



Appendices

APPENDIX A: LITERATURE REVIEW

SUMMARY OF RESEARCH ON MOTORIZED VEHICLE USE

While access to public lands improves the experience of ORV users, it can damage air and water quality as well as soils; adversely affect vegetation, wildlife, and habitat; impact cultural resources; detract from other visitors' enjoyment of public lands; and create law enforcement issues. In general, air and water quality are negatively affected by exhaust fumes, oil, dust, and siltation that result from ORV use (Taylor n.d.; Proescholdt 2007; Ouren et al. 2007). ORVs churn up and damage delicate soils, and continued use of certain areas can result in soil compaction that prohibits the establishment of annual plants and can foster the invasion of nonnative species into fragile ecosystems (Proescholdt 2007; Ouren et al. 2007; Webb 1982). Soil damage and compaction can also lead to increased erosion of ORV traffic areas expressed by deep gullies and high stream siltation (Iverson 1980). An analysis of ORV impacts in national park units (Long et al. 1999) found this type of recreation causes damage to topsoil as well as vegetation and has in some places resulted in the mortality of endangered species. Park rangers have also reported incidents where ORV use has destroyed or disturbed cultural resources that parks are bound by law to protect (Long et al. 1999). Additionally, loud engines in quiet environments disturb wildlife and affect visitor enjoyment for those that use parks as places of peace and solace or for activities such as hunting and fishing (Proescholdt 2007). While Long et al. (1999) found that there is widespread legal use of ORVs in 23 park units, they found illegal use in 40 park units.

This literature review has been prepared to support the development of an ORV management plan/EIS at Lake Meredith National Recreation Area. The following sections summarize available information related to the potential effects of ORV use on natural and cultural resources, such as air and water quality, soils, vegetation, wildlife, and archeological resources, found in national park units. It also examines information on the effects of ORV use on socioeconomics, esthetics/sound, safety, and management issues. Because the Recreation Area is located within a semiarid region, the literature review focused on mountainous, semiarid, and desert environments, where appropriate.

AIR QUALITY

While emissions from on-road vehicles decreased 56 percent from 1986 to 2006 as a result of emissions reduction programs, there was a 42 percent increase in ORV emissions over the same period. Annual estimates show that ATVs emit more than 381,000 tons of hydrocarbons, 1,860,000 tons of carbon monoxide, and 11,000 tons of nitrogen oxide each year across the country (Wildlands CPR 2006). A recent report from the Center for Biological Diversity (Kassar and Spitler 2008) cites the California Air Resources Board finding that off-road motorcycles and ORVs produce 118 times as much smog-forming pollutants as do modern automobiles on a per-mile basis. One study prepared for the Bureau of Land Management (BLM) in California showed that the impacts of fugitive dust (particulate matter) created during the operation of ORVs varied as a function of activity levels (WESTEC 1979). In some instances, fugitive dust levels that were 10 times the daily standard and 100 times the hourly standard were found to occur in localized areas. As a result, the study recommended adequate separation of ORV use from non-ORV related receptors to properly reduce the effects of fugitive dust emissions (WESTEC 1979). If left uncontrolled, it is estimated that ORVs will contribute 33 percent of hydrocarbon emissions, 9 percent of carbon monoxide, 9 percent of nitrogen oxide, and 2 percent of particulate emissions nationally by 2020 (Wildlands CPR 2006).

Overall, from the perspective of human health, studies have shown that ORVs emit carbon monoxide, nitrogen oxide, benzene, toluene, ethylbenzene and xylenes. Carbon monoxide exposure has been shown to lead to visual impairment, reduced work capacity and mental dexterity, poor learning ability, nausea, headaches, dizziness, and death. Nitrogen oxides can cause shortness of breath, chest pain and increased susceptibility to respiratory infections. Benzene is an identified carcinogen. Toluene, ethylbenzene, and xylenes can cause dizziness, headaches and loss of consciousness (Wildlands CPR 2006). Particulate

matter (in the form of fugitive dust from unpaved roadways) is another air pollutant which can lead to decreased lung function, respiratory disease, and even death (Wildlands CPR 2006).

WATER QUALITY

A total of six articles were reviewed regarding water quality impacts associated with ORV use. Five of the articles involved specific scientific studies, and one article (Wildlands CPR 1999) presented legal strategies for activists to address inappropriate roads and ORVs through tools provided in four regulatory areas of the *Clean Water Act*: state water quality plans, total maximum daily loads, discharge permits, and Section 404.

