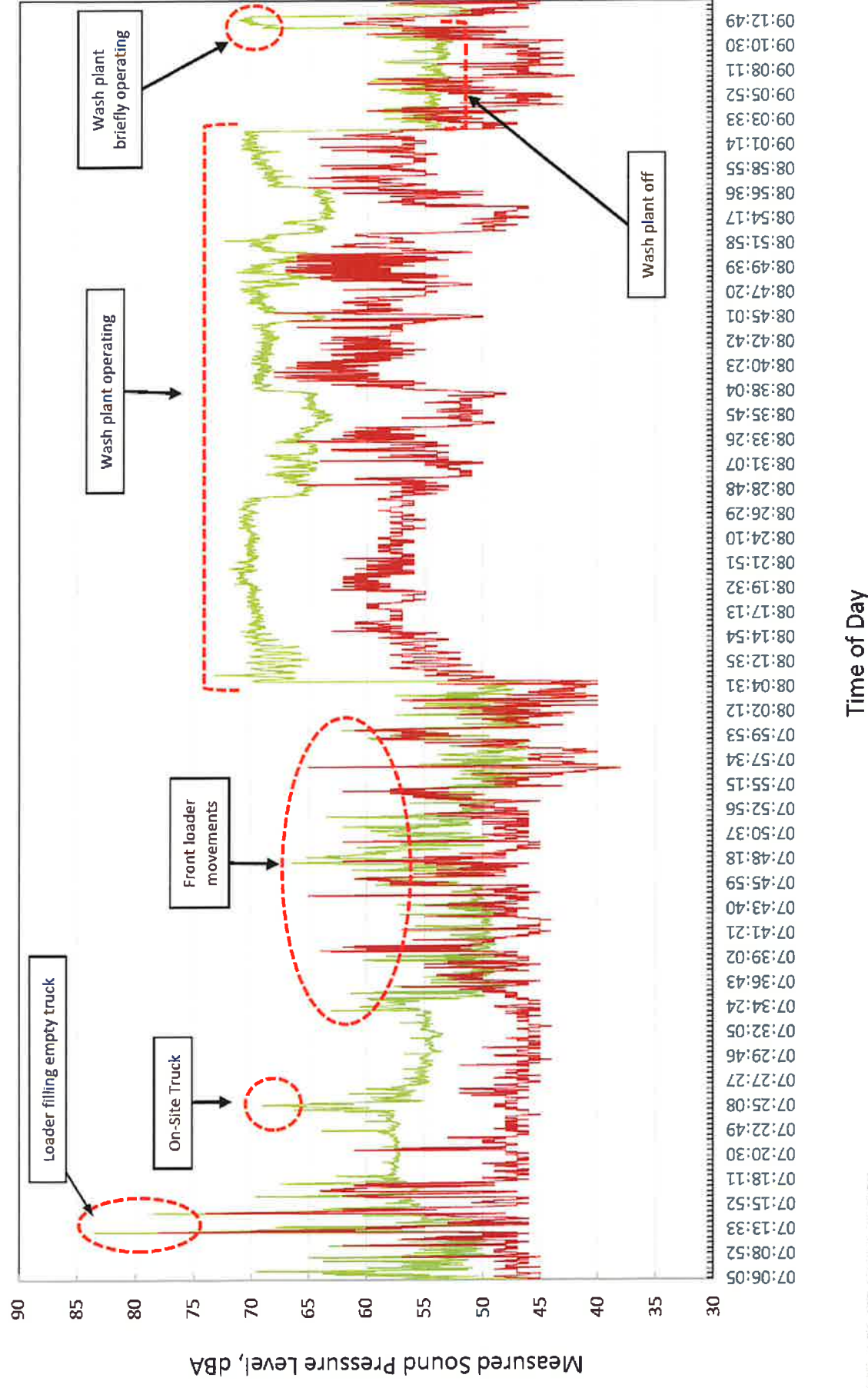
Noise Survey Results: Sites 1 and 4
7 - 9:15 AM, October 19, 2020



