

Applicant Memo: Feasibility for Alternate Site

From: [Healey, William](#)
To: [Mary Jeyaprakash](#)
Cc: [Schmidt, Melinda](#); [Smithson, Dawn](#); [Noren Caliva-Lepe](#); [Gonzalez, Salvador](#)
Subject: RE: Additional Items from Planning Commission Hearing
Date: Friday, May 8, 2026 10:25:21 AM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

WARNING - This email came from an EXTERNAL source. Confirm the sender and its contents are safe before responding, opening attachment or links.

Hello,

I believe the last outstanding item is a response clarifying why Cal Water needs to drill a new well at the LAS Sta. 20 property. Here is the response:

The issue is not whether another existing Cal Water station could physically be used for a new well. The issue is that Cal Water has multiple aging wells that will need to be replaced over time and only a limited number of existing stations available for replacement well construction.

There are five active wells in the City and only seven Cal Water stations total. LAS Sta. 20 is not currently supplying water, which makes it better suited for well construction because the work can be completed without disrupting Cal Water's ability to reliably supply water. Cal Water's other stations are currently operating, and drilling a new well at those sites could require taking active facilities out of service.

For these reasons, LAS Sta. 20 is an important site for maintaining long-term supply reliability and fire protection. Removing LAS Sta. 20 from consideration would further limit the number of viable station sites available for future well replacement work and could make it more difficult to replace aging wells while maintaining reliable service.

Thanks,

William Healey, P.E.

P-3 Project Engineer

CALIFORNIA WATER SERVICE

+1 (213) 5769867



Quality. Service. Value.

calwater.com

From: Mary Jeyaprakash <MJeyaprakash@sunnyvale.ca.gov>

Sent: Thursday, May 7, 2026 11:58 AM

800 Carlisle Way Well & Water Tank Project Preliminary Noise and Vibration Monitoring Plan

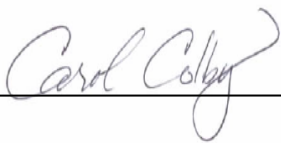
June 12, 2026

Prepared for:

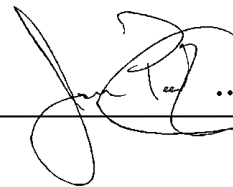
California Water Service Company
2632 W. 237th Street
Torrance, CA 90505

Prepared by:

Behrens and Associates, Inc.
2320 Alaska Avenue
El Segundo, California 90245



Carol Colby
Acoustical Engineer



Jason Peetz
Engineering Manager

Behrens and Associates, Inc.

Environmental Noise Control

1. Introduction

The following Noise and Vibration Monitoring Plan was developed to outline the noise and vibration monitoring procedure for the 800 Carlisle Way Well & Water Tank Project (Project). This plan is for monitoring the water well drilling operations at the 800 Carlisle Way Well & Water Tank Project in Sunnyvale, California. The location of the Project site is shown in Figure 1-1



Figure 1-1 Project Site Location

Behrens and Associates, Inc.

Environmental Noise Control

1.1 Noise Fundamentals

Sound is most commonly experienced by people as pressure waves passing through air. These rapid fluctuations in air pressure are processed by the human auditory system to produce the sensation of sound. The rate at which sound pressure changes occur is called the frequency. Frequency is usually measured as the number of oscillations per second or Hertz (Hz). Frequencies that can be heard by a healthy human ear range from approximately 20 Hz to 20,000 Hz. Toward the lower end of this range are low-pitched sounds, including those that might be described as a “rumble” or “boom”. At the higher end of the range are high-pitched sounds that might be described as a “screech” or “hiss”.

Environmental noise generally derives, in part, from a combination of distant noise sources. Such sources may include common experiences such as distant traffic, wind in trees, and distant industrial or farming activities. These distant sources create a low-level “background noise” in which no particular individual source is identifiable. Background noise is often relatively constant from moment to moment, but varies slowly from hour to hour as natural forces change or as human activity follows its daily cycle.

Superimposed on this low-level, slowly varying background noise is a succession of identifiable noisy events of relatively brief duration. These events may include the passing of single-vehicles, aircraft flyovers, screeching of brakes, and other short-term events. The presence of these short-term events causes the noise level to fluctuate. Figure 1-2 presents typical indoor and outdoor sound levels.

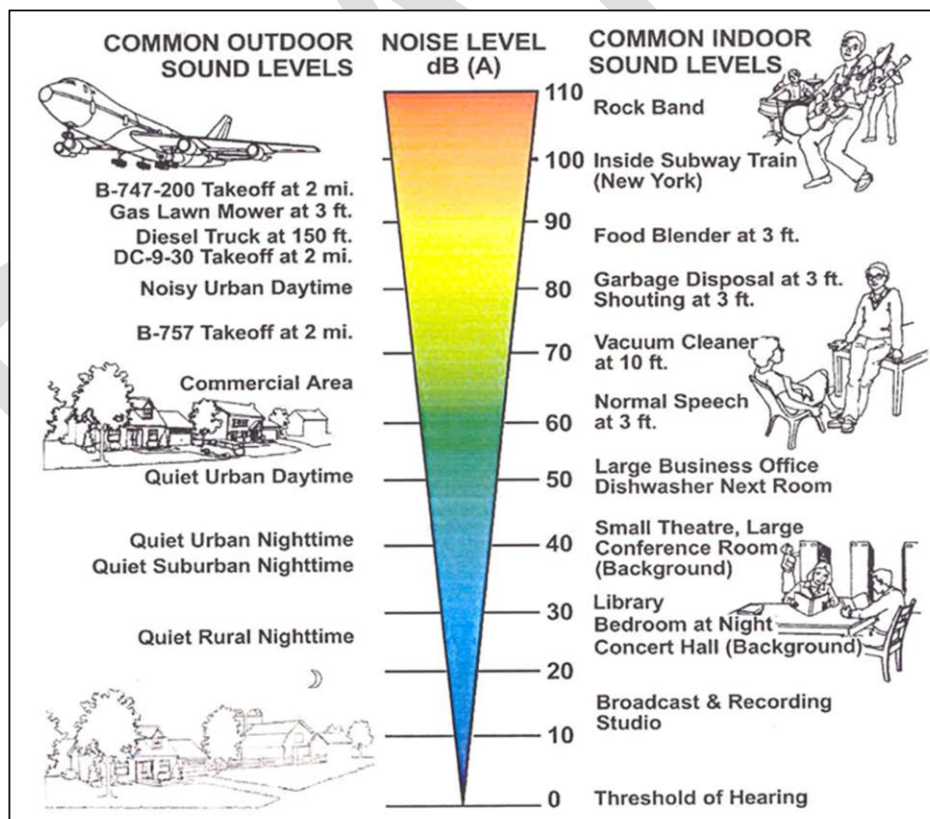
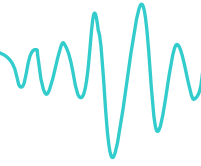