Of these articles, two documented the impacts on water quality directly related to the use of motorized vehicles in or near aquatic environments. The Texas Chapter of the American Fisheries Society (TCAFS) cites the erosion, siltation, and bank destabilization that results from ORV use and increases the potential for other water quality impacts. The damage to stream bottoms and increased siltation can change stream temperatures, resulting in increased extremes and temperature variability that can be detrimental to fish populations (TCAFS 2002). In the July 2000 article in the U.S. Forest Service (USFS) Stream Systems Technology Center's "Stream Notes" magazine, Furniss et al. (2000) determined that forest roads and associated drainage features caused an increase in channelized runoff that often reached local waterways prior to infiltration, which demonstrated a hydrologic connection between roads and streams. This report was based on several studies in the Pacific Northwest that documented increases in runoff timing, peak flows, and sedimentation in streams caused by concentrated outflows from ditches and culverts associated with forest roads. The authors determined that this hydrologic connection between roads and streams indicated the potential for impacts on water quality, aquatic habitats, and hydrology (Furniss et al. 2000).

SOILS

Several studies show that ORV use in desert climates can have lasting, deleterious effects on soil stability and fertility. In one study, researchers drove a four-wheel-drive vehicle back and forth twice across test plots in the southern Colorado Plateau, Sonoran Desert, Mojave Desert, Chihuahuan Desert, the northern Colorado Plateau, and the Great Basin Desert. They found statistically significant reduction in soil nitrogenase activity in nearly half of the test sites (Belnap 2002). Nitrogenase activity results from an enzyme that catalyzes nitrogen fixation, which contributes to soil fertility and productivity.

In desert climates, biological soil crusts are often primary contributors to soil fertility, stability, and primary productivity due to the nitrogenase activity of soil lichens, cyanobacteria, and moss (Belnap 1996, 2002). Soil composition is an important indicator of the presence of different types of biological organisms—sandy and clay soils being less hospitable to these organisms than those higher in silt content (Belnap 2002). The presence of these organisms before disturbance does influence the degree to which soils are injured by ORV disturbance and should be considered when estimating the damage caused by ORVs.

Similarly, desert type also appears to determine the impact that ORV disturbance will have on the nitrogenase activity of those organisms. For instance, Belnap (2002) found that biological soils in hot deserts (e.g., Chihuahuan, Sonora, and parts of the Mojave) recovered more quickly from disturbance than those in cooler deserts (e.g., Colorado Plateau, northern Great Basin) due in part to the type of soil lichens found in those soils as a result of climate. Moreover, the presence of more soil lichens before the disturbance significantly reduced the impact on nitrogenase activity after the disturbance. Although desert type can affect the degree of impact, any disturbance by ORVs damages fragile biological soil crusts, and recovery can take decades or even centuries depending on the soil type (Belnap 1993, 2003; Webb and Wilshire 1980). In their study on a ghost town in Nevada, Webb and Wilshire (1980) found that a half

century after the site was abandoned, soils had still not recovered. Moreover, the type of vegetation found at the research site differed significantly from surrounding undisturbed areas, pointing to the impacts that soil disturbance had on other biological organisms.

In addition to reduction in primary productivity though decreasing nitrogenase activity, soil compaction is another byproduct of ORV use that can have negative impacts on desert ecology. Compacted soils can impede the establishment of plants by inhibiting root expansion. Results from a study by Adams et al. (1982) in the Mojave Desert showed that soil compaction as a result of ORV use is more pronounced on wet soils than dry soils. Under wet conditions, just three ORV passes over a study area resulted in statistically significant soil strengthening to a depth of 25 centimeters. With dry soils, similar results were not achieved until a Ford Bronco had completed 20 passes and only at a depth of 15 centimeters. These results indicate that controlling ORV activity under moist and wet conditions could reduce soil compaction and thus ecosystem injury.

Another study in the Mojave Desert (Iverson 1980) showed that soil compaction can lead to soil erosion, largely because of decreased infiltration rates of rainwater. Tuttle and Griggs (1987) documented erosion of ORV-compacted soils in state vehicular recreation areas located in arid regions of California, including gullies and increased stream sediments at various hillclimbs. Webb (1982) found that soil compaction in Mojave Desert soils resulted from a minimal number of motorcycle passes and that after as few as ten, all annual vegetation was destroyed. Loamy sand soils appeared particularly vulnerable, and Webb recommended ORV traffic be prohibited from areas with those soil types. At a minimum, partial recovery of the tests sites from his study became apparent only after one year, and it was attributed to invasive species.

