FIELD NOISE MEASUREMENT DATA

Jones & Stokes

PROJECT: Otay River Restoration PROJ. # 60526.15

SITE IDENTIFICATION: ST1 OBSERVER(S): Eric Moskus

ADDRESS: Otay River County Park

START DATE / TIME: 10/23/15 / 11:39 am END DATE / TIME: 10/23/15 12:05 pm

METEROLOGICAL CONDITIONS:

TEMP: 77 °F HUMIDITY: 56 %R.H. WIND: ~~CALM~~ LIGHT MODERATE VARIABLE

WINDSPEED: 1-4 MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: ~~SUNNY~~ CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: LD 831 TYPE: (1) 2 SERIAL #: 0003786

CALIBRATOR: LD CAL 200 SERIAL #: 66645

CALIBRATION CHECK: PRE-TEST 114.0 dBA SPL POST-TEST 114.04 dBA SPL WINDSCREEN

SETTINGS: ~~A-WEIGHTED~~ ~~SLOW~~ FAST FRONTAL ~~RANDOM~~ ~~ANSI~~ OTHER:

REC #	START	END	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	~~OTHER:~~ LF.83	~~(TYPE?)~~ C1.67	L25
080	11:39	12:05	40.9	54.9	32.7	34.4	37.2	45.3	45.7	48.7	40.5

COMMENTS:
- very distant hammering (?)
- distant people talking
- paused for maintenance crew near mic
- semi-frequent aircraft passby's
- some local birds nearby

SOURCE INFO AND TRAFFIC COUNTS:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL ~~AMBIENT~~ OTHER:

ROADWAY TYPE:

TRAFFIC COUNT DURATION: ____-MIN

	SPEED NB / EB	SPEED SB / WB	#2 COUNT NB / EB	#2 COUNT SB / WB	#2 SPEED NB / EB	#2 SPEED SB / WB
AUTOS:						
MED. TRUCKS:						
HVY TRUCKS:						
BUSES:						
MOTORCYCLES:						

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

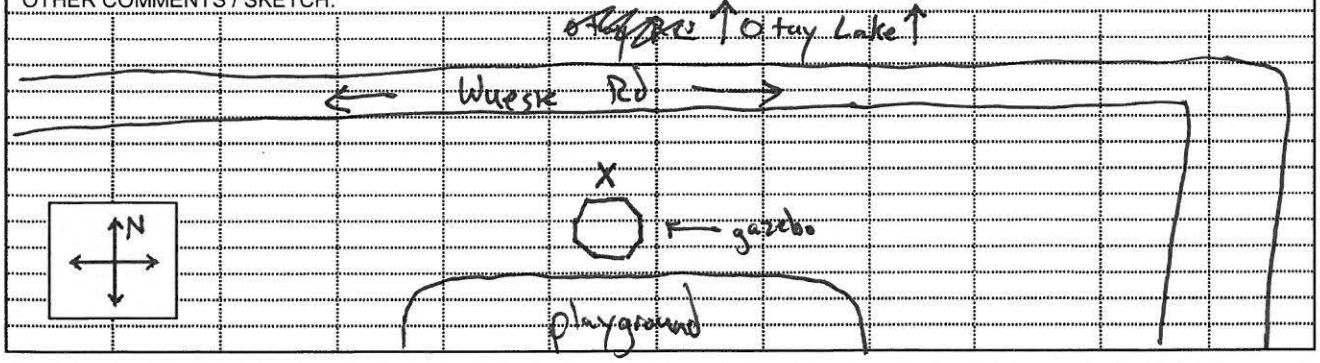
OTHER SOURCES: ~~DIST. AIRCRAFT~~ RUSTLING LEAVES / DIST. BARKING DOGS / ~~BIRDS~~ / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD ~~SOFT~~ MIXED FLAT OTHER:

PHOTOS:

OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

Jones & Stokes

PROJECT: Otay River Restoration PROJ. # 00526.15

SITE IDENTIFICATION: ST2 OBSERVER(S): Eric Moskus

ADDRESS: South of Otay Water Treatment Plant

START DATE / TIME: 10/23/15 12:54 END DATE / TIME: 10/23/15 13:20

METEROLOGICAL CONDITIONS:

