



**US Army Corps  
of Engineers®**

## **LOS ANGELES COUNTY DRAINAGE AREA SEPULVEDA DAM FLOOD CONTROL RESERVOIR**

### **DONALD C. TILLMAN WATER RECLAMATION PLANT**

Noise Technical Study Appendix



**Prepared by  
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**With Technical Assistance by  
City of Los Angeles  
Department of Public Works,  
Bureau of Sanitation**

April 2017



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## **NOISE TECHNICAL STUDY**

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## 1 INTRODUCTION

### 1.1 PURPOSE OF REPORT

The purpose of this report is to evaluate and document the existing noise conditions at the Donald C. Tillman Water Reclamation Plant (Plant). The existing noise conditions represent baseline conditions for the Proposed Action. The field analysis documented by this report serves as the technical documentation to the discussion in the noise section of the associated Environmental Assessment (EA).

### 1.2 PROJECT DESCRIPTION

The United States Army Corps of Engineers (USACE) has received a request by the City of Los Angeles Department of Public Works, Bureau of Sanitation (LASAN) for a long-term easement for the operation of the Donald C. Tillman Water Reclamation Plant (Plant) in the Sepulveda Dam Flood Control Reservoir (Sepulveda Dam Reservoir), in Los Angeles County, California.

The Plant is situated on approximately 95 acres currently leased from the Corps to the City of Los Angeles (City) in the northeastern corner of Sepulveda Dam Reservoir. The Sepulveda Dam Reservoir is owned by the U.S. government with the Corps operating and managing the flood control project for the primary purpose of flood risk management. The Sepulveda Dam Reservoir is located approximately 17 miles northwest of downtown Los Angeles, in the San Fernando Valley community of Van Nuys, California, immediately northwest of the San Diego Freeway (Interstate 405 [I-405]) and the Ventura Freeway (U.S. Highway 101) interchange (Figure 1-1). The Plant is located at 6100 Woodley Avenue (Ave.), north of Burbank Boulevard (Blvd.) and south of Victory Blvd.

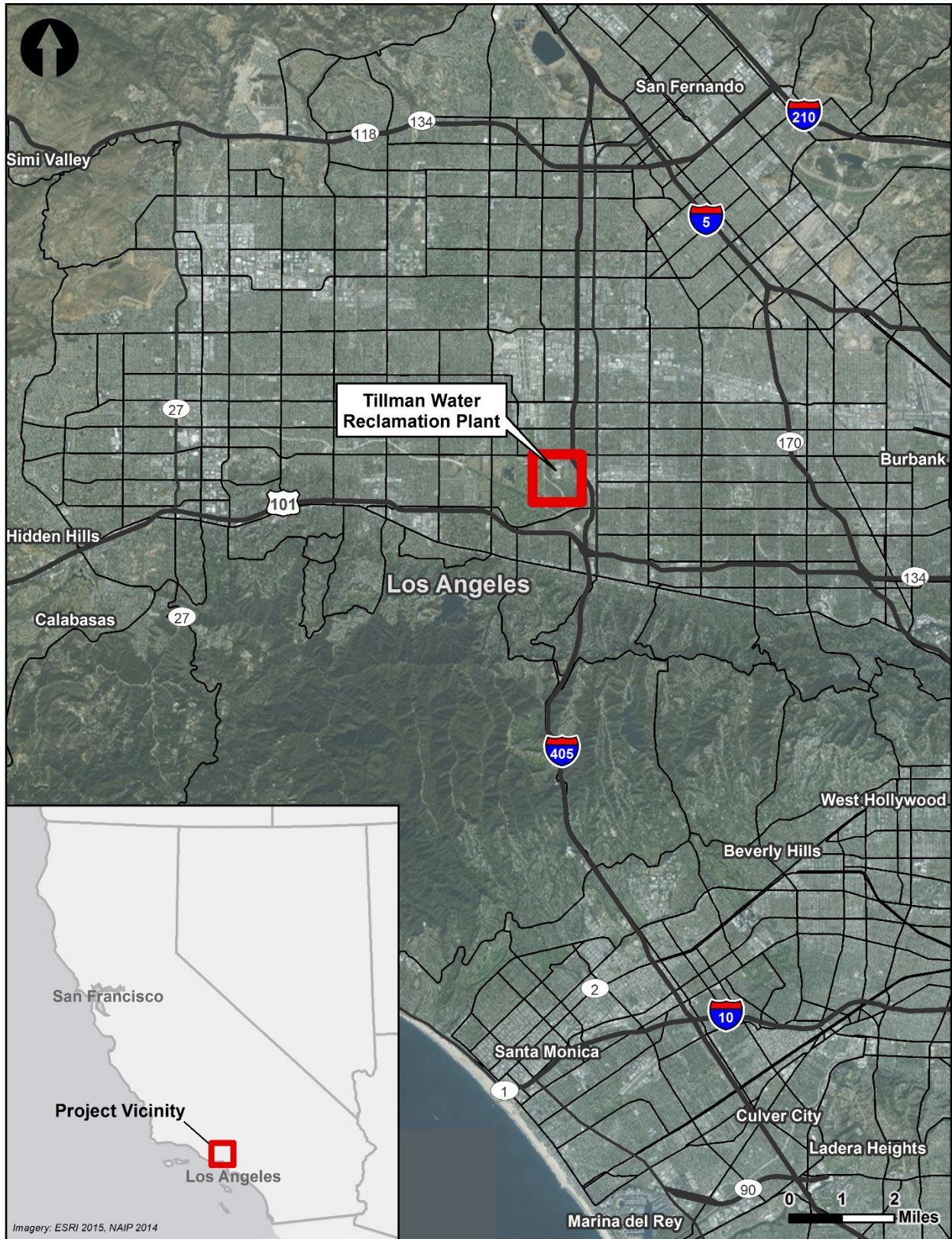
The City's stated purpose is to continue operations of the Plant for the next 35 years so the City can meet current and projected wastewater management goals including the full range of uses for which the Plant is authorized. These include the Advanced Water Purification Facility for groundwater replenishment, and improvements to provide the level of flood protection that is required at the Standard Project Flood elevation as set by the Corps per the operation of the Sepulveda Dam Reservoir. These conditions are a prerequisite to the Corps approving the Proposed Action.

As described by the City, the continued operation of the Plant is needed given the Plant's importance in treating and disposing of wastewater from the northern part of the City and the surrounding communities. Any discontinuation of service would be disruptive to the City's wastewater management goals, and, per the City, could pose a public health emergency. The Proposed Action is needed to ensure that the Plant can provide uninterrupted wastewater treatment services as well as recreational and educational opportunities.