Figure 1-2 Typical Indoor and Outdoor Sound Levels



1.2 Ground-Borne Vibration Fundamentals

Vibration is acoustic energy transmitted as waves through a solid medium, such as soil or concrete. Like noise, the rate at which pressure changes occur is called the frequency of the vibration, measured in Hz. Vibration may be the form of a single pulse of acoustical energy, a series of pulses, or a continuous oscillating motion.

Ground-borne vibration is the ground motion about some equilibrium position that can be described in terms of displacement, velocity, and acceleration. It can be generated by transportation systems, construction activities, and other large mechanical systems. Vibration motion moves in the X, Y and Z axes.

The way that vibration is transmitted through the ground depends on the soil type, the presence of rock formations or man-made features and the topography between the vibration source and the receptor location. As a general rule, vibration waves tend to dissipate and reduce in magnitude with distance from the source. Also, the high frequency vibrations are generally attenuated rapidly as they travel through the ground, so that the vibration received at locations distant from the source tends to be dominated by low-frequency vibration. The frequencies of ground-borne vibration most perceptible to humans are in the range from less than 1 Hz to 100 Hz.

When ground-borne vibration arrives at a building, a portion of the energy will be reflected or refracted away from the building, and a portion of the energy will typically continue to penetrate through the ground-building interface. However, once the vibration energy is in the building structure, it can be amplified by the resonance of the walls and floors. Occupants can perceive vibration as motion of the building elements (particularly floors) and also rattling of lightweight components, such as windows, shutters or items on shelves. At very high amplitudes (energy levels), low-frequency vibration can cause damage to buildings.

1.3 Vibration Descriptors

The following section describes the vibration descriptors that will be used in this study.

Peak Particle Velocity

The peak particle velocity (PPV) is defined as the maximum instantaneous velocity of a particle as it transmits a vibration wave. The accepted unit for measuring PPV is inches per second (ips). PPV is appropriate for evaluating the potential for building damage and for evaluating human response to ground-borne vibration. When reporting measured PPV values, a time interval is generally specified over which the PPV values were recorded during the measurement process.

2. Project Noise Thresholds and Sound Monitoring Locations

The Project noise thresholds are provided in the City of Sunnyvale Municipal Code Noise Standards along with agreed upon thresholds established with the City of Sunnyvale on August 4, 2023.

2.1 Water Well Drilling Project Noise Thresholds and Sound Monitoring Locations

- Per CEQA documentation, water well drilling operations shall not exceed 80 dBA during daytime hours (7am-6pm), 60 dBA during the evening hours (6pm-10pm) and 50 dBA during nighttime hours (10pm-7am) at residential property boundaries. Sound level trigger thresholds of 78 dBA (Daytime), 58 dBA (Evening) and 48 dBA (Nighttime) will be established to notify the field operator or designated representative that noise levels are approaching the applicable limits. Upon notification, the party responsible will assess whether the elevated noise levels are attributed to project related activities. Cal Water Services has designated a 24-hour noise coordinator to contact if any noise concerns arise during the water well drilling operations. If project operations are determined to be the source, appropriate corrective measures will be implemented to reduce noise levels and prevent exceedance of the established thresholds. The corrective measures are detailed in Section 4.6 Figure 2-1 presents the proposed sound level meter monitoring locations during water well drilling operations.
- Daily summary reports will be generated to document the sound levels that were captured during the continuous monitoring period. If applicable, brief notes describing any exceedances will be provided. If noise reduction mitigation efforts are implemented, notes describing the measures taken will be provided.

The proposed sound level monitoring locations are positioned at the residential property boundary closest to the most sensitive locations to the project activities.



Figure 2-1 Sound Monitoring Locations During Water Well Drilling Operations

Behrens and Associates, Inc.*Environmental Noise Control*

3. Project Vibration Thresholds and Vibration Monitoring Locations

The following details the vibration velocity level thresholds that will be utilized to determine if the vibration levels are approaching the threshold limit.