VEGETATION AND INVASIVE SPECIES

There are numerous studies describing the impacts of ORVs on vegetative communities, including direct damage to vegetation by vehicle use and the spread of invasive species by vehicular seed dispersal. Three studies reviewed involved direct examination of vehicles to determine if they were potential distributors of nonnative plant seeds.

Osborn et al. (2002) discuss a study that investigated the potential for seed transport into Kakadu National Park in Australia by means of tourist vehicles. The study concluded that vehicles were partially responsible for weed seed dispersal, but the low density of seeds found on the vehicles did not warrant the park taking preventative action. Another study (Rooney 2005) compared soil samples taken from the undercarriage of ORVs to field surveys for seven invasive species in forested areas of Wisconsin. No evidence of actual invasive plant dispersal was noted; however, because invasive plants have seed traits that predispose them to dispersal, the study found that ORVs may occasionally contribute to long distance dispersal events. This is further supported by a study conducted by the Montana Weed Control Association (Trunkle and Fay 1991) which involved driving a vehicle 40 feet into a vegetated plot and then to various distances from the plot. Afterwards, plant material, including spotted knapweed (*Centaurea stoebe*) seeds, was collected from the undercarriage. The results indicate that spotted knapweed seed is readily disseminated by motor vehicles for long distances.

Two studies reviewed addressed the effects of roads on the spread of invasive species. Gelbard and Belnap (2003) documented that roads and associated environmental disturbances contributed to the spread of invasive species in semiarid grasslands, shrublands, and woodlands of southern Utah. This study also noted evidence of higher nonnative species richness and invasive species cover near paved roads than near four-wheel-drive vehicle tracks. A study from southern Nevada (Bolling and Walker 2000) explained how the initial form of disturbance in creating roads could be a factor in determining the forms of plant succession that occur during revegetation of disturbed areas. Soils and vegetation types in southern

Nevada differed between roads and nearby non-road areas and between roads created by vehicular traffic (track) and bulldozing (bladed). Track roads were more susceptible to soil compaction and had higher levels of organic matter and plant cover (Bolling and Walker 2000).

A study of nine ORV use areas in California deserts (Lathrop 1983) found that direct vehicle impacts constituted the primary means of vegetative destruction. The study showed that areas beyond the vehicle track width were also affected although the degree of impact varied with conditions and intensity of vehicle use. The study demonstrated that concentrated current or recent use in localized areas (such as heavy weekend use) created the greatest reduction in vegetative cover. Another study in the Mojave and Colorado deserts of California (Lovich and Bainbridge 1999) found that natural recovery rates (return to pre-disturbance levels of biomass, cover, density, community structure, and soil characteristics) for certain desert ecosystems from the negative impacts of ORVs and other uses could be as long as 3,000 years. Wilshire (1983) found that even a single pass of an ORV could destroy many types of annual and some perennial plants although hundreds of passes may be required to destroy tough, deep-rooted shrubs. Webb (1983) found that while most of the annual vegetation in a Mojave Desert study remained after one pass by a motorcycle, most had been destroyed after 10 passes. Wilshire, Shipley and Nakata (1978) documented the impacts of ORVs in western states, including trail widening, uprooting of vegetation, burying plants, severe erosion, runoff, and the consequences of each to vegetation. Another study (Nakata 1979) investigated the causes of damage from a particular storm event in Utah and found that several factors contributed to the development of a storm-induced mudflow, including erosion and channelization of runoff along ORV trails that combined with diverted canal water. Nakata concluded that major destabilized areas above the canal were stripped of vegetation by ORV use.

FISH AND WILDLIFE

Numerous studies have detailed the impacts on wildlife of ORV use on public lands. Impacts generally described in these studies include direct mortality, harassment, noise effects, and habitat destruction. For example, desert tortoises (*Gopherus agassizii*) and other amphibians and reptiles have been crushed to death or injured by this type of traffic in public lands (Bury and Luckenbach 2002). Other risks include injury during escape responses, and in severe cases, habitat avoidance and abandonment of young. Radle (2007) found that wildlife generally experience an increase in heart rate, as well as altered metabolism and hormone balance, when introduced to human-made noise. Noise from ORVs can obstruct the senses of animals that depend on hearing and vibration detection to survive (Berry 1980; Bury 1980). ORVs also impact wildlife by destroying or fragmenting habitat. Much of the existing research has dealt specifically with the effects of erosion and trampling of vegetation by visitors and the associated impacts on wildlife habitat values (Joslin and Youmans 1999; Monz et al. 2003). This has led some to conclude that the most effective strategies for avoiding habitat disturbance are outright road removal and the avoidance of new road construction in roadless or sparsely roaded areas (Trombulak and Frissell 2001; Walder n.d.).