### 1.3 PROJECT LOCATION

The Sepulveda Dam Reservoir comprises 2,000 acres of federally-owned land that is under the jurisdiction of the USACE, Los Angeles District. The USACE operates and manages the flood control project for the primary purpose of flood risk management. The Sepulveda Dam Reservoir is an integral part of the comprehensive plan for flood control in the Los Angeles County drainage area. The Sepulveda Dam regulates runoff from a drainage area of approximately 152 square miles, including the San Gabriel, Santa Monica, and Santa Susana mountains, and the Simi Hills. Historically, major inflow and impoundment events at the Sepulveda Dam Reservoir have been the result of winter storms.

Within the 2,000-acre Sepulveda Dam Reservoir, in addition to the Plant, there is the Sepulveda Dam Recreation Area, the Sepulveda Basin Wildlife Reserve, and the dam structure itself (Figure 1-2). Sepulveda Dam Recreation Area occupies the majority of the Sepulveda Dam Reservoir and includes a number of recreational facilities throughout the Sepulveda Dam Reservoir. These facilities include the



DONALD C. TILLMAN WATER  
RECLAMATION PLANT LEASE RENEWAL  
ENVIRONMENTAL ASSESSMENT

FIGURE 1-1 PROJECT LOCATION





Imagery: NAIP 2014

DONALD C. TILLMAN WATER RECLAMATION PLANT LEASE RENEWAL ENVIRONMENTAL ASSESSMENT	<b>FIGURE 1-2 TILLMAN PLANT AND THE SEPULVEDA DAM RECREATION AREA</b>
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Balboa Sports Center, the Balboa Golf Course, the Encino Golf Course, the Woodley Lakes Golf Course, Woodley Ave. Park, Lake Balboa and Lake Balboa Park (Figure 1-2). Additionally, open playfields, including a large cricket field, are located within the recreation area. Lakes in the recreation area are fed by the recycled waters from Plant. The Sepulveda Basin Wildlife Reserve, located in the southeastern portion of the Sepulveda Dam Reservoir, is approximately 225 acres and consists of restored natural habitat, an educational staging area and amphitheater, and various pathways and pedestrian bridges.

#### **1.4 PLANT OPERATIONS**

The Plant is an integral part of the City's wastewater system operated by LASAN. The Plant provides hydraulic relief for major interceptor sewers in the San Fernando Valley, as well as the North Outfall Sewer, the La Cienega-San Fernando Valley Relief Sewer tunnel through the Santa Monica Mountains, and downstream portions of the Hyperion system including the Hyperion Treatment Plant (HTP). The Plant grounds include the 6.5 acre Japanese Garden, designed by Dr. Koichi Kawara and dedicated in 1984 (Figure 1-2).

The Plant began operations in 1985 in the Sepulveda Dam Reservoir with the intent to relieve pressure on the major interceptor sewers in the San Fernando Valley as well as to relieve pressure on the HTP by treating sewage from the western portion of the San Fernando Valley. The Plant currently provides treatment of incoming wastewater for customers between Chatsworth and Van Nuys, producing about 80 million gallons of recycled water each day. About 40% of that wastewater comes from commercial uses, while 60% comes from residences. The treatment process includes grit removal, bar screens, primary sedimentation, activated sludge biological treatment, nitrification and denitrification treatment, secondary clarification, coagulation, dual media filtration, chlorination and dechlorination. The sludge from the primary and secondary treatment processes and filter backwash are returned to the interceptor and then transported to the HTP for further treatment.

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## 2 NOISE ASSESSMENT

### 2.1 TECHNICAL DEFINITION OF NOISE

Noise is generally defined as unwanted or excessive sound. The Los Angeles County Code of Ordinances Section 12.08.230 defines a noise disturbance as “an alleged intrusive noise which violates an applicable noise standard.” Section 12.08.210 defines an intrusive noise as a noise “which intrudes over and above the existing ambient noise at the receptor property” (Los Angeles County 2017). The City of Los Angeles Municipal Code defines ambient noise as “the composite of noise from all sources near and far in a given environment” (City of Los Angeles 2017). The Noise Element of the City’s General Plan further defines ambient noise as “the ‘given’ level of sound to which we are accustomed in our residential, work or other particular environments”, and defines any sound above that sound level to be intrusive sound (LADCP 1999).

Sound is created when an object vibrates and radiates part of its energy as acoustic pressure waves through a medium such as air, water or a solid. The ear receives these sound pressure waves and converts them to neurological impulses which are transmitted to the brain for interpretation. Two parameters are used to describe the sound environment at any instant in time: amplitude (or sound power) and frequency (or pitch). Amplitude of a sound is a measure of the pressure or force that a sound can exert. This sound pressure is measured in the logarithmic units of decibels (dB). A “weighting” is sometimes added to the measurement to reflect that human hearing is less sensitive at low frequencies and extreme high frequencies than at mid-range frequencies. This is called "A" weighting, and the resulting weighted level is called the A-weighted sound level (dBA). Noise levels can be measured at a specific moment in time or over a long period of time. Table 1 below shows the noise levels associated with common indoor and outdoor activities and/or noise sources.

**Table 1. Representative Noise Sources and Levels**

Common Outdoor Activities	Noise Levels (dBA)	Common Indoor Activities
	110	Rock Band
Jet Fly-over at 1000 ft Gas Lawnmower at 3 ft	100 – 110	Inside Subway Train
Diesel Truck at 50 ft Noisy Urban Daytime	90 – 100	Food Blender at 3 ft
	80 – 90	Garbage Disposal at 3 ft Shouting at 3 ft
Gas Lawn Mower at 100 ft Commercial Area	70 – 80	Vacuum Cleaner at 10 ft
Heavy Traffic at 300 ft	60 – 70	Normal Speech at 3 ft Large Business Office
Quiet Urban Daytime	50 - 60	Dishwasher next room
Quiet Urban Nighttime Quiet Suburban Nighttime	40 - 50	Small Theater/Conference Room (background)
	30 – 40	Library Bedroom at Night
Quiet Rural Nighttime	20 – 30	Concert hall (background) Broadcast & Recording Studio
	10 - 20	
	0	Lowest Threshold of Human Hearing
<i>Source: LADCP 1999.</i>		

## 2.2 SOURCES OF NOISE AT SITE

Noise within and around the Plant is characteristic of a densely populated urban area. Major noise sources in the vicinity include the I-405 freeway, located just east of the Plant; Victory Blvd., located just north of the Plant; and aircraft taking off and landing at the Van Nuys Airport, which is located approximately two miles northwest of the Plant.

