



Los Angeles Department of Water and Power
Baseline Noise Monitoring Report
Silver Lake Reservoir Complex Bypass Project
March 27, 2015

Purpose and Objective

The Los Angeles Department of Water and Power (LADWP) is preparing to initiate construction of the Silver Lake Reservoir Complex (SLRC) Bypass Project as part of its compliance efforts to address updated state and federal drinking water regulations. The project consists of installing approximately 1,600 linear feet of welded steel pipe via trenching within West Silver Lake Drive from Armstrong Avenue to the northwest corner of Silver Lake Reservoir, approximately 3,000 linear feet of welded steel pipe within the Silver Lake Reservoir Complex property primarily along the bottom of Silver Lake Reservoir, and a regulator station on the northwest bank of Silver Lake Reservoir to provide necessary control of water pressure in the pipeline. The commencement of construction is anticipated in late March 2015.

Prior to initiating construction, LADWP has requested ESA to complete a baseline analysis of noise conditions for the project's work areas located outside the property and along the western side of the Silver Lake Reservoir. These two work areas are referred to as Work Area 1 and Work Area 2. The project site, proposed work areas, and surrounding residential uses are illustrated in **Figure 1**.

To establish the baseline noise levels at Work Areas 1 and 2, ESA conducted short-term ambient daytime noise readings at two receptor locations in the vicinity of each of the two work areas. Each noise measurement session consisted of one hour of continuous noise level measurements at each receptor location. During each measurement session, an ESA technician recorded observations of the noise environment to identify the primary sources of noise in the work area. All noise monitors were calibrated immediately before and after each monitoring session.

Noise Monitoring Approach

Noise monitoring was conducted by ESA on March 10, 2015 between 9:48 A.M. and 12:15 P.M. at receptor locations in the vicinity of Work Areas 1 and 2. The receptor locations selected for noise monitoring were determined by ESA in coordination with LADWP. The receptor locations selected for noise measurements corresponding to the two work areas, along with their measurement dates and periods, are shown in **Table 1**. The proposed project's work areas are depicted on **Figure 1** and the receptor locations are graphically shown on **Figure 2**.



SOURCE: ESRI

LADWP RSC Silver Lake Project . 130500.22

Figure 2
 Work Areas 1 and 2
 Baseline Noise Measurement Locations

**TABLE 1
WORK AREAS AND RECEPTOR LOCATIONS**

Work Areas	Receptors	Date of Noise Measurement	Measurement Period
1	Receptor 1	March 10, 2015	9:48 a.m. – 10:50 a.m.
	Receptor 2	March 10, 2015	9:46 a.m. – 10:51 a.m.
2	Receptor 3	March 10, 2015	11:08 a.m. – 12:12 p.m.
	Receptor 4	March 10, 2015	11:12 a.m. – 12:15 p.m.

Noise Monitoring Results and Observations

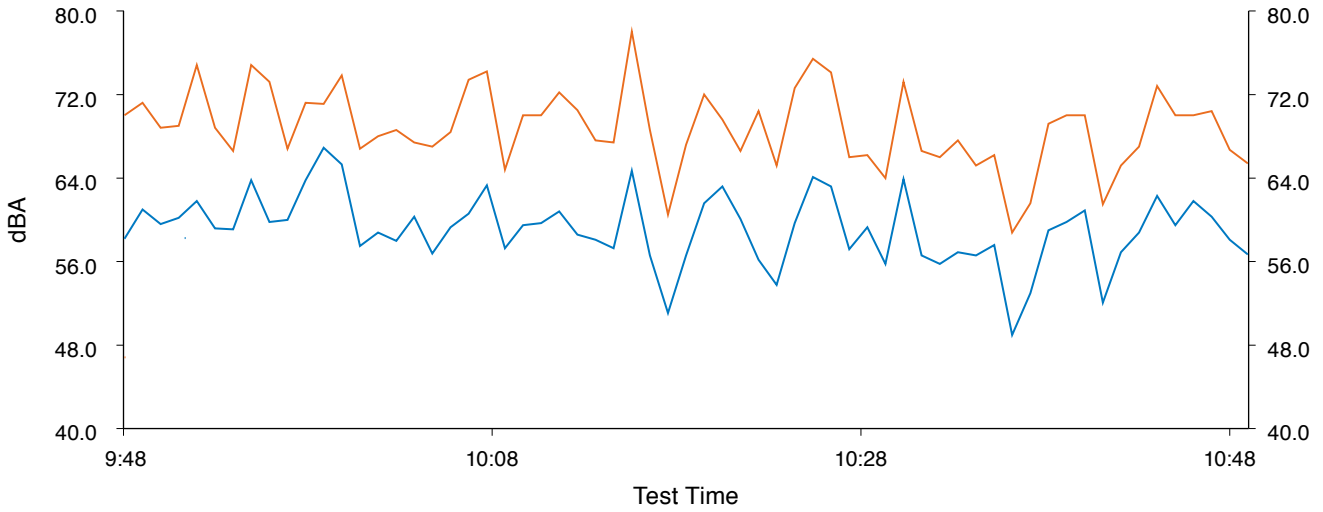
The noise measurement results for each of the selected receptor locations, along with a general description of the various noise sources and activities that occurred during each measurement, are depicted in **Table 2**. Additionally, the noise levels measured at each of the two receptor locations for Work Area 1 and Work Area 2 are also represented graphically in **Figure 3** and **Figure 4**, respectively. Furthermore, the detailed monitoring logs that recorded the various noise sources encountered during the hour-long noise measurements and their time of occurrence at each of the receptor locations are provided in **Attachment A**.