Among bird species, adverse reactions to human recreational activities have included nest desertion, temporary nest abandonment, and changes in foraging habits (Joslin and Youmans 1999). Studies of wintering raptors in Colorado have found that perching distances and species richness were greater at nest locations away from trails, suggesting that trails may have an effect on habitat selection (Fletcher et al. 1999). As a result, spatial buffer zones (0.4 to 1.2 kilometers from nests) for ORV use in the Rocky Mountains are recommended during sensitive nesting phases (Joslin and Youmans 1999).

ORV-related impacts on amphibian and reptile species identified in Montana include direct mortality from vehicle collisions as well as indirect impacts on populations via the creation of migration barriers, habitat destruction, and increasing chemical contamination and sedimentation. The development of recreational facilities and water impoundments may result in the loss of key breeding, foraging, and wintering habitats, while ORV-related noise has resulted in decreased acoustical sensitivities in a number

of lizard species in the Sonoran Desert (Joslin and Youmans 1999). Species-specific studies have shown that certain species of reptiles in the Mojave Desert region of California vary in body mass depending on the level of ORV impacts, with reptiles in lower impact areas showing higher body mass (Nicolai and Lovich 2000; McGrann et al. 2006). These studies also noted that availability of primary food sources in high impact areas was lower than in low impact areas. Reptiles studied in Owyhee County, Idaho, exhibited reduced rates of movement following disturbance from ORVs. For example, reptiles have been found in higher densities further from trails at sites used less frequently by ORVs, while higher densities were observed closer to trails at more heavily used sites (Munger et al. 2003).

Studies of ORV impacts on mammalian species have shown that disturbance responses depend on the species, the extent of disturbance, and a multitude of other factors such as individual habituation. Related stressors include lowered resistance, inhibition of reproductive functions, behavioral disturbances, and greater energy demands due to flight responses, particularly from motorized recreationalists during winter months (Boyle and Samson 1985; Caslick and Caslick 1997; Wisdom et al. 2004).

Adverse effects on small mammals from ORV use have also been documented and include population reduction, energy expenditure, habitat modification (including changes in microclimate), forage/cover removal, and echolocation interference (Joslin and Youmans 1999). Further research on the effects of recreational disturbances on ungulates, such as deer (*Odocoileus* spp.) and elk (*Cervus canadensis*), has shown that even when disturbances do not induce an overt behavioral response, the increased heart rates can result in relatively high energy expenditures (Joslin and Youmans 1999). Black et al. (n.d.) also explain how disturbances contribute to increased energy expenditures for wildlife and describe various animals' means of thermal regulation (maintaining body temperature) during winter months.

These authors state that of the three learned responses that wildlife may show to recreationists (habituation, attraction, and avoidance), avoidance is particularly important in the Gunnison Basin of southwestern Colorado where animals have learned to flee from hunters. An example of this has been the propensity of bighorn sheep (*Ovis canadensis*) to abandon traditional ranges and alter social patterns as a response to these disturbances (Black et al. n.d.). It has been reported that any human activity on bighorn sheep winter range, especially within 100 feet of escape terrain, could affect their survivability (Caslick and Caslick 1997). By contrast, an earlier study by MacArthur et al. (1982) found that domestic sheep in Alberta, Canada that were regularly exposed to human activities had elevated heart rates when they were in the presence of humans accompanied by dogs. However, their reactions to road traffic were minimal, suggesting some degree of habituation.

One particular study demonstrated that ORV use in aquatic communities had a simplifying effect on aquatic biota. Some species were unable to adapt and disappeared from the modified environment (TCAFS 2002) primarily due to the impacts of vegetation loss and resulting water quality impacts.