Operation of the Plant generates noise that contributes to ambient noise levels in the vicinity of the Plant. This noise is generated 24 hours per day, 7 days per week. Elevated noise levels occur immediately adjacent to some of the equipment used at the Plant, but this equipment is housed indoors and sound levels are greatly attenuated as a result. Ambient noise is noticeable in areas immediately adjacent to the Plant, but is well below any applicable noise thresholds and does not constitute a major noise source. Operational noise from the Plant is audible to the north at the California Air National Guard site, but during previous field visits sound levels were low enough to not be disruptive (Tetra Tech 2014).

## 2.3 FIELD DOCUMENTATION OF AMBIENT NOISE IN AREA SURROUNDING PLANT

A field noise measurement study was performed in the Plant vicinity the week of November 28, 2016.

### 2.3.1 Methods

A SoundPro DL sound level meter was used to monitor noise levels at four locations surrounding the Plant: 1) In the residential community on the north side of Victory Blvd. adjacent to Blewett Ave., 2) In Woodley Park approximately adjacent to the Plant entrance, 3) Just inside the entrance to the Japanese gardens at the southern end of the gardens, and 4) At the northeast corner of the gardens adjacent to the Plant (Figure 2-1). Measurements were made during mid-morning and early afternoon hours to capture peak noise levels during off-peak traffic conditions. Measurements were made in duplicate to ensure that the quantified sound levels were representative.

### 2.3.2 Results

Results of the noise measurement study are provided in Table 2. Among the four locations, recorded noise levels were highest north of Victory Blvd., within the adjacent residential community. Noise levels at this site were 78.3 dB mid-morning and 78.5 dB in the early afternoon (Table 2). The second highest sound levels were recorded just south of the main entrance, in Woodley Park, where sound levels were 60.2 dB in mid-morning and 61.1 dB in the early afternoon. Recorded sound levels were lowest at the two sites along the western edge of the Plant (Figure 2-1). At the northern Japanese garden site, recorded sound levels were 58.7 dB mid-morning and 61.2 dB in the early afternoon. Recorded noise levels at the southern site were 57.7 dB mid-morning and 56.4 dB in the early afternoon (Table 2).

**Table 2. Results of noise monitoring conducted the week of November 28, 2016**

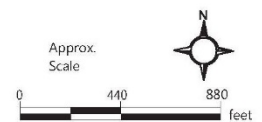
Location	Number on Figure 2-1	Sound level at mid-morning (dB)	Sound level in early afternoon (dB)	Level Average (dB)
Community	1	78.3	78.5	78.4
Woodley Park	2	60.3	61.1	60.7
South Japanese Gardens	3	55.0	57.7	56.4
North Japanese Gardens	4	58.7	61.2	60.0



**LEGEND**

- Project Site Boundary
- # Noise Monitoring Locations
  1. Single-Family Residence
  2. Woodley Park
  3. Japanese Garden - Southeast Corner
  4. Japanese Garden - Northeast Corner

Source: TAHA 2016.



**Figure 2-1. Location of noise monitoring sites near the Donald C. Tillman Water Reclamation Plant**

## **2.4 DISCUSSION**

Of the four monitoring sites, the community site in the residential area north of Victory Blvd. had the highest sound levels during the two monitoring periods (mid-morning, and in the early afternoon). Sound levels at this site were likely elevated in comparison to the other three sites due to the proximity of this site to Victory Blvd., the Orange Line busway, and I-405 (Figure 2-1). The Woodley Park site, which had the next highest sound levels, was the furthest site from both Victory Blvd. and I-405. However, sound levels at this site were higher than at the remaining two sites likely as a result of the proximity of this site to Woodley Ave. and the lack of structures between this site and I-405, to the east (Figure 2-1). The Plant structures and landscaping appear to attenuate noise from the nearby roadways (as well as from within the Plant itself), as the lowest recorded sound levels among the four sites occurred at the two sites along the western edge of the plant, at the northern and southern ends of the Japanese Garden (Table 2). Sound levels were slightly higher at the northern site in the northeastern corner of the gardens than at the southern site at the entrance to the gardens. Noise levels at the southern site are likely reduced by the presence of landscaped vegetative cover to the north, the wall to the west, and the Plant buildings to the east (Figure 2-1). The northern site is also sheltered by these features, but to a lesser extent.

## **2.5 CONCLUSIONS**

Some land uses are considered more sensitive to ambient noise levels than others because of the level of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, hotels, schools, rest homes, and hospitals are generally considered more sensitive to noise than commercial and industrial land uses. The closest sensitive receptors to the Plant are residences on the north side of Victory Blvd., located at least 800 feet north of the Plant; and residences on the east side of I-405, which are a quarter mile east of the Plant. Results of the field noise assessment suggest that the current operations at the Plant do not increase ambient noise in nearby residential areas, and that even during off-peak traffic conditions, roadways (in particular Victory Blvd. and I-405) exert the greatest influence on noise levels in the portions of the Sepulveda Dam Reservoir that surround the Plant.



### 3 REFERENCES

- City of Los Angeles. 2017. Los Angeles Charter and Administrative Code and Los Angeles Municipal Code. Available at [http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:losangeles\\_ca\\_mc](http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc). Accessed on April 5, 2017.
- City of Los Angeles Department of City Planning (LADCP). 1999. Noise Element of the City of Los Angeles General Plan. Available at <https://planning.lacity.org/cwd/gnlpln/noiseElt.pdf>. Accessed on April 5, 2017.
- Tetra Tech. 2014. Personal observations by Tetra Tech staff during field reconnaissance surveys at the DC Tillman WWTP, October 5, 2014.

### ACRONYMS

Ave.	Avenue
Blvd.	Boulevard
City	City of Los Angeles
Corps	United States Army Corps of Engineers
dB	Decibel
dBA	A-weighted decibel
EA	Environmental Assessment
HTP	Hyperion Treatment Plant
I-405	Interstate 405
LASAN	City of Los Angeles Department of Public Works, Bureau of Sanitation
Plant	Donald C. Tillman Water Reclamation Plant
Sepulveda Dam Reservoir	Sepulveda Dam Flood Control Reservoir
U.S.	United States

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**APPENDICES**

Raw Data from Noise Monitoring Sessions

**APPENDIX A1**

Noise levels at the community site during mid-morning

# Session Report

12/2/2016

## General Information

Name S006\_BLN070008\_28112016\_211656  
Comments  
Start Time 11/28/2016 1:00:30 PM  
Stop Time 11/28/2016 1:15:36 PM  
Run Time 00:15:06  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