As presented in Table 2, the existing baseline noise levels measured at the selected receptor locations ranged from 58.5 dBA L_{eq} at Receptor 3 to 61.2 dBA L_{eq} at Receptor 4. The most common and constant noise sources observed during the measurements consisted mostly of roadway traffic, aircrafts flying overhead, and pedestrian traffic and activities. Noise contributions from other secondary sources, aside from vehicle traffic, included barking dogs and the brief operation of a crane and water truck within the reservoir property. Overall, the noise sources observed during the baseline noise measurements are considered to be typical of most suburban environments.

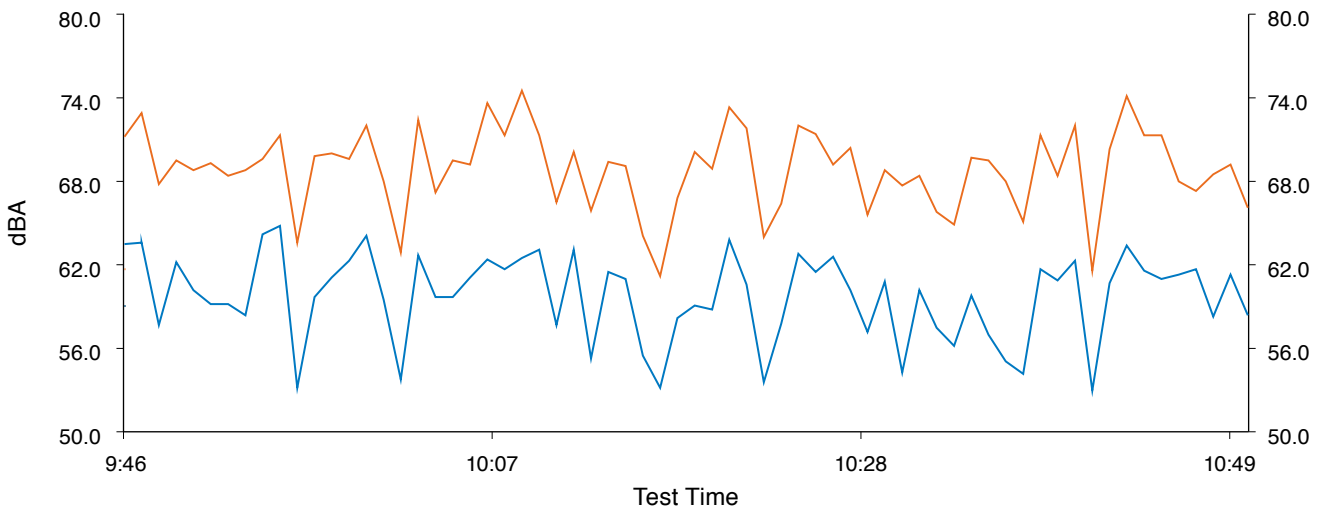
**TABLE 2
RECEPTOR LOCATION NOISE LEVELS**