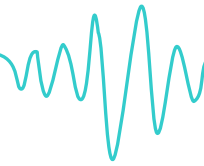
3.1 Water Well Drilling Operations Project Vibration Thresholds and Vibration Monitoring Locations

- Per CEQA documentation, water well drilling operations shall not exceed a vibration level of 0.25 in/sec (PPV) during daytime hours (7am-10pm) and 0.04 in/sec during nighttime hours (10pm-7am) at residential property boundaries. A vibration trigger level of 0.20 in/sec PPV (Daytime) and 0.03 in/sec PPV (Nighttime) will be established to notify the field operator or designated representative that vibration levels are approaching the allowable limit. Upon notification, the party responsible will evaluate whether the elevated vibration level is attributed to project related activities. If project operations are determined to be the source, appropriate corrective measures will be implemented to reduce vibration levels and prevent exceedance of the established threshold. The corrective measures are detailed in Section 4.6. Figure 3-1 presents the proposed vibration monitoring location during water well drilling operations.
- Daily summary reports will be generated to document the vibration velocity levels that were captured during the continuous monitoring period. If applicable, brief notes describing any exceedances will be provided. If vibration mitigation efforts are implemented, notes describing the measures taken will be provided.

The proposed vibration level monitoring locations are positioned at the residential property boundary closest to the most sensitive locations to the project activities.



Figure 3-1 Vibration Monitoring Location During Water Well Drilling Operations



4. Noise and Vibration Instrumentation, Installation, and Operational Procedures

4.1 Instrumentation

Table 4-1 provides equipment manufacturers and model numbers of the noise and vibration meters that will be used during the continuous noise and vibration monitoring at the Project site. Instrumentation specifications are provided in Appendix B.

Table 4-1 Continuous Noise and Vibration Monitoring Instrumentation

Item	Quantity	Equipment
Sound Level Meter	2	Type I sound level meter capable of remote continuous monitoring
Vibration Level Meter	2	Vibration meter capable of remote continuous monitoring

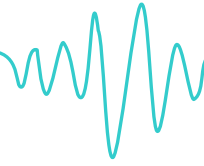
During the sound level monitoring process, the sound level meter(s) will be installed in a metal enclosure box as shown in Figure 4-1 with the microphone positioned outside of the box. The boxes provide security and weather shelter for the sound level meters.



Figure 4-1 Sample Deployed Sound Level Meter Photographs

Behrens and Associates, Inc.

Environmental Noise Control



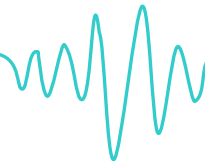
During the vibration monitoring process, the vibration meter(s) will be installed in an irrigation box as shown in Figure 4-2. The box provides security and weather shelter for the vibration meters.



Figure 4-2 Sample Vibration Meter Deployment Photographs

Behrens and Associates, Inc.

Environmental Noise Control



4.2 Continuous Noise Monitoring Alarms and Notifications

During the continuous noise monitoring, the instantaneous alert system will send an email and/or SMS text notification if measured noise levels exceed the applicable threshold limits. The measured noise levels will be conducted in terms of 15-minute A-weighted equivalent sound levels (15-min Leq, dBA). The notifications will be triggered if the 15-minute Leq sound levels exceed the below thresholds.

The proposed noise threshold trigger levels are shown in Table 4-2. Separate notifications will be sent for the “warning” and “exceedance” levels.

Table 4-2 Water Well Drilling Phases Noise Threshold Notification Levels (dBA)

Alert Type	Notification Level Daytime (7am- 6pm)	Notification Level Evening (6pm-10pm)	Notification Level Nighttime (10pm- 7am)	Recipients
Noise Level 1 (Warning)	78 dBA	58 dBA	48 dBA	California Water Services
Noise Level 2 (Exceedance)	80 dBA	60 dBA	50 dBA	California Water Services

4.3 Continuous Vibration Monitoring Alarms and Notifications

During the continuous vibration monitoring, the instantaneous alert system will send an email and/or SMS text notification if measured vibration velocity levels exceeds the (PPV) established threshold limits in the vertical direction. The measured vibration velocity levels will be conducted in terms of maximum peak-particle-velocity (ppv) reported in inches per second (ips) in the vertical axis over 5-minute intervals.

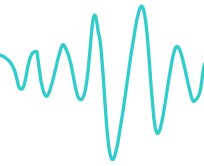
The proposed noise threshold trigger levels are shown in Table 4-3. Separate notifications will be sent for the “warning” and “exceedance” levels.

Table 4-3 Water Well Drilling Vibration Threshold Notification Levels (PPV)

Alert Type	Notification Level	Notification Recipients
Vibration Level 1 (Warning)	0.20 inch/sec	California Water Services
Vibration Level 2 (Exceedance)	0.25 inch/sec	California Water Services

4.4 Examples of Continuous Noise and Vibration Notification and Alarm Messages

Figure 4-3 and Figure 4-4 present sample notification/alarm message from the noise and vibration meters after a trigger level has been exceeded.

Behrens and Associates, Inc.*Environmental Noise Control*

From: SvanNET: [REDACTED]@svannet.com <SvanNET: [REDACTED]@svannet.com>
 Sent: Thursday, January 8, 2026 12:15 PM
 To: Undisclosed recipients <no-reply@svannet.com>
 Subject: SV307 [REDACTED]

EVENT3 2026-01-08 15:15 Leq 76.2dB > 75dB [http://www.svannet.com/\[REDACTED\]&pp=1&idE=4&dt=2026,1,8,15,15,0,0](http://www.svannet.com/[REDACTED]&pp=1&idE=4&dt=2026,1,8,15,15,0,0)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Figure 4-3 Sample Sound Level Meter Notification/Alarm

From: SvanNET: [REDACTED]@svannet.com <SvanNET: [REDACTED]@svannet.com>
 Sent: Wednesday, January 21, 2026 8:22 AM
 To: Undisclosed recipients <no-reply@svannet.com>
 Subject: SV803 [REDACTED]