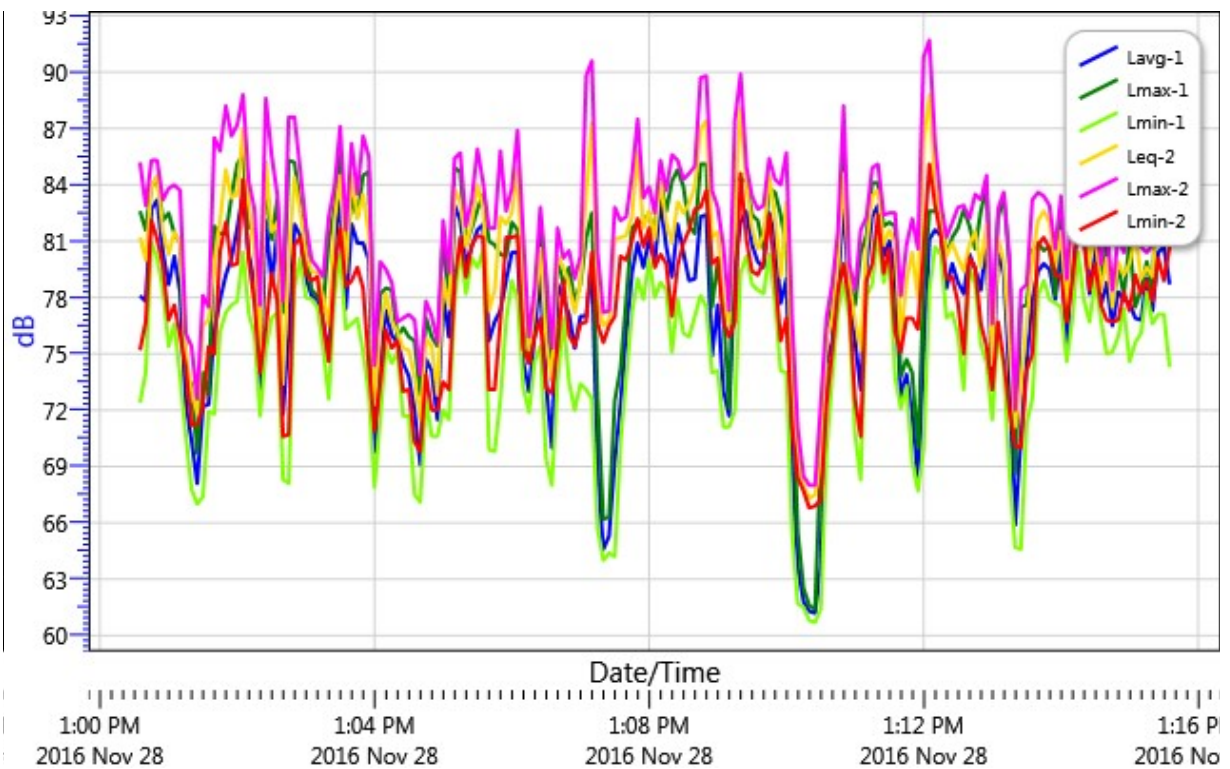
## Summary Data

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	1.3 %	Pdose (8:00)	1	39.8 %
Lavg	1	78.3 dB	Lpk	1	98.5 dB
Leq	1	--	TWA	1	53.3 dB
UL Time	1	00:00:00	SEL	1	127.4 dB
ProjectedTWA (8:00)	1	78.3 dB	Mntime	1	11/28/2016 1:10:18 PM
Mxtime	1	11/28/2016 1:12:00 PM	PKtime	1	11/28/2016 1:00:33 PM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	1.4 %	Pdose (8:00)	2	43.5 %
Lavg	2	--	Lpk	2	98.5 dB
Leq	2	81.3 dB	TWA	2	66.3 dB
UL Time	2	00:01:09	SEL	2	110.9 dB

ProjectedTWA (8:00)	2	81.3 dB	Mntime	2	11/28/2016 1:10:22 PM
Mxtime	2	11/28/2016 1:10:46 PM	PKtime	2	11/28/2016 1:00:33 PM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S006\_BLN070008\_28112016\_211656: Logged Data Chart - Read Only



**APPENDIX A2**

Noise levels at the community site during early-afternoon

# Session Report

12/2/2016

## General Information

Name S008\_BLN070008\_28112016\_211706  
Comments  
Start Time 11/28/2016 2:28:42 PM  
Stop Time 11/28/2016 2:43:52 PM  
Run Time 00:15:10  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

## Summary Data

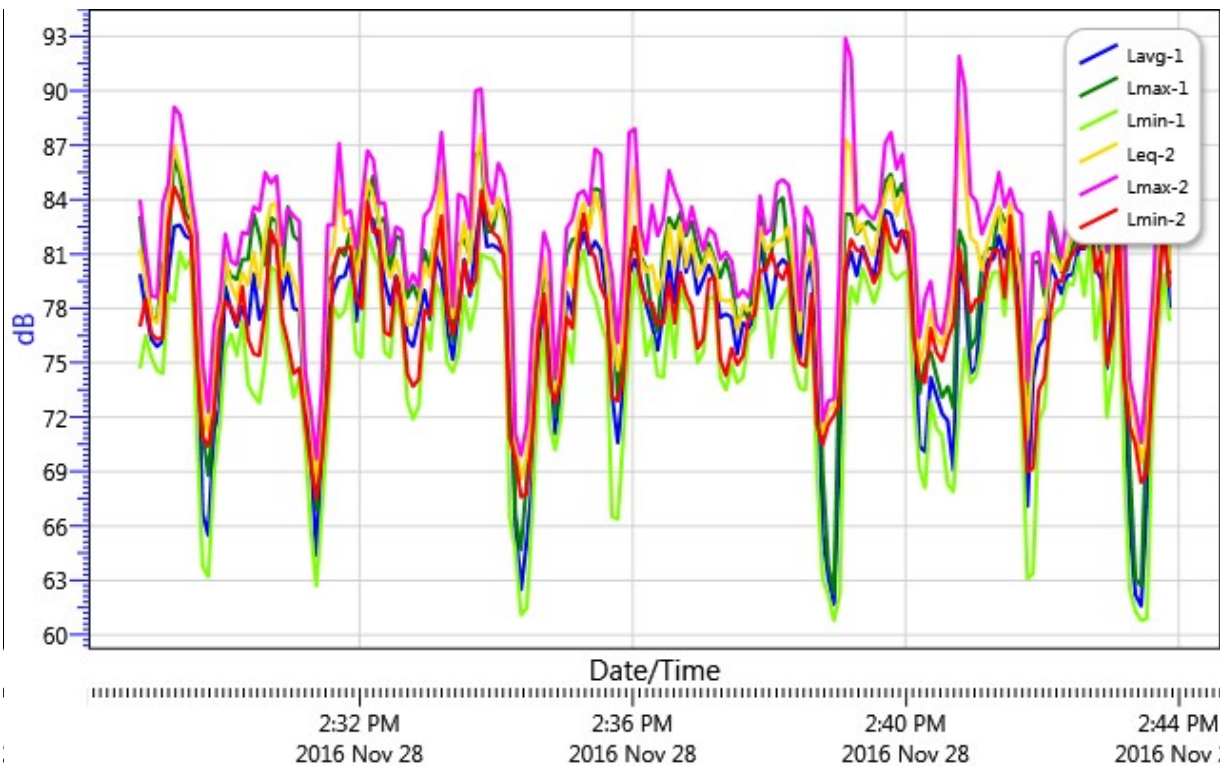
<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	1.3 %	Pdose (8:00)	1	40.8 %
Lavg	1	78.5 dB	Lpk	1	98.5 dB
Leq	1	--	TWA	1	53.6 dB
UL Time	1	00:00:00	SEL	1	127.6 dB
ProjectedTWA (8:00)	1	78.5 dB	Mntime	1	11/28/2016 2:31:19 PM
Mxtime	1	11/28/2016 2:39:06 PM	PKtime	1	11/28/2016 2:29:13 PM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	1.4 %	Pdose (8:00)	2	44.4 %
Lavg	2	--	Lpk	2	98.5 dB
Leq	2	81.4 dB	TWA	2	66.4 dB
UL Time	2	00:01:01	SEL	2	111 dB