ARCHEOLOGICAL RESOURCES

Whether intentionally or inadvertently, ORV use has the potential to affect archeological resources on public lands (BLM 2000; Lyneis et al. 1980; Schiffman 2005; Sowl and Poetter 2004; SUWA 2002). Direct impacts result from the damage or destruction that occurs when ORVs drive over and/or near archeological sites. The weight and torque of such vehicles easily damages fragile surface deposits. The Southern Utah Wilderness Alliance (2002) has cited cases in which the associated soil compaction, vegetation loss, and altered hydrology cause the compaction of surface and subsurface features (e.g., remains of houses, burials, hearths, storage pits, etc.) as well as breakage of artifacts. Site integrity, a necessary element for listing a cultural resource in the National Register of Historic Places, is also affected by the visible changes caused by vehicle tracks and erosion (Sowl and Poetter 2004). Lastly,

impacts occur when vibrations and soil erosion caused by ORVs undermine the stability of fragile prehistoric structures (SUWA 2002).

One study in the Izembek National Wildlife Refuge in Alaska noted that increased erosion from ORVs exposed artifacts, making them susceptible to collection (Sowl and Poetter 2004). Studies conducted in the California desert note that ORVs provide access to previously inaccessible, remote areas as ORV users explore new terrain (Lyneis et al. 1980). According to the BLM, this leads to an increase in visitation to lands previously used only by small numbers of hikers and increases the intentional and inadvertent damage of archeological resources through surface disturbances (BLM 2000), as described above. In Alaska, it has been shown that damage from such access increases dramatically when the areas are remote enough to preclude monitoring (Sowl and Poetter 2004).

ORVs have also enabled collectors and pothunters to reach these remote areas, facilitating greater archeological resource damage from intentional collection and vandalism (BLM 2000; Schiffman 2005; Lyneis et al. 1980; SUWA 2002). In addition, one study in the California desert notes that ORVs increase the ability of collectors to carry larger and heavier artifacts out of an area (Lyneis et al. 1980).

SOCIOECONOMICS

ORV-related economic impacts vary by state and region. A 2008 study commissioned by the Iowa State ORV Association to investigate statewide ORV use patterns and expenditures found that the most frequent type of ORV use consists of day trips within the vicinity of users' homes, but about 41 percent of ORV owners in Iowa make an average of 1.7 out-of-state trips annually for recreation purposes (Otto 2008). The study used the IMPLAN economic modeling tool to create a user profile and estimate ORV-related statewide income and employment. It found that Iowa ORV users, a group that includes 29,663 households, spend an estimated \$86.4 million per year on ORV equipment and activities, resulting in an estimated total of \$126 million in in-state transactions or sales, \$33.7 million in personal income, and 1,200 jobs. The study also found that Iowa ORV users generate an estimated total \$6.3 million in out-of-state transactions (Otto 2008).

Reed and Hass (1989) indicate that the profile of the ORV economy in Colorado is even more pronounced, with an estimated \$489 million (in 1989 dollars) spent by ORV users statewide for ORV-related equipment, activities, and services. In 1988, approximately 192,400 ORV users in Colorado accounted for an estimated 1.3 million ORV recreation trips. The 600 ORV users surveyed in the Reed and Hass study would be willing to pay, on average, \$19 (in 1988 dollars) for an annual ORV registration fee if the revenues were collected to enhance statewide ORV opportunities, such as trail construction, maintenance, and educational programs.

A more recent survey-based study of ORV recreational use on the Colorado economy (COHVC 2001) focused on user behavior and average per-trip expenditures and found estimated ORV-related expenditures for households to be between \$140 and \$159 million in 2000. The estimated value of new recreational vehicle sales in Colorado in 2000 was \$67.6 to \$74.4 million. There were also indirect contributions to the Colorado state economy (e.g., expenditures for maintenance, repairs, storage, and miscellaneous items). Total employment for ORV-related activities was between 3,196 and 3,515 jobs. The study found that 68 percent of Colorado ATV users would leave the state for such activities if no ORV activities were allowed in state.

Another study of economic impacts of ATVs in Minnesota (Schneider and Schoenecker 2006) found that direct ATV-related expenditures were \$641.9 million, with an estimated 5,693 jobs from ATV-related retail and manufacturing activity. Stynes (2000), who looked at ORV use in Michigan, mentions that these socioeconomic effects tend to take place in rural communities with fairly limited economic

development and which rely heavily upon retail and tourism. In his study of ORV spending and economic impact in Michigan, he found that ORV owners spent about \$40 million on trail-riding trips outside their region of residence in 1998, supporting about 600 jobs statewide.