EVENT1
 Time: 2026-01-21 08:20
 Sensor: SV803 [REDACTED]
 Standard: PPV
 Alarm Source: PPV
 Threshold(X): 0.600 ips
 Threshold(Y): 0.600 ips
 Threshold(Z): 0.600 ips
 Value:
 VMAX(X) = 0.154 ips 9.77 Hz
 VMAX(Y) = 0.140 ips 36.1 Hz
 VMAX(Z) = 0.659 ips 9.77 Hz (ALARM)
[http://www.svannet.com/\[REDACTED\]1692&pp=0&idE=2&dt=2026,1,21,8,20,41,0](http://www.svannet.com/[REDACTED]1692&pp=0&idE=2&dt=2026,1,21,8,20,41,0)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

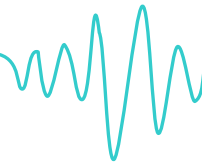
Figure 4-4 Sample Vibration Level Meter Notification/Alarm**4.5 Monitoring and Reporting Methodology**

The measured sound data will be recorded continuously using professional grade equipment (ex. SvanTek SV307A) that meets international “Class 1” precision standards. The sound level meters will be powered by solar panels. Measured data will be sent to a secure website via cellular connection. Sound data from each monitoring location will be downloaded and used to generate daily reports displaying 15-min Leq, dBA values. The measurement results will be reported in a format similar to that exhibited in Appendix A.

The measured vibration data will be recorded continuously using professional grade equipment (ex. SvanTek SV803) in line with current industry standards. The vibration meter will be battery powered. Measured data will be sent to a secure website via cellular connection. Vibration data from each monitoring location will be downloaded and used to generate daily reports displaying ppv values in inches per second (ips) in the vertical direction over 5-min intervals. The measurement results will be reported in a format similar to that exhibited in Appendix A.

Behrens and Associates, Inc.

Environmental Noise Control



4.6 Noise Exceedance and Complaint Response

Examples of noise notification responses by trigger level are shown in Table 4-4.

Table 4-4 Noise Response Notification Water Well Drilling Operations

Alert Type	Notification Level Daytime (7am-6pm)	Notification Level Evening (6pm-10pm)	Notification Level Nighttime (10pm-7am)	Response
Noise Level 1 (Warning)	78 dBA	58 dBA	48 dBA	The Project onsite superintendent identifies offending equipment or activity
Noise Level 2 (Exceedance)	80 dBA	60 dBA	50 dBA	The Project onsite superintendent identifies offending equipment or activity and modifies activity to reduce the noise level; Superintendent communicates with 24-hour noise coordinator Melinda Schmitt and documents a description of the offending equipment or activity; Mitigation measures are proposed and implemented as needed

If a notification of a noise exceedance is received, The Project onsite superintendent will identify the offending activity and take the necessary measures to reduce that impact to remain within the thresholds. If necessary, triggered audio recordings can be reviewed to determine if the cause of the exceedance was due to The Project activity or unrelated offsite sources. If it is determined that The Project caused the noise exceedance, noise mitigation measures will be pursued.

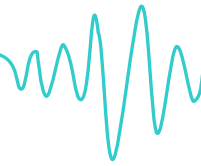
Cal Water Services has designated Melinda Schmidt to be a 24-hour noise coordinator to be contacted about any noise concerns that may arise during the water well drilling operations. She can be contacted at (650) 280-6033.

Potential noise mitigation measures include:

- Substitute lower powered equipment for offending equipment
- Substitute or alter offending activity
- Increase distance between offending equipment and sensitive location being monitored
- Install additional noise barriers, shrouds, or enclosures at the site for noise issues

4.7 Vibration Exceedance and Complaint Response

In the event that the levels do approach and reach the threshold limits, Table 4-5 describe the measures to be taken by California Water Services designated representative on site.

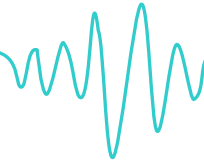
Behrens and Associates, Inc.*Environmental Noise Control***Table 4-5 Vibration Response Notification Response Water Well Drilling Operations**

Notification Level		Response
Vibration Level 1 (Warning)	0.20 inch/sec	The Project onsite superintendent identifies offending equipment or activity
Vibration Level 2 (Exceedance)	0.25 inch/sec	The Project onsite superintendent identifies offending equipment or activity and modifies activity to reduce vibration level; Superintendent communicates with management and documents a description of the offending equipment or activity; Mitigation measures are proposed and implemented as needed

If a notification of a vibration exceedance is received, The Project onsite superintendent will identify the offending activity and take the necessary measures to reduce that impact to remain within the thresholds. If it is determined that the Project caused the vibration exceedance, vibration mitigation measures will be pursued.

Potential noise and vibration mitigation measures include:

- Substitute lower powered equipment for offending equipment
- Increase distance between offending equipment and sensitive location being monitored
- Substitute or alter offending activity



Appendix A - Sample Noise and Vibration Monitoring Report

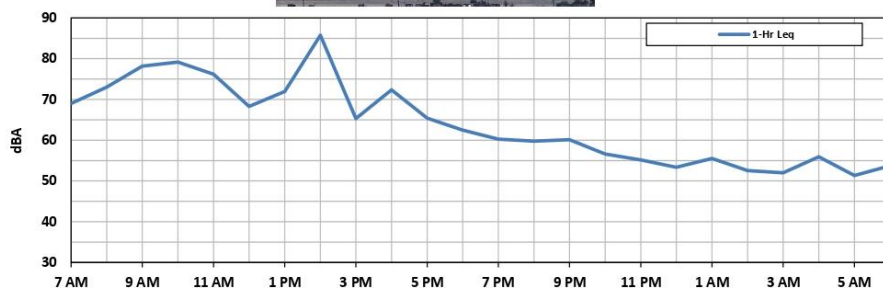
DRAFT

Behrens and Associates, Inc.
Environmental Noise Control

**Sample Construction - Sample Site
 Noise Monitoring Daily Report Location 1**

Monitoring Period			Duration	Report Date	Meter Type and (Serial Number)
Start Time	End Time				
7:00 AM	5/18/2026	7:00 AM 5/19/2026	24 hours	5/19/2026	SVAN 307A (84952)