ProjectedTWA (8:00)	2	81.4 dB	Mntime	2	11/28/2016 2:38:55 PM
Mxtime	2	11/28/2016 2:33:42 PM	PKtime	2	11/28/2016 2:29:15 PM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S008\_BLN070008\_28112016\_211706: Logged Data Chart - Read Only



**APPENDIX B1**

Noise levels at the Woodley Park site during mid-morning

# Session Report

12/2/2016

## General Information

Name S003\_BLN070008\_28112016\_211947  
Comments  
Start Time 11/28/2016 12:13:09 PM  
Stop Time 11/28/2016 12:28:51 PM  
Run Time 00:15:42  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

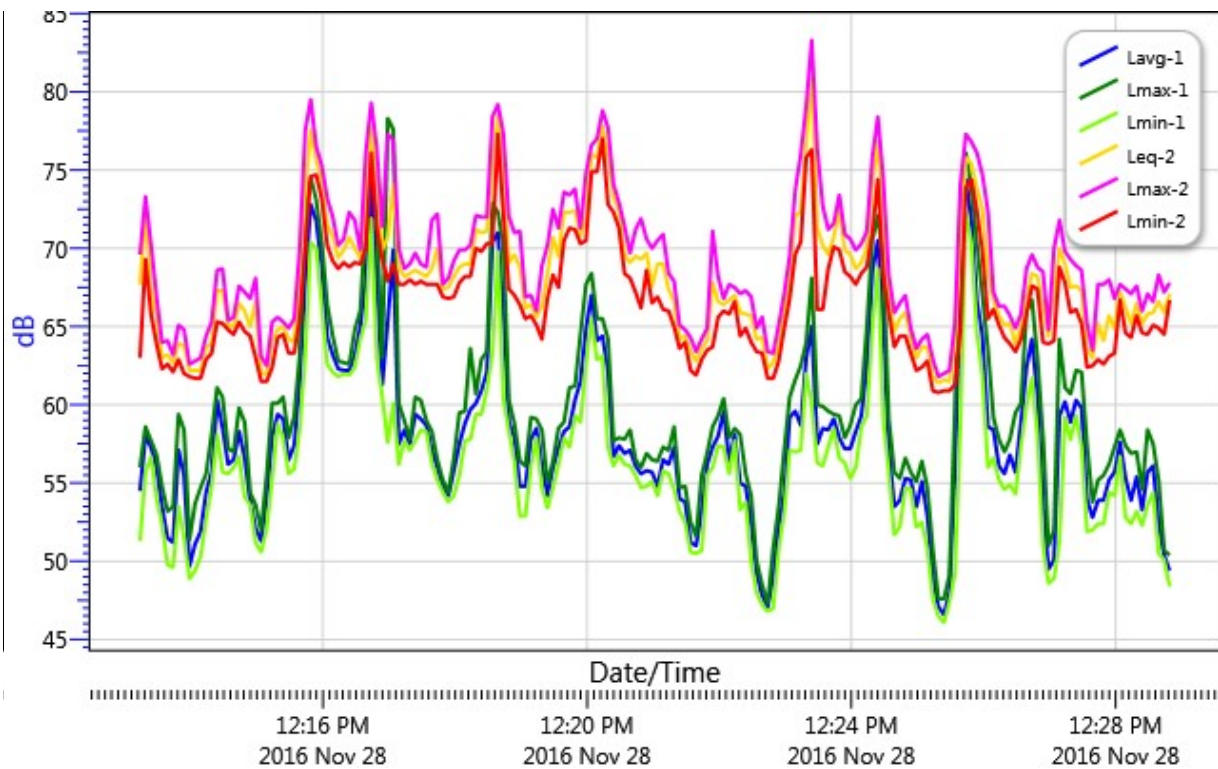
## Summary Data

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	0.1 %	Pdose (8:00)	1	3.3 %
Lavg	1	60.3 dB	Lpk	1	97.7 dB
Leq	1	--	TWA	1	35.7 dB
UL Time	1	00:00:00	SEL	1	109.7 dB
ProjectedTWA (8:00)	1	60.3 dB	Mntime	1	11/28/2016 12:25:15 PM
Mxtime	1	11/28/2016 12:23:20 PM	PKtime	1	11/28/2016 12:16:58 PM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	0.1 %	Pdose (8:00)	2	3.3 %
Lavg	2	--	Lpk	2	96 dB
Leq	2	70.1 dB	TWA	2	55.3 dB
UL Time	2	00:00:00	SEL	2	99.9 dB

ProjectedTWA (8:00)	2	70.1 dB	Mntime	2	11/28/2016 12:25:20 PM
Mxtime	2	11/28/2016 12:16:58 PM	PKtime	2	11/28/2016 12:16:58 PM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S003\_BLN070008\_28112016\_211947: Logged Data Chart - Read Only



**APPENDIX B2**

Noise levels at the Woodley Park site during early-afternoon

# Session Report

12/2/2016

## General Information

Name S007\_BLN070008\_28112016\_211701  
Comments  
Start Time 11/28/2016 1:53:36 PM  
Stop Time 11/28/2016 2:08:41 PM  
Run Time 00:15:05  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