A survey of registered Utah ORV users found that the number of registered users tripled in eight years (1998–2006) (Burr et al. 2008). Statewide, respondents are concerned with provision of information, trailhead facilities, maintenance of ORV areas, signage, and enforcement of rules and regulations. Availability of information is the most important among users and is found to be the biggest weakness. Respondents believe that more information should be provided regarding rules, hazards, and conditions via maps, brochures, newsletters, and websites. Concerning fees, Utah users were opposed to an additional statewide tax on the sale of all new ORVs and trailhead parking fees for all users. Respondents were least opposed to daily use fees for heavily used areas (Burr et al. 2008).

In a review of surveys conducted by several leading publications, King (1972) found that motorcycle riders were representative of the wider American society, with the average motorcyclist being in the mid-20s and 20 percent being employed in semi-skilled/skilled professions. King reported that many off-road, trail motorcyclists use forests and parks in other recreational ways, such as for fishing and hunting, and concluded that trail riding is a significant and valuable recreational activity that should be allowed within park units.

Freuh (2001) also found that hunting and fishing constitute the highest recreational interests among ORV users in Colorado. Schneider and Schoenecker (2006) used both survey and secondary data to construct a profile of ATV users. It showed that the 2005 registered ATV rider is a middle-aged, non-Hispanic white male with less than a college education, which is a finding consistent with ATV profiles of riders in Wisconsin, Colorado, and Utah.

ESTHETICS/SOUND

ORV use influences the character of the wild landscape and can result in conflicts between ORV users and other recreational users. McCool (1979) points out that visual impacts last longer in arid environments, where soil stability is inherently more tenuous. The compounding factors of ORV activities, wind erosion, and increased runoff from the resulting loss of vegetation can have major impacts on the esthetic character of such regions.

ESTHETICS

There is a paucity of data regarding ORV use and its impacts on soundscapes in NPS units, with the majority of available data related to air tours over public lands managed by the NPS. Gramann (1999) used many approaches to garner information about how visitor experiences in national parks are affected by mechanical versus natural sound. Overall, results showed that park users identify natural sounds as more enjoyable than mechanical sounds, but mechanical sounds do not always interfere with the user's experience. Visitor experiences and sensitivity to mechanical sound is dependent on visitor expectations, group size, front or backcountry experience, and activity type. For example, a visitor in a group of three or more visiting a park for the first time in the front country and taking pictures may not be as sensitive to mechanical sounds as a lone hiker in the backcountry. People are generally tolerant of certain noise disturbances if they perceive them as necessary (e.g., helicopters conducting fire suppression activities). In this sense, the study indicated that it is important that sounds are consistent with the visual setting within which they are heard.

Variable noise disturbances may be more readily tolerated depending on the perception of the setting by the observer. As a result, from a management perspective, some scenic overlooks and short front country

trails may not require as much protection as backcountry locales where preserving the experience of natural sound is paramount to overall visitor experience (Gramann 1999). It is useful to note that, along with regulatory frameworks, successful management of natural soundscapes must also include compliance assurance. A report from the Motorcycle Sound Working Group of the American Motorcycle Association (2005) points out that while strict U.S. Environmental Protection Agency standards regarding sound output are applied by the manufacturers of ORVs, users often modify vehicles with aftermarket parts that circumvent such regulations.

SAFETY

The 2005 *Annual Report of ATV-Related Deaths and Injuries* published by the U.S. Consumer Product Safety Commission (CPSC) reveals that overall, the number of deaths and injuries reported since 1982 has increased. Nationwide, as of the end of 2005, a total of 7,188 deaths had been reported since reporting began in 1982 (Ingle and Streeter 2007). An estimated 137,000 ATV-related emergency room treated injuries have occurred in the same time period. Thirty percent of the total ATV-related deaths were children under 16 years old, and 13 percent were younger than 12. Between 1992 and 2005, there was a 24 percent increase in injuries in the 45–54 age group (Ingle and Streeter 2007).

CPSC first began analyzing data on ATVs in the early 1980s to provide statistics on frequency of deaths and injuries associated with three-wheel ATVs. These data led to a consent decree with CPSC and five ATV distributors that halted the production of three-wheel ATVs, offered training to all new ATV owners, and recommended adult-size ATVs for those 16 and older. The decree expired after 10 years in 1998, but the five original signers, along with two others, agreed to continue with most of the elements under the consent decree of 1988 through voluntary action plans (Ingle and Streeter 2007).