Measured Sound Level Data		
Time	1-Hr Leq (dBA)	Notes
7:00 AM	69.0	
8:00 AM	73.0	
9:00 AM	78.2	Loud trucks driving by
10:00 AM	79.2	
11:00 AM	76.2	
12:00 PM	68.3	
1:00 PM	71.9	
2:00 PM	85.8	Construction activity
3:00 PM	65.3	
4:00 PM	72.4	Vehicle idling
5:00 PM	65.4	
6:00 PM	62.5	
7:00 PM	60.3	
8:00 PM	59.8	
9:00 PM	60.1	
10:00 PM	56.6	
11:00 PM	55.2	
12:00 AM	53.4	
1:00 AM	55.5	
2:00 AM	52.6	
3:00 AM	52.0	
4:00 AM	55.9	
5:00 AM	51.3	
6:00 AM	53.7	
Daytime (7am - 10pm) Leq		76.3 dBA
Nighttime (10pm - 7am) Leq		54.4 dBA



1

Behrens and Associates, Inc.

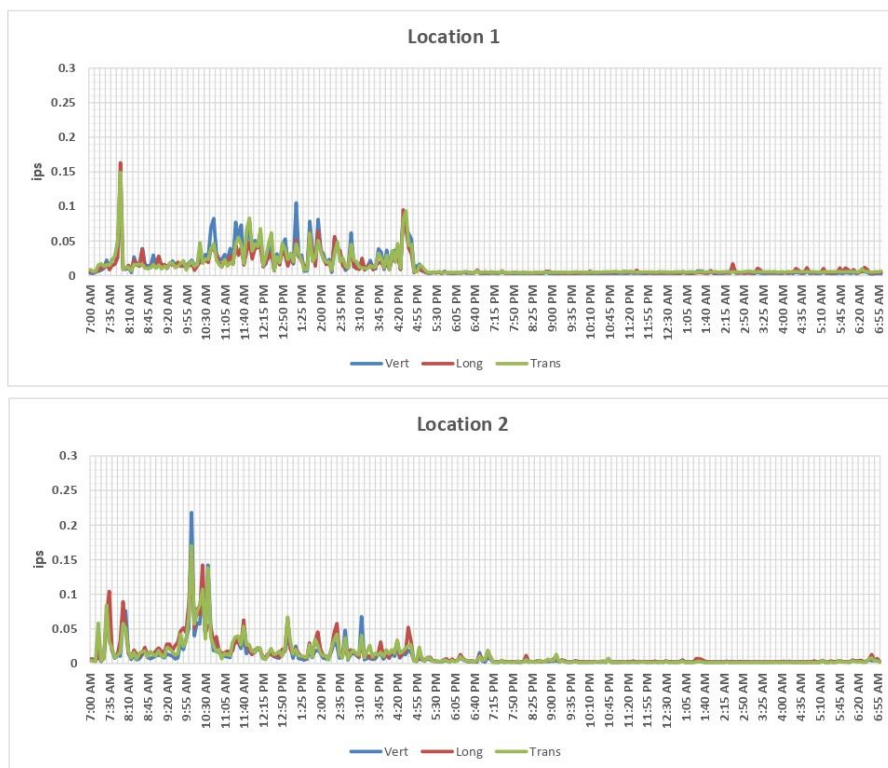
Sample Daily Report

Figure A-1 Sample Daily Noise Monitoring Report

Behrens and Associates, Inc.
Environmental Noise Control

Sample Construction - Sample Site
Vibration Monitoring Daily Report Location 1 and 2

Monitoring Period				Duration	Report Date	Meter Type and (Serial Number)
Start Time		End Time				
7:00 AM	5/18/2026	7:00 AM	5/19/2026	24 hours	5/19/2026	Location 1 SV803 (68640) Location 2 SV803 (104686)

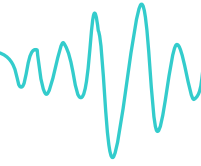


2

Behrens and Associates, Inc.

Sample Daily Report

Figure A-2 Sample Daily Vibration Monitoring Report



Appendix B - Instrumentation Specifications

DRAFT



The SVANTEK SV 307A is a Class 1 Noise Monitoring Station. It features a white, cylindrical body with a black, spherical microphone at the top. The device is shown against a background of a city skyline with a construction crane. A tablet in the foreground displays a graph of noise levels over time.

SVANTEK
monitoring systems

SV 307A

Class 1 Noise Monitoring Station

The SV307A is a new version of the best-selling monitoring station, which has been equipped with the latest microphone in MEMS technology with a patented dual remote system that checks the correctness of the measurement path. An additional advantage of this solution is the indefinite manufacturer's warranty for the microphone.

The SV 307A uses the built-in 4G modem to send SMS and email alarms and to send measurement data to the SvanNET website where users can view the results and configuration settings.

Figure B-1 SVANTEK SV307A Sound Level Meter Product Sheet Page 1



The advertisement features a background image of a busy highway with cars in motion. In the foreground, a tablet displays a software interface with a map, a line graph showing noise levels over time, and a data table. To the right of the tablet is the SV 307A noise monitoring device, which has a black spherical microphone at the top and a white body with a small digital display showing '54.0'.

SV 307A Noise Monitoring Station



New all-in-one hardware

New microphone
faster data transfer

The new version of the SV 307A has an improved external housing for operation in conditions of high sunlight exposure and low temperatures, a high-speed 4G modem and a unique microphone in the MEMS technology. The all-in-one hardware also includes a large internal battery that can power the system for 5 days with a modem turned on.