Time of Day

Noise Analysis Presentation - Smith Pit II Tailings Project

Noise Survey Results: Sites 1 and 5
7 - 9:15 AM, October 19, 2020



Recommended Noise Mitigation Measures and Implementation

BAC recommended the following noise mitigation measures to the project applicant in January of 2021. Those measures, and the steps the applicant has taken to date to implement those measures, are as follows:

Strictly limit all on-site aggregate processing and load-out operations to the hours of 7 a.m. to 6 p.m.
Implementation: The applicant commits to adhering to these hours of operation.

Ensure that all processing area conveyors and other rotating machinery are properly lubricated at all times.
Implementation: The applicant has stated that this is a normal aspect of the operation and it will continue.

Equip all mobile plant area equipment with acoustic growler-type backup warning systems, rather than conventional tonal backup beepers.
Implementation: The applicant has changed the backup warning devices from the previous “beeper” type to the current “growler” type.

Suspend acoustic curtains around the screens of the existing wash plant.
Implementation: The applicant has completed the suspension of acoustic curtains around the wash plant as recommended.

Recommended Noise Mitigation Measures and Implementation

BAC recommended the following noise mitigation measures to the project applicant in January of 2021. Those measures, and the steps the applicant has taken to date to implement those measures, are as follows:

Strictly limit all on-site aggregate processing and load-out operations to the hours of 7 a.m. to 6 p.m.
Implementation: The applicant is adhering to these hours of operation.

Ensure that all processing area conveyors and other rotating machinery are properly lubricated at all times.
Implementation: The applicant has stated that this is a normal aspect of the operation and will continue.

Equip all mobile plant area equipment with acoustic growler-type backup warning systems, rather than conventional tonal backup beepers.
Implementation: The applicant has changed the backup warning devices from the previous “beeper” type to the current “growler” type.

Suspend acoustic curtains around the screens of the existing wash plant.
Implementation: The applicant has completed the suspension of acoustic curtains around the wash plant as recommended.

Return Trip to Site Following Implementation of Mitigation Measures March 2nd, 2021