TEMP: 91 °F HUMIDITY: 59 %R.H. WIND: CALM (LIGHT) MODERATE (VARIABLE)

WINDSPEED: 2-9 MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: ~~SUNNY~~ ~~CLEAR~~ OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: CD 831 TYPE: (1) 2 SERIAL #: 0003780

CALIBRATOR: CD CAL 200 SERIAL #: 6645

CALIBRATION CHECK: PRE-TEST 114.3 dBA SPL POST-TEST 113.80 dBA SPL WINDSCREEN (Y)

SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER:

REC #	START	END	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	~~OTHER:~~ 68.93	~~(TYPE?)~~ 6667	625
081	12:54	13:20	39.3	58.5	26.5	27.9	31.9	43.8	44.5	47.9	38.8

COMMENTS: ~paused for military jets; wind gust

SOURCE INFO AND TRAFFIC COUNTS:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL (AMBIENT) OTHER:

ROADWAY TYPE:

TRAFFIC COUNT DURATION: ____-MIN SPEED #2 COUNT SPEED

	NB / EB	SB / WB	NB / EB	SB / WB	NB / EB	SB / WB	NB / EB	SB / WB
AUTOS:								
MED. TRUCKS:								
HVY TRUCKS:								
BUSES:								
MOTORCYCLES:								

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER SOURCES: (DIST. AIRCRAFT) / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL

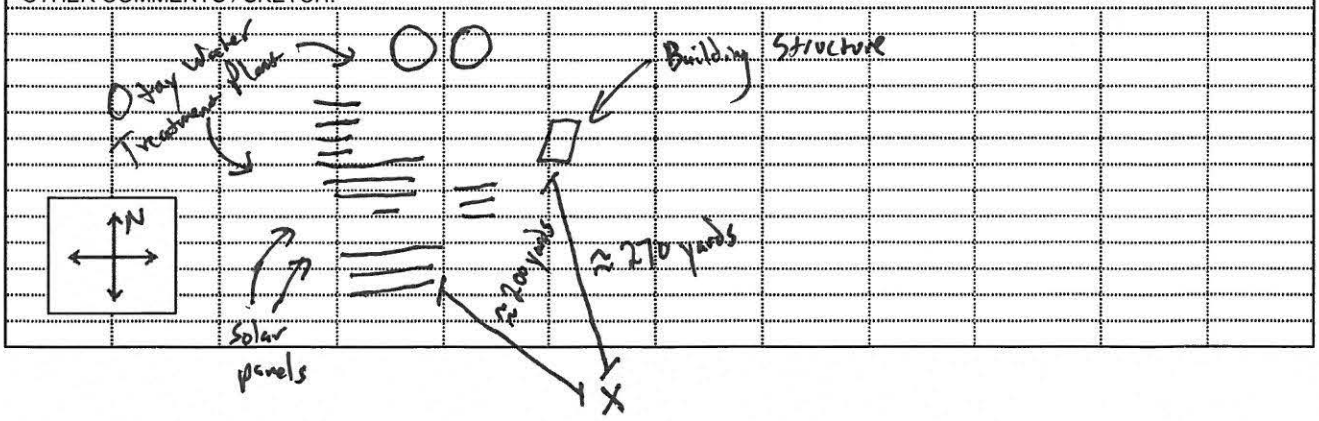
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD (SOFT) MIXED FLAT OTHER:

PHOTOS:

OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

Jones & Stokes

PROJECT: Otay River Restoration PROJ. # 00526.15

SITE IDENTIFICATION: ST3 OBSERVER(S): Eric Moskus

ADDRESS: ~~Kuiper~~ George Bailey Detention Facility

START DATE / TIME: 10/23/15 10:02 am END DATE / TIME: 10/23/15 10:56 am

METEROLOGICAL CONDITIONS:

TEMP: 75 °F HUMIDITY: 51 %R.H. WIND: (CALM) LIGHT MODERATE VARIABLE

WINDSPEED: 2-4 MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: ~~SUNNY~~ (CLEAR) OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: LO831 TYPE: (1) 2 SERIAL #: 0003786