Patented system check

Dual and remote
measurement validation

The patented system check uses MEMS microphones located very close to each other. In case the levels measured by the reference microphone and the measurement microphones differ by more than a particular threshold, the SV 307A system check triggers an alarm. Additionally, an inbuilt sound source producing level of approx. 100 dBA at 1 kHz can be used for manual or automated system check.



Noise, meteo, dust

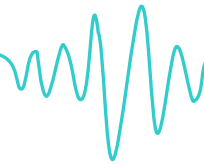
Smart monitoring and
advanced triggering

The instrument is designed to monitor noise levels and their spectra, record and audio signal and GPS localization. All meteorological values such as wind speed, wind direction, rain, humidity etc. or dust particles PM2.5 or PM10 can be stored together with the noise data when external sensors are connected.

 **SVANTEK**

SV 307A – Noise Monitoring Station

Figure B-2 SVANTEK SV307 Sound Level Meter Product Sheet Page 2



Key Functions



Class 1 accuracy and precision

The SV 307A is a new class 1 noise monitoring station designed for permanent noise monitoring. With the improved housing, the SV 307A has the superior acoustics characteristics.



Life-time warranty on microphone

The SV 307A is equipped with a state-of-the-art MEMS microphone with a life-time warranty.



Real-time frequency analysis

The 1/3 octave function allows the determination of the influence of high or low frequencies on overall values. Functions can be activated at any time by ordering the activation code.



Triggered audio recording

Audio recording is synchronized with a noise time-history and it can be opened and played back in PC software enabling noise source recognition. Audio recording can be triggered on threshold or time. It can be activated at any time by ordering the activation code.



Audio streaming live listening

The SV 307A is capable of streaming the live audio to the SvanNET. The function works independently of the way audio recording and can be activated as the SvanNET license.



GPS localisation and synchronization

The accurate GPS module provides information on the localization as well as measurement time synchronization.



Low power consumption

Low power consumption is the key functionality when it comes to permanent noise monitoring. It means lower cost of running the system as well as longer time of battery operation - up to 5 days with modern transmission.

PC software

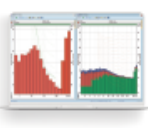
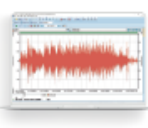


SvanNET enables a plug & play connection to the Internet and easy management of measurement projects. Regardless of the SIM card type, Public or Private, SvanNET will establish connection, giving full access to the measurement data via web browser.



SVAN PC++ is a PC software supporting functions such as measurement data downloading from instruments to PC, measurement setups creation, basic Leq/RMS recalculation, measurement results in text, table and graphical form of presentation, export data to a spread sheet or text editor applications.

Optional accessories

 SP 275 Weather Station	 SB 371 Solar Panel
 SB 275 External 33 Ah Battery	 SV 36 Class 1 Sound Calibrator 94 dB/114 dB
 SF 307_3 License of 1/1 & 1/3 octave	 SF 307_15 License of audio recording
 SVANNET_1A SvanNET Projects subscription - 1 year	 SVANNET_LISTENING_A On-line audio listening subscription - 1 year

SV 307A - Noise Monitoring Station

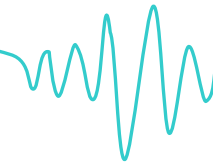


Figure B-3 SVANTEK SV307 Sound Level Meter Product Sheet Page 3

Behrens and Associates, Inc.*Environmental Noise Control***SV 307A – Noise Monitoring Station****Technical Specifications**

Standards	Class 1: IEC 61672-1:2013, Class 1: IEC 61260-1:2014	
Weighting Filters	A, B, C, Z, LF	
Time Constants	Slow, Fast, Impulse	
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB	
Microphone	Patented MEMS based design microphone ST 30A in 1/2" housing	
Preamplifier	Integrated	
Linear Operating Range	30 dBA RMS + 128 dBA Peak (in accordance to IEC 61672)	
Dynamic Measurement Range	23 dBA RMS + 128 dBA Peak (typical from noise floor to the maximum level)	
Internal Noise Level	Less than 23 dBA RMS	
Dynamic Range	>100 dB	
Frequency Range	20 Hz + 20 kHz	
Meter Mode Results	Elapsed time, Lxy, Lxq (LEQ), Lxpeak (PEAK), Lxymax (MAX), Lxymmin (MIN), LxyE (SEL), 2 x LR (ROLLING LEQ), 10 x LN (LEQ STATISTICS), Lden, LEPd, Ltm3, Ltm5, GPS coordinates	
Measurement Profiles	Simultaneous measurement in three profiles with independent set of filters (x) and detectors (y)	
Statistics	Ln (L1-L99), complete histogram in meter mode	
Data Logger	Logging of summary results (SR) and spectra data with interval step down to 1 s and time history (TH) of selected parameters with shorter interval step down to 100 ms	
1/1 Octave Analysis (option)	Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 31.5 Hz to 16 kHz	
1/3 Octave Analysis (option)	Real-time analysis meeting Class 1 requirements of IEC 61260, centre frequencies from 20 Hz to 20 kHz	
Audio Recording (option)	Time domain records to wav file format on demand with selectable bandwidth and recording period	
Remote System Check	Real-time system check and Built-in sound source producing level of approx. 100 dB at 1 kHz	
GPS	Time synchronization and localization	
Memory	MicroSD card 32 GB (removable & upgradeable up to 128 GB)	
Display and Keyboard	OLED colour display 128 x 160 px and 10 push-button keyboard	
Communication Interfaces	USB 2.0 4G modem RS 232 for meteo module or dust monitor	
Ingress Protection Rating	IP 54 (significant protection from dust, protection from rain, spraying and splashing)	
Power Supply	Li-Ion rechargeable battery (non-removable) Operation time on battery (7.2 V / 10 Ah): Modem off up to 6 days Modem on up to 5 days (depends on modem usage) Solar Panel (not included) MPPT voltage 17.0 V + 20.0 V AC power supply (included) Input 100 + 240 VAC output +15 VDC 2.5 A, IP 67 housing voltage range 10.5 V + 24 V e.g. 12 V or 24 V accumulator External DC source (not included)	
Environmental Conditions	Temperature	from -20 °C to 60 °C
	Humidity	up to 99 % RH, non-condensed
Dimensions	680 mm length; 80 mm diameter excluding windscreen (windscreen diameter 130 mm)	
Weight	Approx. 2.2 kg	