Noise Analysis Presentation - Smith Pit II Tailings Project

Wash Plant Curtains Installed



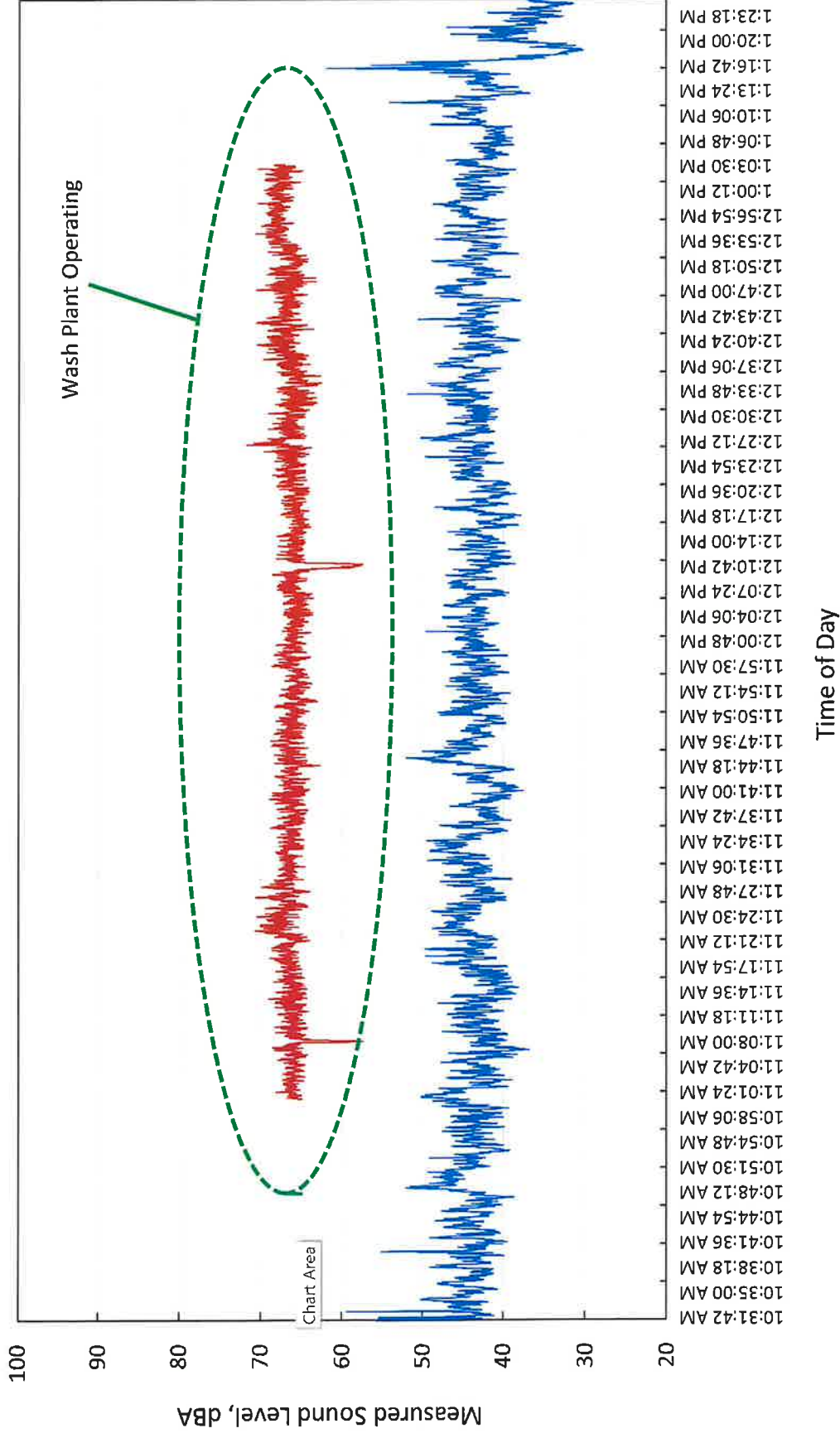
Noise Analysis Presentation - Smith Pit II Tailings Project

Additional Truck Loading / Unloading Data Collected



Noise Analysis Presentation - Smith Pit II Tailings Project

Noise Levels at Site 4 After Plant Curtains Installed



Installation of Curtains Resulted in 5 dBA Reduction in Wash Plant
Noise = Compliance