Receptors	Land Use Type	Hourly Average Noise Level (L _{eq} dBA)	Hourly Maximum Noise Level (L _{max} dBA)	Noise Sources/Activities During Measurement
1		60.3	78.0	<ul style="list-style-type: none"> • Vehicles traveling and parking on West Silver Lake Drive • Car horn sounds • Pedestrians and joggers on the sidewalk • Crow cawing • Lawn maintenance equipment across street • Helicopters flying by overhead • Dogs making noise from afar
2		60.7	74.5	<ul style="list-style-type: none"> • Vehicles traveling and parking on West Silver Lake Drive • Dog barking • Pedestrians and joggers on the sidewalk • Train noise from afar • Helicopters flying by overhead
3		58.5	72.0	<ul style="list-style-type: none"> • Vehicles traveling on West Silver Lake Drive • Loud truck on reservoir property driving around • Dogs barking in the distance • Propeller plane and helicopter flying by overhead periodically • Pedestrians and joggers on the sidewalk adjacent to reservoir property • Back-up alarm from truck within reservoir property
4		61.2	76.6	<ul style="list-style-type: none"> • Vehicles traveling on West Silver Lake Drive • Crane operating within reservoir property • Water truck back-up alarm sounds within reservoir property • Birds chirping • Propeller plane and helicopter flying by overhead periodically • Pedestrians and joggers on the sidewalk adjacent to reservoir property

Receptor Location 1
OverAll Lav = 60.3dB



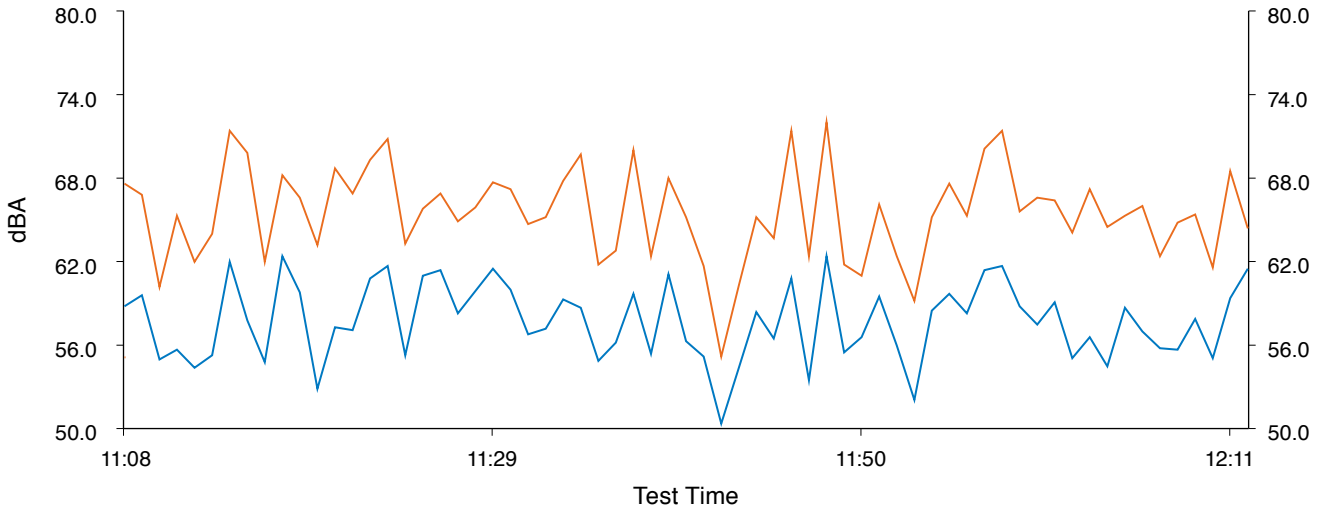
Receptor Location 2
OverAll Lav = 60.7dB