Figure B-4 SVANTEK SV307 Sound Level Meter Product Sheet Page 4





SVANTEK
SV 803 Vibration Monitoring Terminal



SVANTEK
monitoring systems

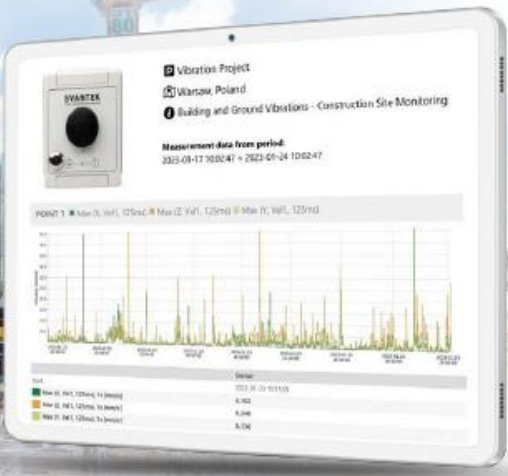
SV 803

Wireless Vibration Monitor

The SV 803 is designed for both short- and long-term monitoring applications. It measures velocity in three directions and calculates both Peak Particle Velocity and Dominant Frequency values simultaneously. In addition to logging overall values and frequency spectra, the SV 803 also stores the time domain signal for post-processing purposes.

The device uses FFT for determining the dominant frequency according to BS and DIN standards. It also has the option to use RMS or PEAK velocity spectrum in 1/3 octave bands for comparison with user-defined curves.

With a battery life of up to 180 days and the ability to sustain ongoing operation when connected to a solar panel, the SV 803 is a reliable choice for vibration monitoring.



Vibration Project
Warsaw, Poland
Building and Ground Vibrations - Construction Site Monitoring

Measurement data from period:
2023-08-17 10:02:47 ~ 2023-09-04 10:02:47

POINT 1: Max (X, Y, Z) 125ms, 125ms, 125ms

Unit	Value
Max (X, Y, Z) 125ms, 1s (mm/s)	0.102
Max (X, Y, Z) 125ms, 1s (mm/s)	0.102
Max (X, Y, Z) 125ms, 1s (mm/s)	0.102

Figure B-4 SVANTEK SV803 Vibration Level Meter Product Sheet Page 1



SV 803

Vibration Monitoring Station



Building Vibration

Compliant with DIN 4150-3 and BS 7385-2

The choice of Building Vibration Standard and the type of building (curve) enables the vibration velocity measurements according with commonly used standards such as DIN 4150-3 or BS 7385-2 that use Peak Particle Velocity and Dominant Frequency method.



Dust & Meteo

Integrate a Weather Station and Dust Meter

Integrate the SP 276 weather station or the SP 280 dust monitor using the optional SD 310 monitoring system controller. The vibration monitoring data as well as meteo and dust will be integrated within SvanNET Projects accessible on-line.



Mobile Application

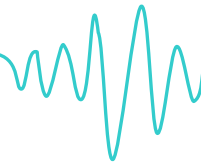
Access the SV 803 on iPhone, Android or PC

Bluetooth connection gives full control of the system using any web browsing device like a mobile phone, tablet. The mobile application allows you to control the measurement (start/stop), configure measurement parameters, and view the measurement results.

 **SVANTEK**

SV 803 – Vibration Monitoring Station

Figure B-5 SVANTEK SV803 Vibration Level Meter Product Sheet Page 2

Behrens and Associates, Inc.*Environmental Noise Control***Key Features****Triaxial Vibration Monitoring**

SV 803 is a portable monitoring system secured in a waterproof housing, dedicated for periodic and long-term outdoor measurements. The system uses three geophones that can be easily taken out for a calibration.

**PPV Vector**

Peak Particle Velocity (PPV) and PPV Vector Sum are measured simultaneously in THREE AXES and logged in the time history.

**KB and VDV**

Station is fully configurable to measurement of human vibration in buildings in accordance DIN 4150-2 and BS 6472-1.

**Long Battery Life and Solar Panel Powering**

One of the biggest advantages of using the SV 803 is its power efficiency. It can run up to 6 months on batteries. Station can be powered from internal battery or outdoor DC power supply and is ready for direct connection of solar panel.

**Events and Alarms**

The 4G GSM modem provides fast data transfer over the Internet to PC with standard Internet connectivity. SMS and E-MAIL alarms can be configured based on vibration levels.

**User Curves in FFT and 1/3 Octaves**

If you can't find the vibration standard on the list of implemented ones, you can always input customized values to create a criterion curve based on FFT or 1/3 octave spectrum (RMS, PEAK or MAX).

**Wave Recording**

With WAV analysis software you can search for peaks and calculate FFT or 1/3 octave spectrum on selected time periods and calculate various other parameters using the raw WAV signal.