Return Trip to Site to Conduct Truck Passby Noise Tests

June 18th, 2021

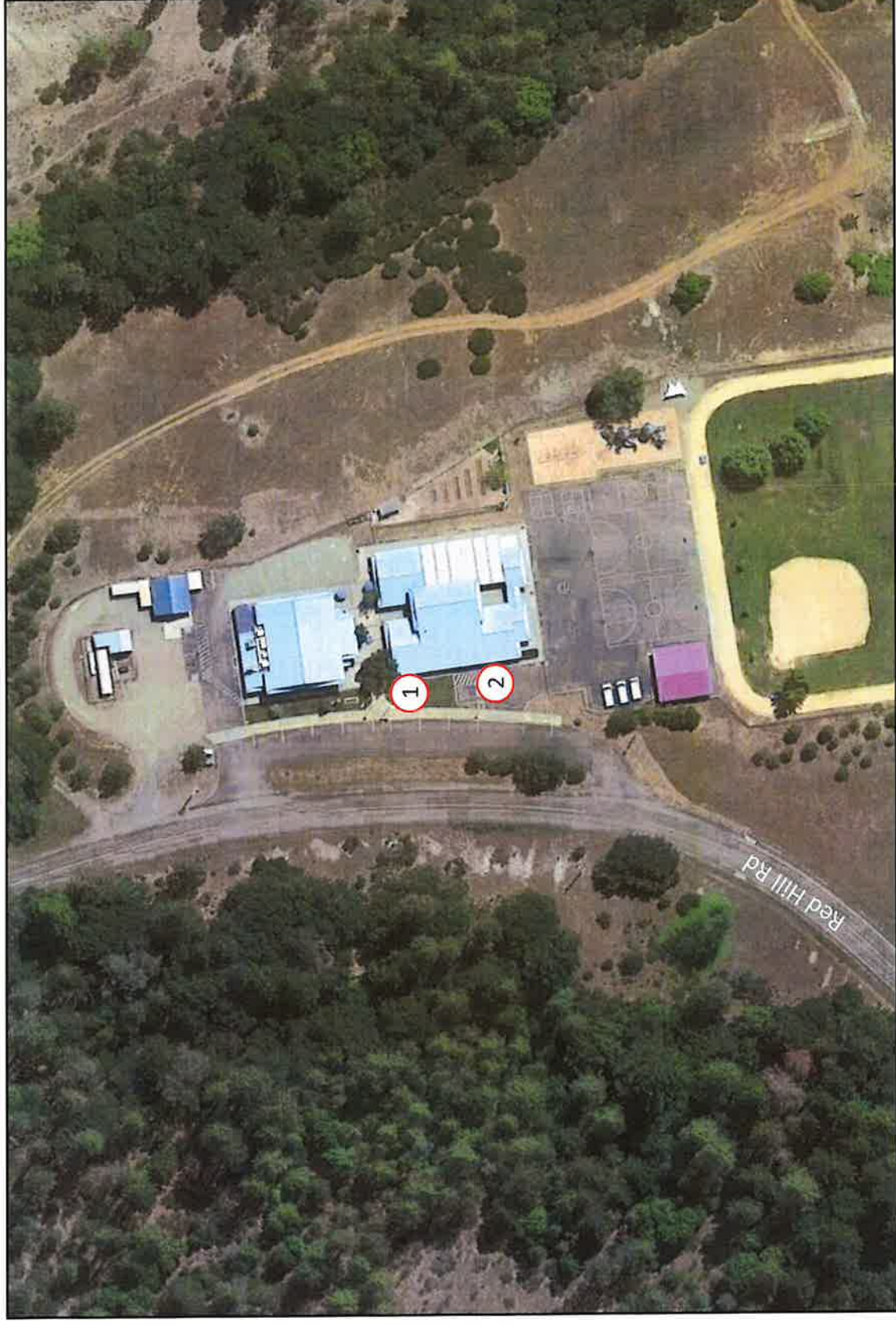
Noise Analysis Presentation - Smith Pit II Tailings Project

Truck Passby Noise Testing – June 18, 2021



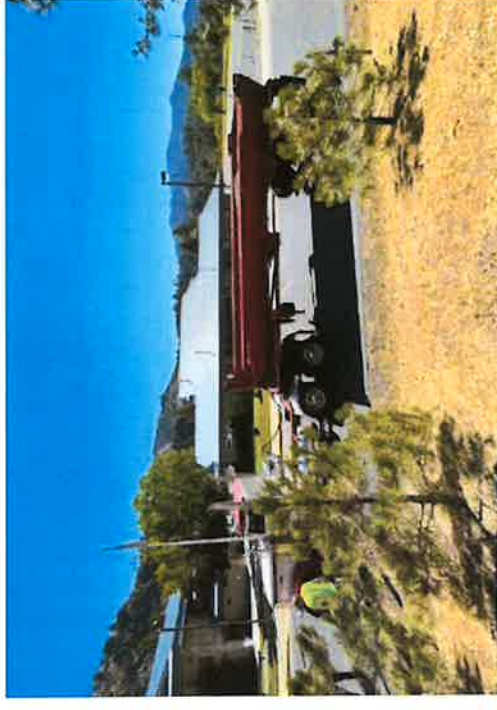
Noise Analysis Presentation - Smith Pit II Tailings Project