CALIBRATOR: LD CAL 200 SERIAL #: 6645

CALIBRATION CHECK: PRE-TEST 114.0 dBA SPL POST-TEST 113.93 dBA SPL WINDSCREEN ✓

SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER:

REC #	START	END	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	~~OTHER:~~ L2.33	L1.67 (~~TYPE?~~)	L25
.079	10:02	10:56	47.5	63.7	38.2	40.5	44.1	50.4	51.1	56.6	47.2

COMMENTS: - have to pause and noise from nearby construction equipment - roofing construction
- pausing due to noise at nearby garage; idling garbage truck
- lots of miscellaneous noise from within the prison

SOURCE INFO AND TRAFFIC COUNTS:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL (AMBIENT) OTHER:

ROADWAY TYPE:

TRAFFIC COUNT DURATION: ____-MIN

	SPEED NB / EB	SPEED SB / WB	#2 COUNT NB / EB	#2 COUNT SB / WB	SPEED NB / EB	SPEED SB / WB
AUTOS:						
MED. TRUCKS:						
HVY TRUCKS:						
BUSES:						
MOTORCYCLES:						

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER SOURCES: ~~DIST. AIRCRAFT~~ / RUSTLING LEAVES / DIST. BARKING DOGS / (BIRDS) / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / (DIST. TRAFFIC) / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: (HARD) SOFT (MIXED) FLAT OTHER:

PHOTOS:

OTHER COMMENTS / SKETCH:

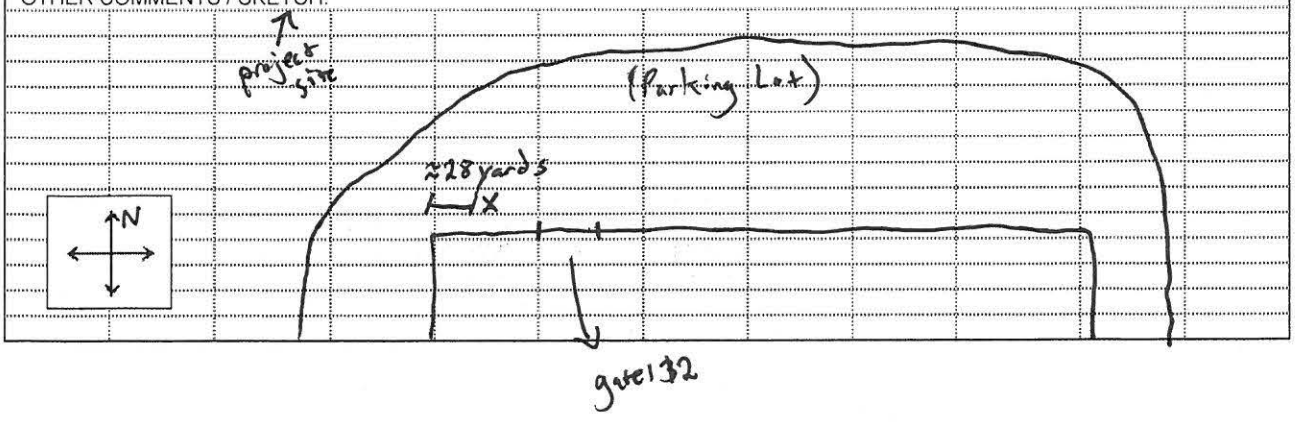


Table 1. High Teach High Chula Vista Phase 1 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	2	6300	soft	0	28
72	Truck, Haul	76.5	0.4	1	6300	soft	0	20
29	Loader (Front End Loader)	79.1	0.4	1	6300	soft	0	23
23	Grader	85	0.4	1	6300	soft	0	29
18	Excavator	80.7	0.4	2	6300	soft	0	27
70	Truck, Water	76.5	0.4	3	6300	soft	0	25
	Combined Equipment							***34***

Table 2. High Teach High Chula Vista Phase 2 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	3	6300	soft	0	30
72	Truck, Haul	76.5	0.4	4	6300	soft	0	26
29	Loader (Front End Loader)	79.1	0.4	1	6300	soft	0	23
23	Grader	85	0.4	1	6300	soft	0	29
18	Excavator	80.7	0.4	2	6300	soft	0	27
71	Grizzly Screen	87	0.5	1	6300	soft	0	31
70	Truck, Water	76.5	0.4	3	6300	soft	0	25
	Combined Equipment							***37***