Optional software**SvanNET Projects**
On-line data access

SvanNET Projects is a payable extension offering fully automated management of multi-point noise and vibration monitoring task. Tools such as Automatic Files Download, Data Storage, Advanced Alarms, Data Sharing and Reporting enable unattended monitoring. The functionality of SvanNET Projects allows to group monitoring stations.

**SvanPC++**
Data post-processing

SvanPC++ Building Vibration Module is designed for post-processing of data recorded by the monitoring station. The module offers a powerful calculator and an automated event finder in accordance with main building vibration standards. It also enables WAV analysis. The post-processing software comes with the system at no additional cost.

**Assistant PRO**
Mobile Application

Assistant Pro App works both on Android and iOS and is an intuitive and easy way of fully controlling your measurement. The user interface allows the preview of results in the form of time-history plots, spectrum graphs and numerical values. The interface enables the configuration of the instrument, its cloud connection and calibration.

Related Products**SvanNET**
Automatic Monitoring Services**SB 671**
Solar Panel**SP 276**
Weather Station**SP 280**
Dust Monitor

SV 803 – Vibration Monitoring Station

**Figure B-6 SVANTEK SV803 Vibration Level Meter Production Sheet Page 3**



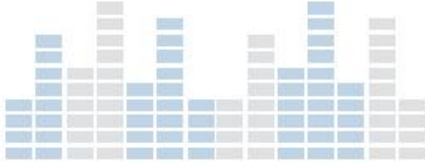
SV 803 – Vibration Monitoring Station



Technical Specifications

Standards	DIN 45669-1:2020-06; ISO 4866:2010, Class 1; IEC 61260:2014, Class 1
Meter Mode	PPV, DF, RMS, RRMS, VDV, MAX, Peak, Peak-Peak, PPV Vector, aw, awv, OVL
Analyser	1/3 octave real-time analysis or FFT analysis, Time domain signal recording to WAV format
Filters	DIN 80, DIN 315, VEL1, KB, HP
RMS Detector	Digital true RMS with Peak detection, resolution 0.01 dB
Detector Time Constants	Fast 125 ms in accordance to DIN 4150-2
Vibration Sensor	Tri-axial geophone
Dynamic Range	1 $\mu\text{m/s RMS}$ $\div$ 141 mm/s Peak
Measurement Range	3 $\mu\text{m/s RMS}$ $\div$ 100 mm/s RMS (141 mm/s Peak)
Frequency Range	0.8 Hz $\div$ 500 Hz (-3 dB)
Remote Communication	4G modem, Bluetooth, GPS
Power Supply	Internal battery / SB 803 Li-Ion battery pack - 7.2 V, 30.15 Ah, 217 Wh (removable) DC power supply / SB 274 charger (waterproof) External battery pack: Li-Ion (optional) Solar panel (optional)
Operating Time on Battery	up to 30 days with a continuous modem transmission up to 180 days in power saving mode *UNLIMITED with SB 803 and solar panel in power saving mode
Environmental Conditions	Temperature -20 °C $\div$ +50 °C
Dimensions	163 x 128 x 115 mm (without accessories)
Weight	Approximately 3,0 kg (including battery) Approximately 3,5 kg (including battery and mounting platform)

The policy of our company is to continually innovate and develop our products.
Therefore, we reserve the right to change the specifications without prior notice.



SVANTEK Sp. z o.o.
Strzysłowska 81, 04-872 WARSZAWA, POLAND
phone (+48) 22 51 88 320 | www.svantek.com/contact

SOUND AND VIBRATION MEASUREMENT SOLUTIONS

Figure B-7 SVANTEK SV803 Vibration Level Meter Product Sheet Page 4

Applicant Memo: Alternate Drilling

From: [Healey, William](#)
To: [Mary Jeyaprakash](#)
Cc: [Schmidt, Melinda](#); [Smithson, Dawn](#); [Noren Caliva-Lepe](#); [Gonzalez, Salvador](#)
Subject: RE: Additional Items from Planning Commission Hearing
Date: Tuesday, May 5, 2026 3:49:27 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)
[LAS 20 Noise & Vibration Monitoring Plan - 5-5-2026.pdf](#)

WARNING - This email came from an EXTERNAL source. Confirm the sender and its contents are safe before responding, opening attachment or links.

Hello,

Per the Planning Commission hearing, please see the attached Noise & Vibration Monitoring & Reporting Plan for LAS Sta. 20. The plan includes a sample report so residents can see what future reports will look like.

Here is the language from our well consultant in regards to the use of an electric drill:

“An electric-powered drill rig is not a practical or feasible option for construction of a deep, large diameter municipal supply well of the type proposed. Wells of this scale, approximately 800 feet in depth with a borehole diameter exceeding 28 inches, require high torque, sustained rotary power, and substantial hoisting capacity. Through research, it is LSCE’s understanding that delivering the power required for a project of this magnitude to an electrified drill rig would necessitate the use of a large diesel generator to supply sufficient energy to the rig. This approach would effectively negate any potential benefits of electrification, as the generator would produce comparable noise levels and diesel exhaust emissions to a conventional diesel-powered drill rig.

Furthermore, the pool of qualified drilling contractors with experience in Northern California capable of executing a project of this complexity is limited. Based on LSCE’s experience and industry knowledge, none of these contractors operate electric drill rigs, and such equipment is not used in this region for municipal supply well construction. Accordingly, specifying or requiring an electric drill rig would not only be impractical from a technical standpoint, but would also unduly restrict the already limited number of qualified bidders, potentially affecting project feasibility, cost, and schedule.”

Please let me know if you need anything else from our team to support the City Council hearing.

Thanks,

William Healey, P.E.

P-3 Project Engineer

CALIFORNIA WATER SERVICE

+1 (213) 5769867