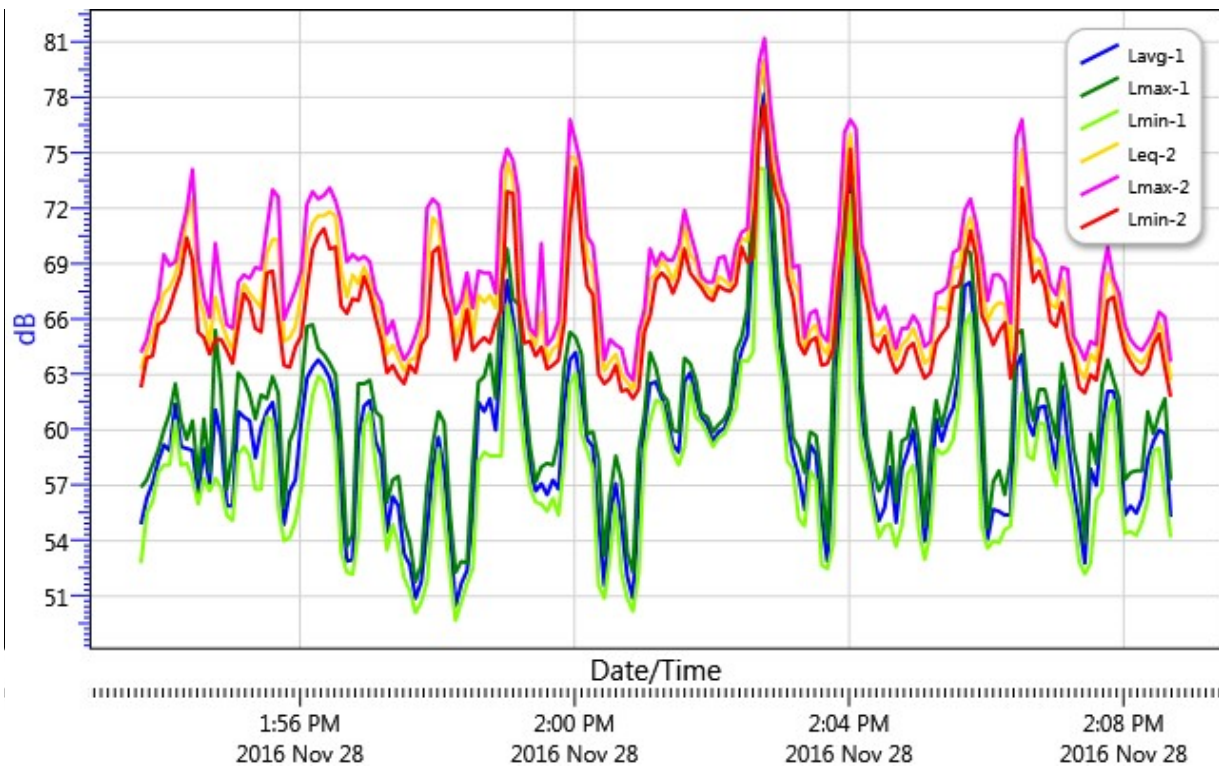
## Summary Data

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	0.1 %	Pdose (8:00)	1	3.7 %
Lavg	1	61.1 dB	Lpk	1	94.4 dB
Leq	1	--	TWA	1	36.2 dB
UL Time	1	00:00:00	SEL	1	110.3 dB
ProjectedTWA (8:00)	1	61.1 dB	Mntime	1	11/28/2016 2:00:49 PM
Mxtime	1	11/28/2016 2:02:43 PM	PKtime	1	11/28/2016 2:02:40 PM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	0.1 %	Pdose (8:00)	2	2.6 %
Lavg	2	--	Lpk	2	94.6 dB
Leq	2	69.1 dB	TWA	2	54 dB
UL Time	2	00:00:00	SEL	2	98.6 dB

ProjectedTWA (8:00)	2	69.1 dB	Mntime	2	11/28/2016 1:58:13 PM
Mxtime	2	11/28/2016 2:02:43 PM	PKtime	2	11/28/2016 2:02:43 PM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S007\_BLN070008\_28112016\_211701: Logged Data Chart - Read Only



**APPENDIX C1**

Noise levels at the South Japanese Gardens site during mid-morning



# Session Report

12/2/2016

## General Information

Name S011\_BLN070008\_01122016\_081819  
Comments  
Start Time 11/30/2016 11:58:27 AM  
Stop Time 11/30/2016 12:13:43 PM  
Run Time 00:15:16  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

