



WILSON, IHRIG & ASSOCIATES, INC.
ACOUSTICAL AND VIBRATION CONSULTANTS

5776 BROADWAY
OAKLAND, CA
U.S.A. 94618-1531

Tel: (510) 658-6719
Fax: (510) 652-4441

E-mail: info@wiai.com
Web: www.wiai.com

HOLLISTER HILLS SVRA
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AMBIENT NOISE MONITORING¹

2008/2009

CHAPTER 10

Month of March 2009

Session 19 and 20

6 April 2009

¹*Performed by: Wilson, Ihrig and Associates, Inc.*

The current noise monitoring is being conducted to document ambient noise levels and specifically any noise associated with the newly opened trails on the Renz Ranch Property and the Hudner Ranch Property when that is open to the public. The noise monitoring follows the same methodology used in previous years of noise monitoring for Hollister Hills SVRA subsequent to the EIR for the new property acquisitions.

The locations monitored in March 2009, which are covered by this chapter and the dates of monitoring are as follows:

- Session 19 - Locations 1, 4 and 5 - 3/14/09
- Session 20 - Locations 2 and 8 – 3/28/09

The noise metrics logged on an hourly basis were the L_{50} , L_{25} , L_8 , L_2 , L_{max} and L_{eq} at each location monitored. The hourly noise data have been tabulated for each session. Where an hourly noise metric equals or exceeds the Park's noise criteria, the source of the noise has been identified.

The noise data for Session 19 and 20 are contained in Tables 1 - 5. Where the monitored ambient noise levels exceed the defined noise standards, the source of the noise has been identified. Single event noises that exceed the L_{max} standard of 60 dBA are indicated in Table 6 which also includes the source of noise and the time that the event occurred.

The meteorological data are contained in Tables 7 - 11 for the sessions of noise monitored this month. During Session 19, noise generated by wind at average speeds of up to 9 mph contributed to an exceedence of the L_{50} criteria at Location 5 during the last two hours of the measurement. Meteorological conditions did not affect noise levels measured at any of the locations during Session 20.

As can be seen in Table 6 there were single event exceedences of 60 dBA due to small plane and helicopter flyovers at Locations 4 and 5 during Session 19. During Session 20 there were exceedences due to small plane flyovers at both location 2 and 8. There were also numerous exceedences caused by dirt bike activity on the Grand Prix track at location 8.

Of the locations monitored to date, Location 8 clearly exhibits noise levels attributable to Park OHV activity, which registered on the strip chart (i.e., they were discernible on the strip chart from the existing ambient). Location 8 is close to the Park's GP track. When a race or practice is in progress, the noise levels monitored at that location are dominated by the dirt bike activity as was observed during Session 1, 15, and 20.

Of the noise levels monitored in January, none of the exceedences were associated with OHV activity on the Renz Ranch Property trails and were clearly attributable to other sources.

Table 1- Ambient Noise Monitoring Data

Session No. 19
Location No. 1
Date 3/14/09
Start Time 1055
Comments

| Hour | L50 | L25 | L8 | L2 | Leq | Lmax |
|------|-----|-----|----|----|-----|------|
| 1 | 28 | 32 | 36 | 41 | 33 | 48 |
| 2 | 34 | 37 | 41 | 47 | 39 | 60 |
| 3 | 34 | 37 | 41 | 45 | 38 | 56 |
| 4 | 36 | 39 | 42 | 45 | 38 | 47 |

Table 2- Ambient Noise Monitoring Data

Session No. 19
Location No. 4
Date 3/14/09
Start Time 1047
Comments

| Hour | L50 | L25 | L8 | L2 | Leq | Lmax |
|------|-----|-----|----|-----|-----|------|
| 1 | 34 | 37 | 40 | 43 | 37 | 60 |
| 2 | 36 | 39 | 44 | 58* | 54 | 83* |
| 3 | 36 | 39 | 44 | 52 | 47 | 70** |
| 4 | 36 | 39 | 44 | 48 | 42 | 71** |