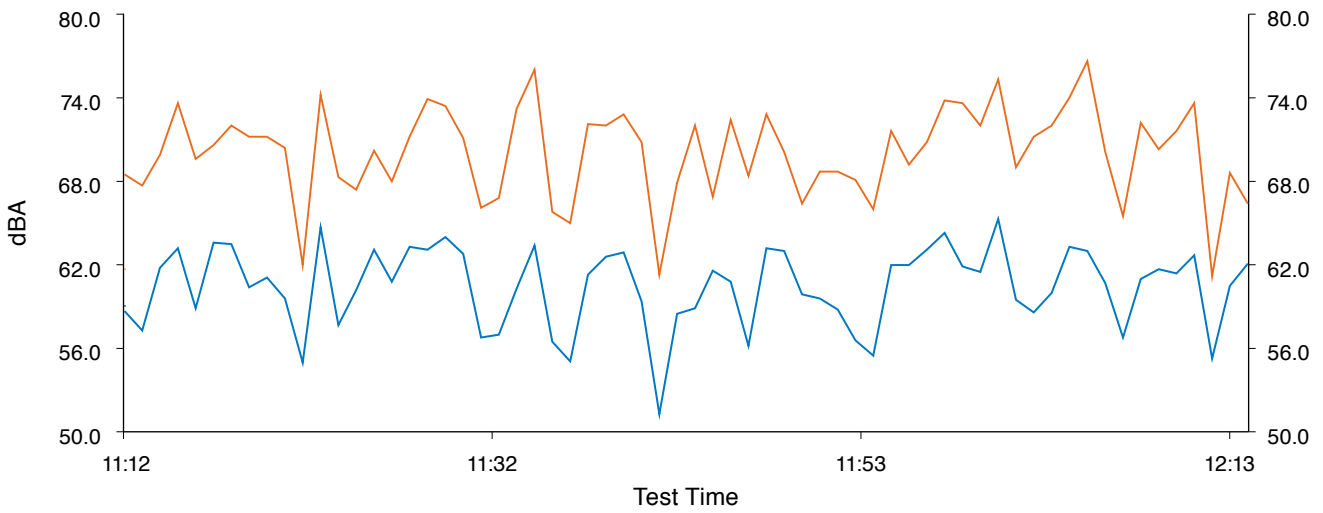
— Lmax
— Lav

Figure 3
Baseline Noise Measurement Results – Work Area 1
March 10, 2015; 9:48am – 10:51am

Receptor Location 3
OverAll Lav = 58.5dB



Receptor Location 4
OverAll Lav = 61.2dB



— Lmax
— Lav

Figure 4
Baseline Noise Measurement Results – Work Area 2
March 10, 2015; 11:08am – 12:15pm



APPENDIX A

Baseline Noise Monitoring Logs

Baseline Noise Monitoring Log

Project: LADWP RSC Silverlake

Site Location: Silver Lake, CA

Date: 3/10/2015

Temperature: 63° F

Weather Conditions: Sunny

Monitoring Location: Receptor 1

<u>Time</u>	<u>Noise Source</u>
9:48 AM	Traffic on W. Silverlake Drive - constant/dominant noise source
9:52 AM	Car honks
9:53 AM	Car across street starts; car drives by
9:54 AM	Jogger runs by monitor
9:58 AM	Noisy van pulls up along sidewalk near noise monitor
10:00 AM	Noisy van drives away from sidewalk
10:01 AM	Pick-up truck drives by
10:02 AM	Mail truck across street starts engine and pulls out from sidewalk
10:05 AM	Car horn sounding from afar; lawn maintenance equipment from across street
10:08 AM	MTA Bus drives by
10:10 AM	Crow cawing
10:13:00 - 10:20:00 AM	Lawn maintenance equipment from across street (constant background noise)
10:15 AM	Joggers running by monitor
10:16 AM	MTA Bus drives by, stops at intersection, and accelerates again
10:17 AM	Jogger runs by monitor
10:20 AM	Loud pick-up truck drives by
10:21 AM	Helicopter flies by overhead
10:23 AM	Pedestrians conversing while walking by monitor; dogs barking from afar
10:25 AM	Noisy school bus drives by; dogs barking from afar
10:26 AM	Helicopter flying by overhead

10:27 AM	Crow cawing; loud car drives by
10:28 AM	Crow cawing
10:29 AM	Helicopter flying by overhead
10:30 AM	Crow cawing
10:31 AM	School bus drives by
10:33 AM	Jogger runs by monitor
10:34 AM	Jogger runs by monitor
10:37 AM	Pedestrians conversing while walking by monitor
10:47 AM	Helicopter flying by overhead
10:48 AM	Dogs making high pitch noise; helicopter from afar

Baseline Noise Monitoring Log

Project: Silverlake/LADWP reservoir

Site Location: Silverlake and Putnam

Date: 3/4/15

Temperature: 70 degrees F

Weather Conditions: sunny, clear, warm, minimal breeze

Monitoring Location: Receptor 2

<u>Time</u>	<u>Noise Source</u>	<u>Notes</u>
9:47 AM	Cars driving by (normal size)	
9:48 AM	Car driving by	
9:49 AM	Car driving by	
9:49 AM	Dog barking	
9:50 AM	Loud delivery truck	
9:51 AM	Large truck	
9:52 AM	Car started next to me	
9:54 AM	Car drove by	
9:55 AM	Loud mercedes, loud van drive by	
9:56 AM	Prius pulled up	
9:57 AM	Phone in car ringing	
10:00 AM	Runner ran by	
10:02 AM	Loud car, car started	
10:03 AM	Loud music coming from residence	
10:06 AM	Train in the distance, car starts up, mailtruck pulls up right in front	
10:08 AM	Woman walks by, talking, and bus drives by	
10:10 AM	Two different cars starts up	
10:11 AM	Loud truck pulls up	
10:14 AM	Woman talks to herself	
10:15 AM	Train in the distance	
10:16 AM	Loud bus drives by	
10:17 AM	Cars pulls up in front of people, speaking in Spanish	
10:18 AM	Cyclist, person drives by	