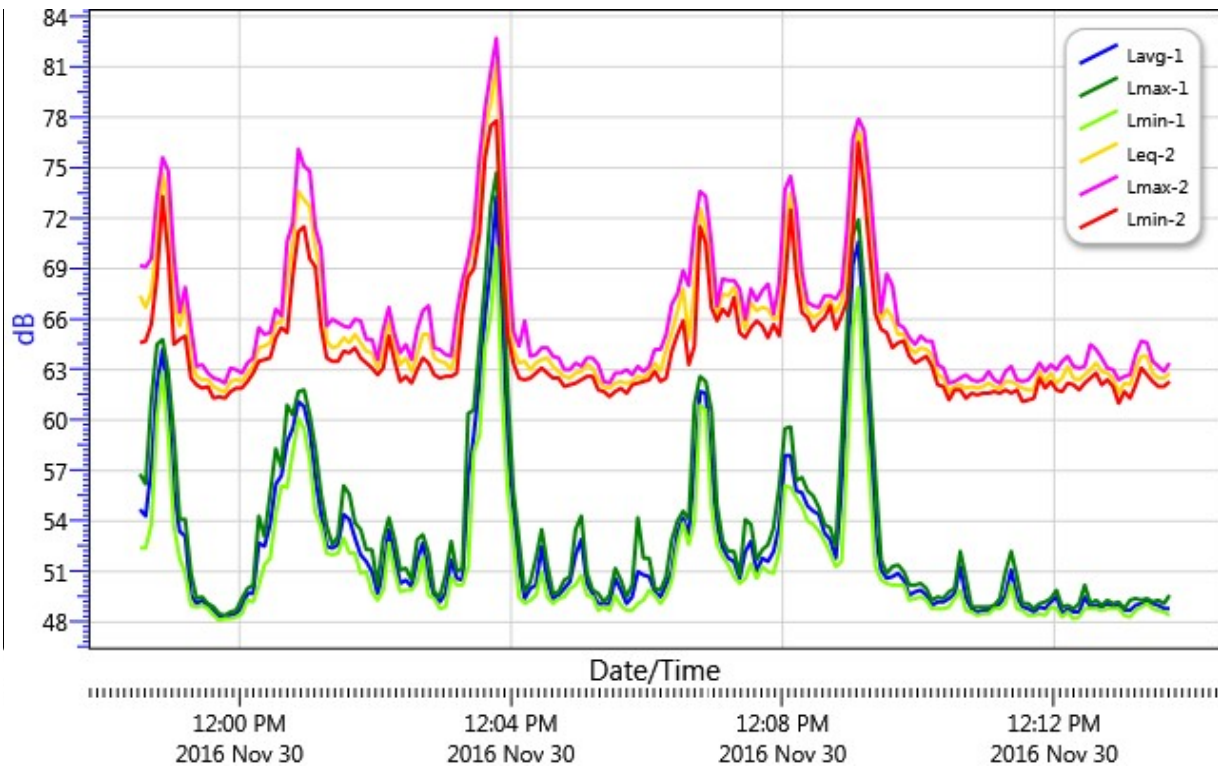
## Summary Data

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	0 %	Pdose (8:00)	1	1.6 %
Lavg	1	55 dB	Lpk	1	89 dB
Leq	1	--	TWA	1	30.1 dB
UL Time	1	00:00:00	SEL	1	104.2 dB
ProjectedTWA (8:00)	1	55 dB	Mntime	1	11/30/2016 12:12:54 PM
Mxtime	1	11/30/2016 12:03:43 PM	PKtime	1	11/30/2016 12:03:43 PM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	0.1 %	Pdose (8:00)	2	2 %
Lavg	2	--	Lpk	2	93.6 dB
Leq	2	67.9 dB	TWA	2	53 dB
UL Time	2	00:00:00	SEL	2	97.6 dB

ProjectedTWA (8:00)	2	67.9 dB	Mntime	2	11/30/2016 11:59:39 AM
Mxtime	2	11/30/2016 12:03:43 PM	PKtime	2	11/30/2016 12:03:42 PM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S011\_BLN070008\_01122016\_081819: Logged Data Chart - Read Only



**APPENDIX C2**

Noise levels at the South Japanese Gardens site during early-afternoon

# Session Report

12/2/2016

## General Information

Name S013\_BLN070008\_01122016\_081829  
Comments  
Start Time 11/30/2016 12:47:31 PM  
Stop Time 11/30/2016 1:02:37 PM  
Run Time 00:15:06  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

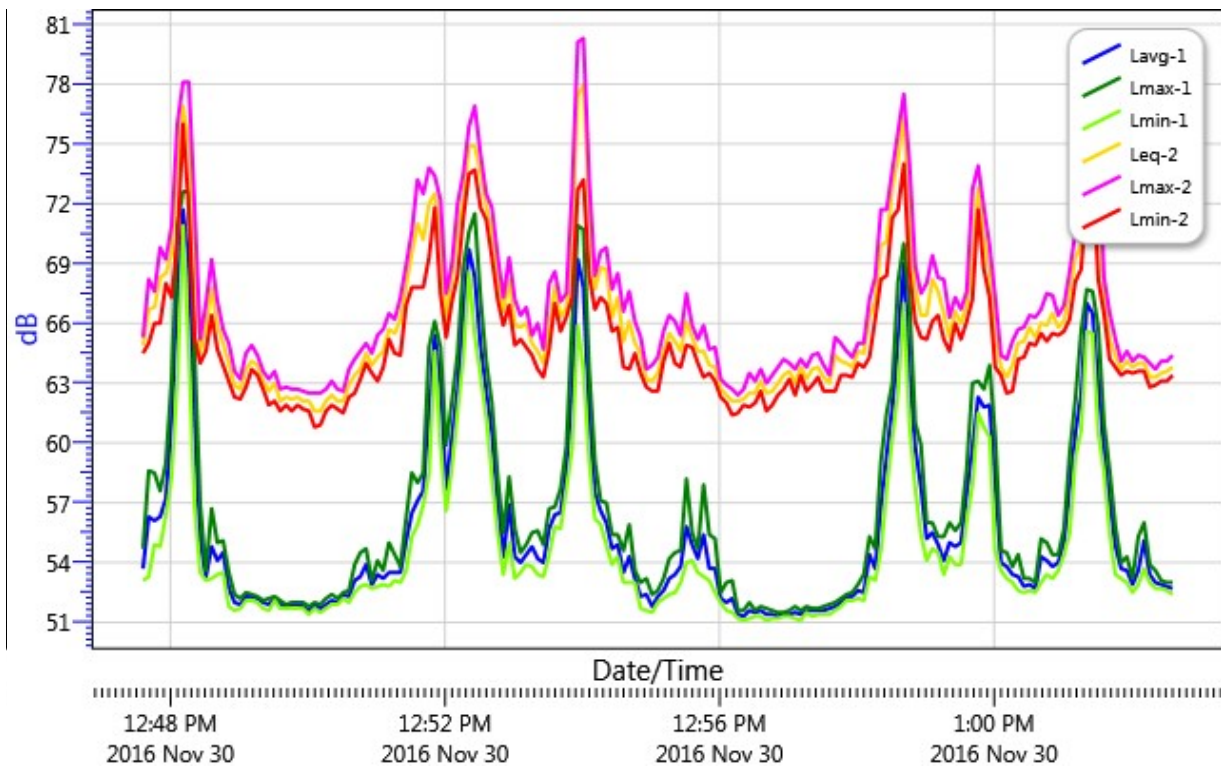
## Summary Data

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	0.1 %	Pdose (8:00)	1	2.3 %
Lavg	1	57.7 dB	Lpk	1	87.4 dB
Leq	1	--	TWA	1	32.7 dB
UL Time	1	00:00:00	SEL	1	106.8 dB
ProjectedTWA (8:00)	1	57.7 dB	Mntime	1	11/30/2016 12:50:03 PM
Mxtime	1	11/30/2016 12:53:57 PM	PKtime	1	11/30/2016 12:53:56 PM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	0.1 %	Pdose (8:00)	2	2.1 %
Lavg	2	--	Lpk	2	90.8 dB
Leq	2	68.2 dB	TWA	2	53.2 dB
UL Time	2	00:00:00	SEL	2	97.7 dB

ProjectedTWA (8:00)	2	68.2 dB	Mntime	2	11/30/2016 12:56:16 PM
Mxtime	2	11/30/2016 12:48:10 PM	PKtime	2	11/30/2016 12:48:10 PM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S013\_BLN070008\_01122016\_081829: Logged Data Chart - Read Only



**APPENDIX D1**

Noise levels at the North Japanese Gardens site during mid-morning

# Session Report

12/2/2016

## General Information

Name S010\_BLN070008\_01122016\_081813  
Comments  
Start Time 11/30/2016 11:32:28 AM  
Stop Time 11/30/2016 11:47:56 AM  
Run Time 00:15:28  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