* Level due to Helicopter

** Level due to small plane flyover

Table 3- Ambient Noise Monitoring Data

Session No. 19
Location No. 5
Date 3/14/09
Start Time 1035
Comments

| Hour | L50 | L25 | L8 | L2 | Leq | Lmax |
|------|-------|-----|----|----|-----|------|
| 1 | 33 | 36 | 40 | 43 | 36 | 47 |
| 2 | 40 | 43 | 47 | 54 | 44 | 61* |
| 3 | 41*** | 43 | 47 | 53 | 50 | 76** |
| 4 | 41*** | 44 | 47 | 50 | 43 | 59 |

* Level due to helicopter
** Level due to small plane
*** Level due to wind

Table 4- Ambient Noise Monitoring Data

Session No. 20
Location No. 2
Date 3/28/09
Start Time 1000
Comments

| Hour | L50 | L25 | L8 | L2 | Leq | Lmax |
|------|-----|-----|----|----|-----|------|
| 1 | 31 | 35 | 40 | 45 | 36 | 54 |
| 2 | 30 | 33 | 37 | 41 | 36 | 57 |
| 3 | 31 | 36 | 41 | 50 | 41 | 62* |
| 4 | 31 | 36 | 43 | 51 | 42 | 64* |

* Level due to small plane overhead

Table 5- Ambient Noise Monitoring Data

Session No. 20
Location No. 8
Date 3/28/09
Start Time 1020
Comments

| Hour | L50 | L25 | L8 | L2 | Leq | Lmax |
|------|-----|-----|-----|-----|-----|------|
| 1 | 52* | 56* | 59* | 62* | 55 | 69* |
| 2 | 54* | 56* | 58* | 60* | 55 | 65* |
| 3 | 42* | 45 | 49 | 53 | 45 | 61* |
| 4 | 41* | 45 | 51* | 57* | 48 | 67** |

* Levels due to dirt bikes on Grand Prix Track
** Level due to small plane

Table 6 Single Event Noise Levels Exceeding 60 dBA

| Session | Date | Location | Time | L _{max} (dBA) | Source |
|---------|----------|----------|----------------------|------------------------|--|
| 1 | 5/24/08 | 7 | 1300 | 62 | High flying jet |
| | | | 1326 | 62 | Small Plane |
| | | 8 | 1 st hour | 67* | Dirt bikes with 8 events over 60dBA |
| | | | 2 nd hour | 67* | Dirt bikes with 7 events over 60dBA |
| | | | 3 rd hour | 66* | Dirt bikes with many events (20 - 30/hr) over 60 dBA |
| | | | 4 th hour | 68* | Dirt bikes with many events (20 - 30/hr) over 60 dBA |
| 3 | 6/21/08 | 3 | 1045 | 62 | Small airplane |
| | | | 1338 | 65 | Wind |
| | | 5 | 1256 | 68 | Wind |
| 4 | 7/5/08 | 4 | 1201 | 64 | Small airplane |
| | | | 1249 | 61 | Small airplane |
| 5 | 7/19/08 | 2 | 12:42 | 64 | Small airplane |
| | | | 13:14 | 61 | Small airplane |
| 7 | 8/16/08 | 3 | 1440 | 73 | Helicopter |
| | | 4 | 1404 | 61 | Small airplane |
| | | | 1440 | 62 | Helicopter |
| 9 | 9/13/08 | 3 | 1241 | 73 | Small plane overhead |
| 10 | 9/28/08 | 2 | 1142 | 65 | Helicopter |
| 11 | 10/11/08 | 6 | 1024 | 71 | Ambulance |
| | | | 1107 | 67 | Helicopter |
| | | | 1340 | 62 | Small Plane |

