

## Appendix G. Wilderness Character Monitoring

### Sound Monitoring

<b>Table 15.1 Ambient Sound Pressure Levels (dBA's) Without activity at all receptor sites.</b>				
Attribute	4 Miles Burn (Rx Burning)	Isabella Campsite (ATV Travel)	Isabella Island (ATV Travel)	AVG of All Receptor Sites (Rx Burn & ATV)
Avg dBA Range	16.5 - 34.7	27.9 - 30.4	20.8 - 72.5	25.3 - 32.8
Avg dBA	28.17	29.2	42.3	30
Maximum dBA	57.4 (Birds)	30.4	72.5 (Aircraft)	40.3

<b>Table. 15.2. Background Sound Pressure Levels (dBA's) With activity. All Receptor Sites.</b>				
Attribute	4 Miles Burn (Rx Burning)	Isabella Campsite (ATV Travel)	Isabella Island (ATV Travel)	AVG of All Receptor Sites (Rx Burn & ATV)
Avg dBA Range	20.8 - 72.5	28.9 - 39.2	31.9 - 36.4	27 - 49.3
Avg dBA	42.3	30.25	33.25	35.2
Maximum dBA	72.5 (Aircraft)	39.2	36.4	49

<b>Table. 15.3. Background Sound Pressure Levels (dBA's) Combined ambient with activity at all receptor sites.</b>				
Attribute	4 Miles Burn (Rx Burning)	Isabella Campsite (ATV Travel)	Isabella Island (ATV Travel)	AVG of All Receptor Sites (Rx Burn & ATV)
Avg dBA Range	16.5 - 72.5	27.9 - 39.2	31.5 - 36.4	25.3 - 49.3
Avg dBA	35.2	29.7	32.9	32.6
Maximum dBA	65	34.8	34.9	45
Wind Intensity Level	1.2	1.1	1.1	1.13

<b>Table. 15.4. Duration of Sound Level Ranges. (dBA Range as a Percent of Listening Period-52 Hours). With and Without Activity and Combined ambient with activity. 4 Mile Rx.</b>	
<b>Ambient Without Fire Operations Activities</b>	
< 20 dBA*	14.7%
20 -29 dBA	76.5%
30 -39 dBA	8.8%
40-49 dBA	0%
<b>With Fire Operations Activities</b>	
< 20 dBA*	0%
20 -29 dBA	11%
30 -39 dBA	21%
40-49 dBA	28%
50-59 dBA	15%
60-69 dBA	18%
>70 dBA	7%
<b>Combined With Fire Operations Activities and Ambient (Total Time)</b>	
< 20 dBA	13%
20-29 dBA	68%
30-39 dBA	13%
40-49 dBA	8%
50-59 dBA	4%
60-69 dBA	5%
>70 dBA	2%

<b>Table. 15.5. Ambient Sound Pressure Levels (dBA's) by Wilderness Management Area</b>				
<b>Receptor Site</b>	<b>Avg dBA</b>	<b>Max. dBA</b>	<b>Avg. and Max. dBA Compared to MPCA dBA Rating</b>	<b>Wilderness Mgt Area &amp; Expectation</b>
4 Mile	35.2	Natural-58. Crickets. Human-73. Fire aircraft.	Avg. Between Secluded Woods & Library. Max. Between Conversational Speech & Truck Traffic,	Semi-Primitive Motorized: Opportunities for experiencing solitude and isolation are low. Motorized watercrafts are permitted and will be noticeable.
Isabella CS	29.7	Natural-30.4. Gulls. Human-39.2. Motor.	Avg. Secluded Woods. Max. Between Secluded Woods & Library.	Semi-Primitive Non-motorized Opportunities for experiencing isolation and solitude are moderate to low. The frequency of encountering others in the area is moderate.
Isabella Island	32.9	Natural-33. Waves & birds. Human-36 Motor.		
Oriniack	22	Natural-67. Squirrel. Human-61. Truck.	Avg. Less than Secluded Woods. Max. Conversational Speech.	Primitive. This area provides an excellent opportunity for isolation and solitude, relatively free from the sights and sounds of humans.
Rock Island	22	Natural-58. Splashing fish. Human-71. High altitude jet.	Avg. Less than Secluded Woods. Max. Conversational Speech	Pristine. This area provides an outstanding opportunity for isolation and solitude, relatively free from the evidence of contemporary human activities.

**Table 15.6. Ambient Sound Pressure Level Duration by Wilderness Management Area**

Receptor Site	Wilderness MA	Sounds Documented	dBA Range	Percent of Listening Period
4 Mile	Semi-primitive Motorized	Natural and recently approved, traditional, accepted or long standing human generated sounds. Includes Rx burn operation activities within BWCAW and drive by ATV travel adjacent to wilderness.	< 20	13
			20-29	68
			30-39	13
			40-49	8
			50-59	4
			60-69	5
			>70	2
Oriniack	Primitive	Natural and recently approved, traditional, accepted or long standing human generated sounds including motorboats on nearby (1 mile) Trout Lake and aircraft.	< 20	51.5
			20-29	22.1
			30-39	21.1
			40-49	5.3
Rock Island	Pristine	Natural and recently approved, traditional, accepted or long standing human generated sounds including aircraft.	< 20	29
			20-29	49
			30-39	18
			40-49	4

Authorized Motorized Use

**Table 15.7. Emergency and Administrative Motorized Use Trends**

Year	2006	2007	2008	2009
Motor Use Incidents Reported				
Emergency (wild fire, search and rescue, law enforcement)	Total: 76 Fire-66 SAR-9 LE-1	Total: 34 Fire-19 SAR-13 LE-2	Total: 29 Fire-6 SAR-14 LE-10	Total: 13 Fire-3 SAR-10
Administrative (DNR fish stocking, DNR wildlife surveys, other)	18: all DNR	26: all DNR	21: all DNR	17: DNR-14 Rx fire-3
*SAR – search and rescue, LE – law enforcement, DNR – Department of Natural Resources				

Motorized Intrusions

**Table 15.8 Motorized Recreation Intrusions into the BWCAW Compliance and Effects From 2005 Through 2009**

Visits	2005	2006	2008	2009	4 Year Total
# of Roads /Trails Visited	23	81	14	19	117
BW User Created Trail	1	9	2	0	12
% Roads/Trails Visited	4%	11%	14%	0	10%