Junction City Elementary School Passby Test Locations



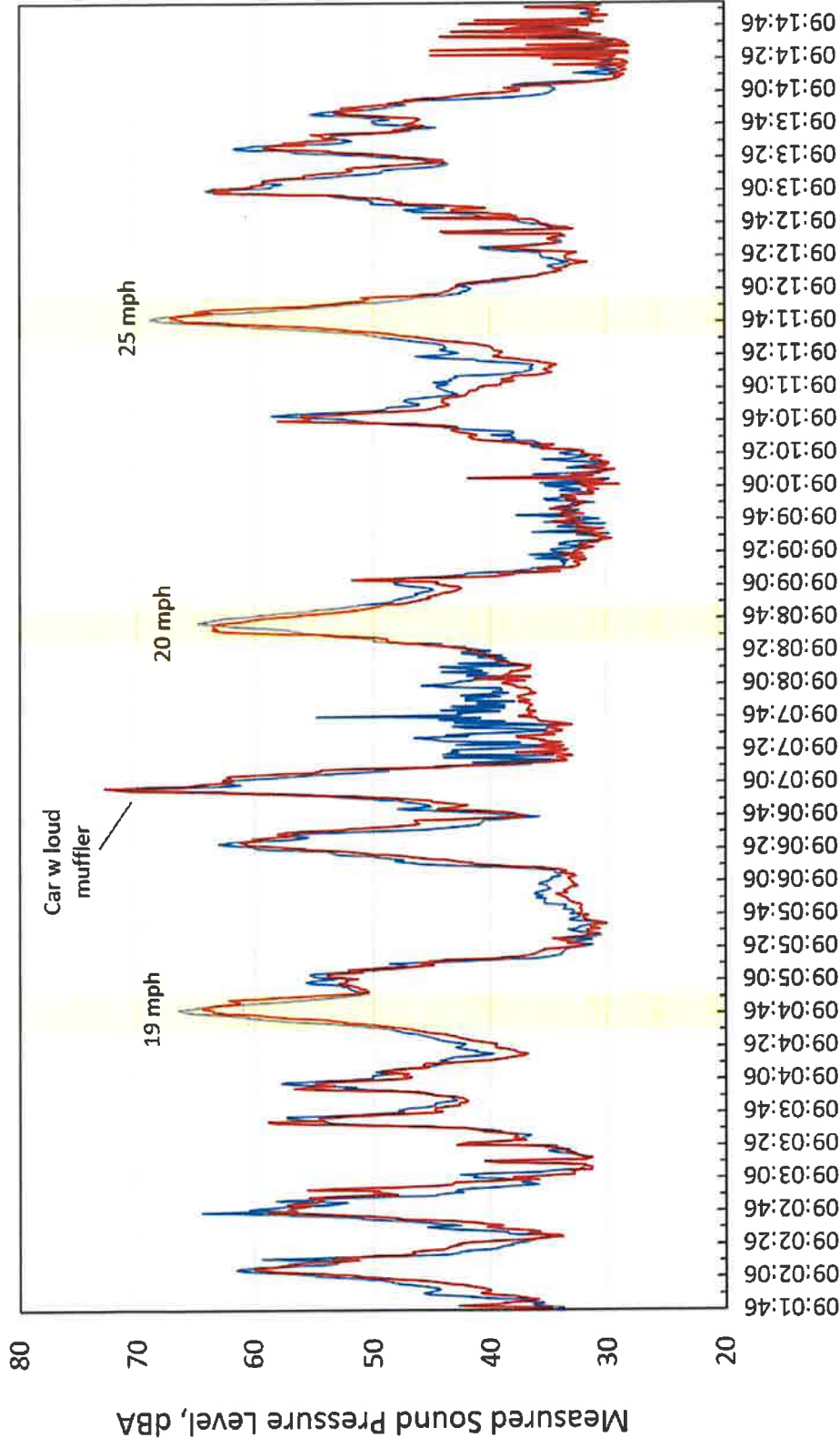
Noise Analysis Presentation - Smith Pit II Tailings Project