| Session | Date | Location | Time | L _{max} (dBA) | Source |
|---------|----------|----------|----------------------|------------------------|--|
| 11 | 10/11/08 | 8 | 1216 | 64 | Dirt Bike at GP track |
| | | | 1235 | 64 | Dirt Bike at GP track |
| | | | 1347 | 63 | Dirt Bike at GP track |
| 12 | 10/26/08 | 4 | 1153 | 61 | Plane |
| 13 | 11/8/08 | 5 | 1202 | 62 | Plane |
| | | | 1230 | 66 | Helicopter |
| 14 | 11/29/08 | 6 | 957 | 63 | Plane |
| | | | 1052 | 62 | Helicopter |
| | | | 1200 | 61 | Plane |
| 15 | 12/7/08 | 7 | 1236 | 69 | Plane |
| | | 8 | 1 st hour | 73* | Dirt bikes with many events (20 - 30/hr) over 60 dBA |
| | | | 2 nd hour | 72* | Dirt bikes with many events (20 - 30/hr) over 60 dBA |
| | | | 3 rd hour | 65* | Dirt bikes with 14 events over 60 dBA |
| | | | 4 th hour | 73* | Dirt bikes with many events (20 - 30/hr) over 60 dBA |
| 16 | 12/27/08 | 2 | 1102 | 68 | Local resident on 4-wheel ATV |
| | | | 1212 | 62 | Plane |
| | | 5 | 1211 | 64 | Plane |
| 18 | 1/31/09 | 3 | 1335 | 70 | Helicopter |
| | | 6 | 1325 | 65 | Plane |
| 19 | 3/14/09 | 4 | 1215 | 83 | Helicopter |
| | | | 1216 | 66 | Helicopter |
| | | | 1230 | 63 | Helicopter |

| Session | Date | Location | Time | L _{max} (dBA) | Source |
|---------|---------|----------|----------------------|------------------------|---|
| 19 | 3/14/09 | 4 | 1303 | 70 | Small Plane |
| | | | 1359 | 71 | Small Plane |
| | | 5 | 1216 | 61 | Helicopter |
| | | | 1303 | 76 | Small Plane |
| 20 | 3/28/09 | 2 | 1238 | 62 | Small Plane |
| | | | 1353 | 64 | Small Plane |
| | | 8 | 1 st hour | 69* | Dirt bikes with many events (20 - 30/hr) over 60 dBA |
| | | | 2 nd hour | 65* | Dirt bikes with many events (20 - 30/hr) over 60 dBA |
| | | | 1256 | 61 | Dirt Bike on GP track |
| | | | 1350 | 67 | Small Plane |
| | | | 1354 | 67 | Small Plane |

Note 1: Session 1, 15, and 20 at Location 8 produced many single events from dirt bikes exceeding 60 dBA during races at the GP Track.

Note 2: Where a race results in many single event noise levels over 60 dBA, the rate at which they occurred is given instead and just the highest L_{max} (*) for the session is indicated.

Table 7 – Meteorological Data

Session: 19

Day: Saturday

Date: 3/14/09

Monitoring Location No. 1

| Time | Air Temp. (°F) | Humidity (%) | Cloud Cover | Precipitation | Wind Direction | Wind Speed* (mph) |
|------|----------------|--------------|-------------|---------------|----------------|-------------------|
| 1100 | 47 | 66 | Clear | None | NW | 2 / 2 |
| 1130 | 49 | 70 | Clear | None | NW | 2 / 3 |
| 2100 | 51 | 63 | Clear | None | NW | 5 / 6 |
| 1230 | 51 | 61 | Clear | None | NW | 6 / 11 |
| 1300 | 52 | 57 | Clear | None | NW | 5 / 14 |
| 1330 | 53 | 58 | Clear | None | NW | 5 / 6 |
| 1400 | 55 | 53 | Clear | None | NW | 5 / 8 |
| 1430 | 56 | 45 | Clear | None | NW | 6 / 11 |
| 1500 | 53 | 51 | Clear | None | NW | 6 / 13 |

* Wind speed - (average/maximum)