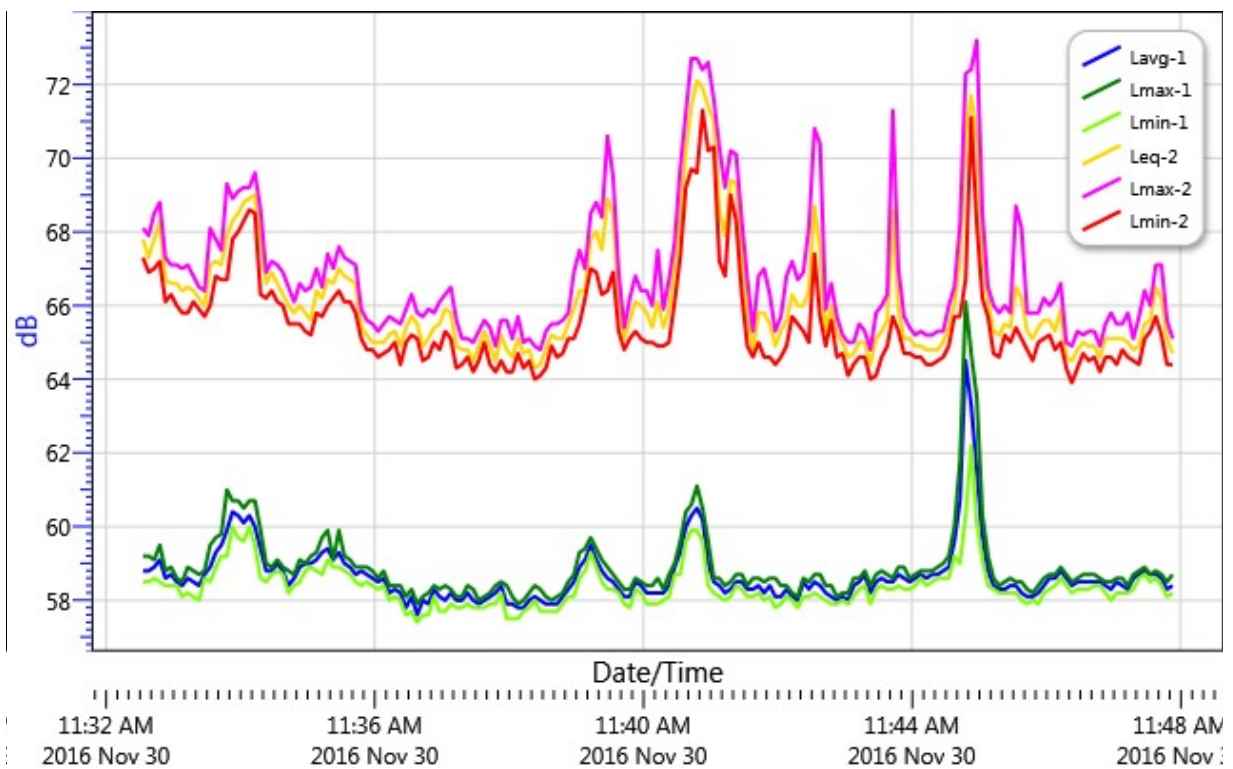
## Summary Data

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	0.1 %	Pdose (8:00)	1	2.6 %
Lavg	1	58.7 dB	Lpk	1	81.7 dB
Leq	1	--	TWA	1	33.9 dB
UL Time	1	00:00:00	SEL	1	108 dB
ProjectedTWA (8:00)	1	58.7 dB	Mntime	1	11/30/2016 11:46:22 AM
Mxtime	1	11/30/2016 11:44:53 AM	PKtime	1	11/30/2016 11:44:52 AM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	0 %	Pdose (8:00)	2	1.4 %
Lavg	2	--	Lpk	2	84.5 dB
Leq	2	66.5 dB	TWA	2	51.6 dB
UL Time	2	00:00:00	SEL	2	96.2 dB

ProjectedTWA (8:00)	2	66.5 dB	Mntime	2	11/30/2016 11:36:35 AM
Mxtime	2	11/30/2016 11:44:45 AM	PKtime	2	11/30/2016 11:33:11 AM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S010\_BLN070008\_01122016\_081813: Logged Data Chart - Read Only





**APPENDIX D2**

Noise levels at the North Japanese Gardens site during early-afternoon

# Session Report

12/2/2016

## General Information

Name S012\_BLN070008\_01122016\_081824  
Comments  
Start Time 11/30/2016 12:20:39 PM  
Stop Time 11/30/2016 12:35:46 PM  
Run Time 00:15:07  
Model Type SoundPro DL  
Serial Number BLN070008  
Device Firmware Rev R.13H  
Company Name  
Description  
Location  
User Name

## Summary Data

<u>Description</u>	<u>Meter</u>	<u>Value</u>	<u>Description</u>	<u>Meter</u>	<u>Value</u>
Dose	1	0.1 %	Pdose (8:00)	1	3.7 %
Lavg	1	61.2 dB	Lpk	1	88.2 dB
Leq	1	--	TWA	1	36.2 dB
UL Time	1	00:00:00	SEL	1	110.3 dB
ProjectedTWA (8:00)	1	61.2 dB	Mntime	1	11/30/2016 12:34:25 PM
Mxtime	1	11/30/2016 12:25:32 PM	PKtime	1	11/30/2016 12:25:33 PM
Weighting	1	--	Range Ceiling	1	--
Criterion Level	1	--	ULL	1	--
Dynamic Range	1	--	Exchange Rate	1	--
Response	1	--	Int Threshold	1	--
Alarm Level 1	1	--	AlarmLevel2	1	--
Dosimeter Name	1	--			
Dose	2	0.1 %	Pdose (8:00)	2	4 %
Lavg	2	--	Lpk	2	92.6 dB
Leq	2	70.9 dB	TWA	2	55.9 dB
UL Time	2	00:00:00	SEL	2	100.5 dB

ProjectedTWA (8:00)	2	70.9 dB	Mntime	2	11/30/2016 12:30:22 PM
Mxtime	2	11/30/2016 12:27:51 PM	PKtime	2	11/30/2016 12:25:23 PM
Weighting	2	C	Range Ceiling	2	--
Criterion Level	2	85 dB	ULL	2	85 dB
Dynamic Range	2	--	Exchange Rate	2	3 dB
Response	2	SLOW	Integrating Threshold	2	80 dB
Alarm Level 1	2	--	AlarmLevel2	2	--
Dosimeter Name	2	--			

## Logged Data Chart

S012\_BLN070008\_01122016\_081824: Logged Data Chart - Read Only