- 18 Heavy truck passbys in front of school
 - 10 with truck empty
 - 8 with truck loaded with aggregates
- 9 Passbys northbound/ 9 southbound
- Speeds ranged from 20 to 40 mph – (radar gun)
- Noise measurements conducted at 2 locations

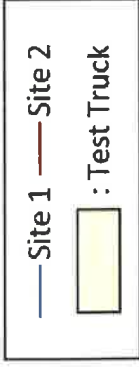


Noise Analysis Presentation - Smith Pit II Tailings Project

Trinity Sand and Gravel
Measured Sound Levels at Junction City Elementary School
Friday June 18, 2021 - 9:00 - 9:15 am

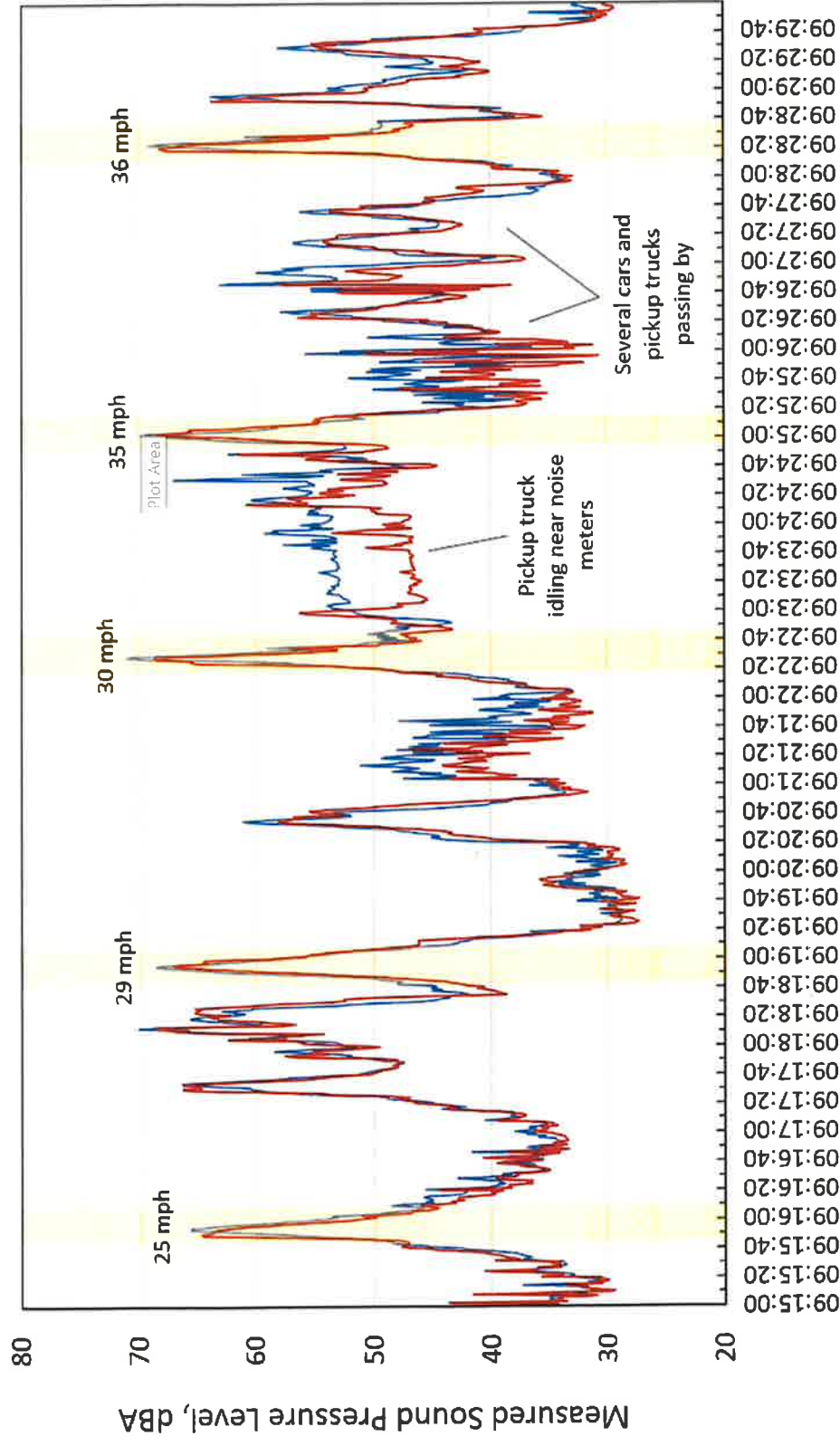


Time of Day



Noise Analysis Presentation - Smith Pit II Tailings Project

Trinity Sand and Gravel
Measured Sound Levels at Junction City Elementary School
Friday June 18, 2021 - 9:15 - 9:30 am