Consumer advocacy groups and petitioners have argued that current industry standards regarding ATV use by children under the age of 16 are not preventing deaths and injuries. In August of 2002, a petition to ban ATV use by children under 16 years old and to provide monetary refunds covering the cost of vehicle purchase for consumers was brought by the Consumer Federation of America and eight other organizations to the CPSC. The organizations included consumer and medical non-profit organizations and environmental, safety, and public interest research groups. The petition stated that ATVs pose unreasonable risk of injury and death to children and referenced the 1988 consent decree described above, pointing out that the decree did not include incentives to encourage owners of three-wheel ATVs to return them to dealers. The petitioners stated that voluntary action plans by manufacturers are inadequate in preventing deaths and injuries to children, and they cited the CPSC conclusion that ATVs are “inherently difficult to operate for adults and [are] beyond the development capability of children to control” (Weintraub 2002). The groups requested more stringent controls for ATV users over the age of 16, including licensing and training.

MANAGEMENT ISSUES

Nationwide, 15 national park system units allow ORV use by the general public. Within these areas, various user groups, as well as ORV manufacturers, contend that NPS limits on ORV use unfairly restrict access, establish a precedent for other federal land managers to impose or extend restrictions, and may be economically harmful to gateway communities and industries serving users (Calvert et al. 2007). Opponents of motorized recreation in national park system units cite ORV use as damaging to the environment and cultural artifacts. Conflicts also arise on USFS lands, where uses such as timber harvesting and ORV recreation may affect birdwatching and sightseeing and can degrade water quality in certain settings (Calvert et al. 2007).

Studies show that ORV use has been increasing throughout the United States. Cordell et al. (2005) report that, according to the Motorcycle Industry Council, ORV annual sales more than tripled between 1995 and 2003, and ATVs represent about 70 percent of all ORVs purchased during that period. In Colorado alone, 26.7 percent of the state's population (more than 4.5 million in 2005) participated in ORV recreation, and Blahna (2006) highlights the current crisis of ORV proliferation and concomitant damage to resources.

A 2001 survey of ORV users in Colorado found that while many trail riders were reportedly knowledgeable of rules and regulations regarding off-trail restrictions, some riders still did not obey regulations (Frueh 2001). In the study, most ORV users admitted to going off trail, but felt that it was okay "just this one time." Adult users reportedly believe that it is their duty to pass on trail ethics to younger riders. Younger users (13–18 years of age) were more concerned with personal safety than environmental concerns. Chavez and Schuett (2005) found while many ORV users felt that humans should be in "harmony with nature," they were not focused on environmental concerns. A quarter of the respondents believed trails should always contain a variety of scenery, be controlled for erosion, and have posted signs at trailheads indicating difficulty and trail length. Most respondents used private lands for recreational riding and national forests second (Chavez and Schuett 2005). A survey of registered ORV owners in Utah found that BLM land was the primary destination for ATV, motorcycle, and 4×4 vehicle trips. Forest Service land was the second most preferred destination. Respondents surveyed reported mixed feelings with regard to law enforcement, with some believing transgressions by ORV users to be of minor concern (Fisher et al. 2001).

A study in Utah aimed at creating an inventory of ORV use occurring in 12 high-use or "hotspot" regions of USFS land found that ORV users had taken excessive measures to access closed routes by moving large boulders, removing posts, chain-sawing trees or logs, or purposefully negotiating terrain to create a new trail around management-placed and/or natural barriers to ORV traffic (Divine and Foti 2004).

The effective implementation and maintenance of successful park travel management plans depends upon adherence to certain design criteria. The Colorado Mountain Club and Wilderness Society (CMCWS 2004) outlines 10 steps to developing a comprehensive travel management plan:

1. Identify recreation and transportation goals for the planning area.
2. Assemble resource data.
3. Identify the baseline travel system.
4. Summarize public recreation desires and current recreational opportunities.
5. Analyze present and predicted future fiscal and personnel resources.
6. Calculate route density and quantify route distribution in comparison to high priority biological, physical, and cultural features.
7. Identify geographic subunits that constitute logical distinct recreation planning areas.
8. Develop management alternatives.
9. Review the final route assessment.
10. Implement the plan and monitor, evaluate, and adjust as needed.