10:22 AM	Plane flies overhead
10:24 AM	Person loudly walks by
10:25 AM	Loud car drives by, people walk by
10:26 AM	Bus drives by
10:27 AM	Person loudly walks by
10:29 AM	Helicopter flies overhead
10:32 AM	Car drives by
10:36 AM	Large truck drives by
10:39 AM	Person rides by on a scooter
10:44 AM	Car drives by
10:46 AM	Woman walks by, talking
10:48 AM	Helicopter flies overhead, truck pulls up in front
10:49 AM	Car stalled in front of monitor
10:52 AM	End

Baseline Noise Monitoring Log

Project: Silverlake/LADWP reservoir

Site Location: Silverlake and Putnam

Date: 3/4/15

Temperature: 70 degrees F

Weather Conditions: sunny, clear, warm, minimal breeze

Monitoring Location: Receptor 3

<u>Time</u>	<u>Noise Source</u>	<u>Notes</u>
11:09 AM	Loud truck drives by	
11:10 AM	Loud truck on reservoir property drives around	
11:16 AM	Dogs are barking in the distance	
11:18 AM	Plane flies overhead	
11:19 AM	Construction equipment in the distance	
11:21 AM	Loud truck drives by	
11:33 AM	Loud truck on reservoir property drives around	
11:25 AM	Plane flies overhead	
11:26 AM	Plane flies overhead	
11:27 AM	Helicopter flies overhead	
11:28 AM	Helicopter flies overhead	
11:30 AM	Motorcycle drives by	
11:32 AM	Helicopter flies overhead	
11:35 AM	Loud car drives by	
11:36 AM	Loud baby cries	
11:37 AM	Loud truck drives by on reservoir property	
11:38 AM	Loud car drives by	
11:41 AM	Distant helicopter flies overhead	
11:42 AM	Car starts across the street	
11:46 AM	Bus drives by	
11:47 AM	Little girl giggles	
11:51 AM	Loud truck drives by	

11:52 AM	Runner's music is loud as the person passes
11:53 AM	Constuction truck across the street is beeping
11:57 AM	Bus drives by
11:58 AM	Truck drives by
12:05 PM	Loud truck drives by
12:08 PM	Distant construction sounds occur
12:11 PM	People are talking on the corner of the reservoir
12:12 PM	Woman walked down steps next to monitor, reservoir constuction equipment turned on
12:13 PM	End

Baseline Noise Monitoring Log

Project: LADWP RSC Silverlake

Site Location: Silver Lake, CA

Date: 3/10/2015

Temperature: 70° F

Weather Conditions: Sunny

Monitoring Location: Receptor 4

<u>Time</u>	<u>Noise Source</u>
	Primary noise consist of constant traffic on W. Silverlake Drive, pedestrains jogging and walking along reservoir property line, and birds chirping
11:13 AM	Crane operating within reservoir property lifting k-rails
11:14 AM	Crane operating within reservoir property
11:15 AM	Car driving by very fast
11:16 AM	Birds chirping
11:18 AM	Crane revving engine, then stops
11:19 AM	Water truck back-up alarm sounds within reservoir property
11:21 AM	Water truck back-up alarm sounds within reservoir property
11:22 AM	Water truck waters unpaved surface within reservoir property
11:24:00 to 11:26:00 AM	Propeller plane from afar
11:26 AM	Water truck back-up alarm sounds within reservoir property; helicopter flying overhead
11:28 AM	Small aircraft flying by overhead
11:35 AM	Child singing across street; propeller plane noise from afar
11:41 AM	Child singing across street
11:44 AM	Jogger runs by monitor; pedestrains talking
11:46 AM	MTA Bus drives by (not relatively loud)
11:52 AM	Car horn (sounding of alarm)
11:58 AM	Water truck back-up alarm sounds within reservoir property

12:13 PM

Flat-bed truck driving slowly within reservoir property