Table 3. Otay Lake County Park Phase 1 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	2	3900	soft	0	33
72	Truck, Haul	76.5	0.4	1	3900	soft	0	25
29	Loader (Front End Loader)	79.1	0.4	1	3900	soft	0	28
23	Grader	85	0.4	1	3900	soft	0	34
18	Excavator	80.7	0.4	2	3900	soft	0	32
70	Truck, Water	76.5	0.4	3	3900	soft	0	30
	Combined Equipment							***39***

Table 4. Otay Lake County Park Phase 2 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	3	3900	soft	0	35
72	Truck, Haul	76.5	0.4	4	3900	soft	0	31
29	Loader (Front End Loader)	79.1	0.4	1	3900	soft	0	28
23	Grader	85	0.4	1	3900	soft	0	34
18	Excavator	80.7	0.4	2	3900	soft	0	32
71	Grizzly Screen	87	0.5	1	3900	soft	0	37
70	Truck, Water	76.5	0.4	3	3900	soft	0	30
	Combined Equipment							***42***

1. Obtained or estimated from:
"Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or
FHWA Roadway Construction Noise Model (RCNM), Version 1.0, February 2, 2006; and/or
"Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971
2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use

Table 5. George Bailey Detnetion Center Phase 1 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	2	6000	soft	0	29
72	Truck, Haul	76.5	0.4	1	6000	soft	0	21
29	Loader (Front End Loader)	79.1	0.4	1	6000	soft	0	23
23	Grader	85	0.4	1	6000	soft	0	29
18	Excavator	80.7	0.4	2	6000	soft	0	28
70	Truck, Water	76.5	0.4	3	6000	soft	0	25
	Combined Equipment							***34***

Table 6. George Bailey Detnetion Center Phase 2 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	3	6000	soft	0	31
72	Truck, Haul	76.5	0.4	4	6000	soft	0	27
29	Loader (Front End Loader)	79.1	0.4	1	6000	soft	0	23
23	Grader	85	0.4	1	6000	soft	0	29
18	Excavator	80.7	0.4	2	6000	soft	0	28
71	Grizzly Screen	87	0.5	1	6000	soft	0	32
70	Truck, Water	76.5	0.4	3	6000	soft	0	25
	Combined Equipment							***37***

Table 7. Richard J. Donavan Correctional Facility Phase 1 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	2	4700	soft	0	31
72	Truck, Haul	76.5	0.4	1	4700	soft	0	23
29	Loader (Front End Loader)	79.1	0.4	1	4700	soft	0	26
23	Grader	85	0.4	1	4700	soft	0	32
18	Excavator	80.7	0.4	2	4700	soft	0	30
70	Truck, Water	76.5	0.4	3	4700	soft	0	28
	Combined Equipment							***37***

Table 8. Richard J. Donavan Correctional Facility Phase 2 Construction Noise Analysis

Equipment		Typical Level @ 50', dBA[1]	Usage Factor[1,2]	Number of Units	Distance to Receiver, ft.	Hard or Soft Site?	Barrier Attenuation, dB	Leq(h), dBA
Item No.	Description							
13	Dozer	81.7	0.4	3	4700	soft	0	33
72	Truck, Haul	76.5	0.4	4	4700	soft	0	29
29	Loader (Front End Loader)	79.1	0.4	1	4700	soft	0	26
23	Grader	85	0.4	1	4700	soft	0	32
18	Excavator	80.7	0.4	2	4700	soft	0	30
71	Grizzly Screen	87	0.5	1	4700	soft	0	35
70	Truck, Water	76.5	0.4	3	4700	soft	0	28
	Combined Equipment							***40***

1. Obtained or estimated from:

"Transit Noise and Vibration Impact Assessment", FTA, (FTA-VA-90-1003-06), May 2006; and/or

FHWA Roadway Construction Noise Model (RCNM), Version 1.0, February 2, 2006; and/or

"Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances;" BBN/EPA, December 31, 1971

2. Usage Factor = percentage of time equipment is operating in noisiest mode while in use