Table 8 – Meteorological Data

Session: 19

Day: Saturday

Date: 3/14/09

Monitoring Location No. 4

| Time | Air Temp. (°F) | Humidity (%) | Cloud Cover | Precipitation | Wind Direction | Wind Speed* (mph) |
|------|----------------|--------------|-------------|---------------|----------------|-------------------|
| 1030 | 44 | 62 | Clear | None | N | 2 / 5 |
| 1100 | 55 | 62 | Clear | None | N | 1 / 8 |
| 1130 | 53 | 59 | Clear | None | NW | 1 / 2 |
| 1200 | 51 | 56 | Clear | None | W | 8 / 10 |
| 1230 | 51 | 58 | Clear | None | W | 6 / 9 |
| 1300 | 55 | 58 | Clear | None | W | 3 / 6 |
| 1330 | 53 | 56 | Clear | None | W | 2 / 8 |
| 1400 | 55 | 50 | Clear | None | W | 4 / 10 |
| 1430 | 55 | 52 | Clear | None | W | 6 / 10 |

* Wind speed - (average/maximum)

Table 9 – Meteorological Data

Session: 19

Day: Saturday

Date:3/14/09

Monitoring Location No. 5

| Time | Air Temp. (°F) | Humidity (%) | Cloud Cover | Precipitation | Wind Direction | Wind Speed* (mph) |
|------|-------------------|-----------------|----------------|---------------|-------------------|----------------------|
| 1100 | 50 | 73 | Clear | None | N | 3 / 5 |
| 1130 | 52 | 74 | Clear | None | N | 3 / 4 |
| 1200 | 50 | 74 | Clear | None | W | 7 / 12 |
| 1230 | 51 | 73 | Clear | None | NW | 9 / 15 |
| 1300 | 54 | 73 | Clear | None | NW | 6 / 9 |
| 1330 | 54 | 70 | Clear | None | NW | 7 / 13 |
| 1400 | 54 | 70 | Clear | None | NW | 8 / 13 |
| 1430 | 54 | 66 | Clear | None | W | 9 / 13 |
| 1500 | 55 | 68 | Clear | None | W | 10 / 14 |

* Wind speed - (average/maximum)

Table 10 – Meteorological Data

Session: 20

Day: Saturday

Date: 3/28/09

Monitoring Location No. 2

| Time | Air Temp. (°F) | Humidity (%) | Cloud Cover | Precipitation | Wind Direction | Wind Speed* (mph) |
|------|----------------|--------------|-------------|---------------|----------------|-------------------|
| 1000 | 64 | 68 | Clear | None | NE | 2 / 3 |
| 1030 | 65 | 70 | Clear | None | NE | 1 / 3 |
| 1100 | 68 | 72 | Clear | None | NE | 1 / 1 |
| 1130 | 70 | 65 | Clear | None | NE | 1 / 1 |
| 1200 | 72 | 64 | Clear | None | NE | 2 / 4 |
| 1230 | 72 | 65 | Clear | None | NE | 1 / 2 |
| 1300 | 75 | 57 | Clear | None | NE | 2 / 4 |
| 1330 | 78 | 41 | Clear | None | NE | 1 / 3 |
| 1400 | 78 | 49 | Clear | None | NE | 2 / 4 |

* Wind speed - (average/maximum)

Table 11 – Meteorological Data

Session: 20

Day: Saturday

Date: 3/28/09

Monitoring Location No. 8

| Time | Air Temp. (°F) | Humidity (%) | Cloud Cover | Precipitation | Wind Direction | Wind Speed* (mph) |
|------|----------------|--------------|-------------|---------------|----------------|-------------------|
| 1030 | 75 | 42 | Clear | None | NNE | 1 / 2 |
| 1100 | 71 | 52 | Clear | None | NNE | 1 / 2 |
| 1130 | 73 | 50 | Clear | None | NNE | 1 / 4 |
| 1200 | 73 | 54 | Clear | None | NNE | 1 / 4 |
| 1230 | 69 | 53 | Clear | None | NNE | 2 / 3 |
| 1300 | 74 | 53 | Clear | None | NNE | 2 / 3 |
| 1330 | 72 | 54 | Clear | None | NNE | 2 / 3 |
| 1400 | 73 | 50 | Clear | None | NNE | 3 / 4 |
| 1430 | 73 | 48 | Clear | None | NNE | 3 / 4 |

* Wind speed - (average/maximum)