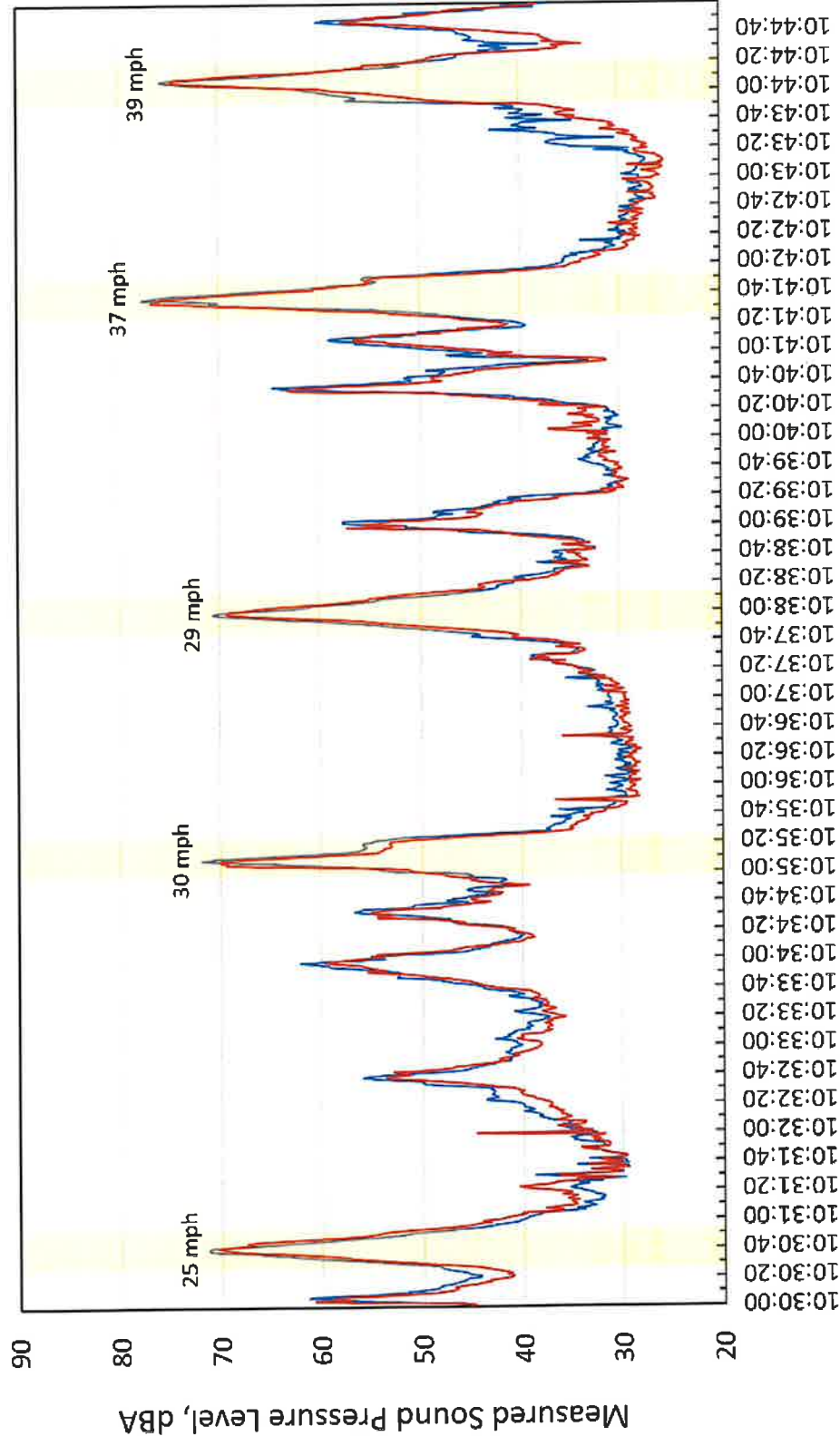


Time of Day



Noise Analysis Presentation - Smith Pit II Tailings Project

Trinity Sand and Gravel
Measured Sound Levels at Junction City Elementary School
Friday June 18, 2021 - 10:30 - 10:45 am



Time of Day

Site 1 Site 2
: Test Truck

Truck Passyby Noise Testing Results

Passby	Direction	Empty/Loaded	Speed	Lmax, dBA
1	Southbound	Empty	19	67
2	Northbound	Empty	20	65
3	Southbound	Empty	25	69
4	Northbound	Empty	25	66
5	Southbound	Empty	29	69
6	Northbound	Empty	30	71
7	Southbound	Empty	35	70
8	Northbound	Empty	36	69
9	Southbound	Empty	39	73
10	Northbound	Empty	40	72
11	Northbound	Loaded	20	66
12	Southbound	Loaded	20	70
13	Northbound	Loaded	26	81
14	Southbound	Loaded	25	71
15	Northbound	Loaded	30	72
16	Southbound	Loaded	29	71
17	Northbound	Loaded	37	78
18	Southbound	Loaded	39	76

Low: 65 dBA
Average: 71 dBA
High: 81 dBA

Analysis of Worst-Case Truck Passby Noise Inside School

Assumptions/Data:

- 126 heavy truck passbys in a day (peak day – June 2, 2020).
- 12 heavy truck passbys in an hour (126/day divided by 11 hours / day).
- Assumed speed = 40 mph.
- School building provides minimum 20 dB of noise reduction.

Results:

- Hourly Average Noise Level (Leq) inside classroom = **34 dBA**
- COUNTY AVERAGE NOISE STANDARD for SCHOOLS = **45 dBA**

Conclusion:

Absolute worst case project truck passby noise is 11 dBA BELOW the County's noise standard inside the school classrooms.

Analysis of Maximum (Lmax) Truck Passby Noise Inside School

Assumptions/Data:

- Maximum noise (Lmax) inside the classroom during truck passby = 45-61 dBA
- Background noise level inside school classroom = 45 dBA (with nobody speaking)
- Teacher speaking in normal to raised voice within classroom: 57-64 dBA*
- Average duration truck passby results in increased noise within classroom (i.e. noise levels above 45 dBA inside classroom: 6 seconds per passby.

Conclusion:

Truck passby noise is at or below typical speaking voice level of teachers and results in increased noise levels within a the classroom when no one is speaking for a very brief duration. As a result, there is no scientific evidence that truck passbys would result in interference with classroom education.

Conclusions

This analysis concludes that, following implementation of the noise mitigation measures recommended by BAC to the applicant in January of 2021, and the implementation of those measures, existing noise generation currently satisfies the Trinity County General Plan noise standards. If a crushing plant is permitted and installed, additional acoustic curtains should be suspended around that equipment similar to that already completed for the existing wash plant (currently not being operated). Otherwise, no additional noise mitigation measures are required for this operation to achieve compliance with the adopted County noise standards.

In addition, worst-case project truck passby noise is well below County noise standards inside school offices and classrooms.

Questions?