Some monitoring efforts have benefited from the simultaneous observation and data collection of traffic and wildlife made possible by pneumatic road counters and GPS units (USGS 2005). However, Calvert et al. (2007) note that monitoring and enforcement may be impeded in some locations (and especially on BLM lands) due to their remoteness, insufficient signs, and inadequate staff and resources, challenges

which would also be relevant to the NPS. Adaptive management strategies targeted toward the specific needs of individual parks would potentially provide the most efficacy in resource management.

Given the general trend of increasing ORV use, appropriate travel management planning has increased among public agencies and various stakeholder groups. Other federal regulatory requirements concerning the protection of resources also provide guidance for travel management plans. For instance, Section 106 of the National Historic Preservation Act specifically requires that cultural resource information from the planning area's Class I inventory, and other existing cultural resources information, be considered when choosing among the range of possibilities in designating a planning area travel system for proposed designation. Moreover, agencies are required under Section 106 to identify the geographic area or areas within which the character or use of any historic properties may be directly or indirectly affected by an undertaking. Coordination with State Historic Preservation Officers and Indian Tribes prior to initiating the development of a travel management plan is also required (BLM 2006). Yankoviak (2005) argues that such up-to-date policies will provide improved guidance in solving ORV issues on USFS lands. However, challenges to the crafting and implementing of park travel management plans often arise which carry significant implications for the functional management of park resources.

Meyer (2002) prescribes regular trail maintenance and monitoring, including periodic inspections and condition assessments at five-year intervals. In addition, Meyer offers several management approaches that can be implemented to curtail trail degradation, including trail rerouting in cases where numerous segments have been degraded by recreational use; seasonal or type-of-use restrictions in instances when specific seasonal uses may be contributing to greater impacts; trail hardening, which involves the application of amendments to the trail surface; and outright trail closure as a last resort to protect threatened resources. Traffic volume restrictions or "controlled use" is also suggested as a means to prevent significant resource degradation, although enforcement is needed to implement this management strategy (Meyer 2002).

Christensen and Watson (2006) describe challenges resulting from the implementation of the 2006 *Bitterroot National Forest ORV Management Plan*, which included maintaining an up-to-date inventory of routes, working with ORV users to reduce impacts and conflicts, and working with all stakeholders to identify appropriate and acceptable ORV opportunities. Christensen and Watson also cite lessons learned from the USFS policy and experiences of planners nationwide, which suggest that a collaborative process with a "system-wide, forest-level perspective" is likely to be the most appropriate and successful strategy for developing a widely supported ORV travel management plan. Moreover, Christensen and Watson stress ongoing public involvement in ORV planning as being crucial for public acceptance of the resulting plans. In an assessment of the efficacy of such a cooperative effort in four counties in North Central Michigan, Nelson and Lynch (2001) conducted stakeholder interviews, surveys of ORV drivers, and investigations of route signage survival. They found that, after plan implementation, compliance with ORV rules increased as most riders supported the program.

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**APPENDIX B: LAKE MEREDITH NATIONAL RECREATION
AREA ACOUSTIC MONITORING AND MODELING
OF OFF ROAD VEHICLES**

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Table of Contents

1	Introduction	1
2	LAMR Acoustic Conditions	1
2.1	Noise Measurement Locations.....	2
2.1.1	Blue Creek	3
2.1.1.1	LAMR001.....	4
2.1.1.2	LAMR002.....	5
2.1.2	Rosita	6
2.1.2.1	LAMR003.....	6
2.1.2.3	LAMR005.....	7
2.2	Noise Measurement Campaigns.....	8
2.3	2008 Noise Measurement Results	8
2.4	2009 Sand Drags Noise Measurement Results	14
2.5	2009 Noise Measurement Results	19
3	Composite Source Creation	24
4	Modeling Alternatives	27
4.1	Alternative A	32
4.2	Alternative B.....	
4.3	Alternative C.....	37
4.4	Alternative D	37
4.5	Contour Areas.....	37
5	Summary	43
	Appendix A.....	A-1
	Appendix B.....	B-1
	Appendix C.....	C-1
	Appendix D.....	D-1

Figures

2-1	Map of Lake Meredith National Recreation Area (<i>Source: www.nps.gov/lamr</i>)	2
2-2	Noise Monitoring Sites in Blue Creek	3
2-3	Noise Monitoring Sites in Blue Creek, Close-up	4
2-4	Noise Monitor at Site LAMR001 located in Blue Creek	4
2-5	Weather Station Near Site LAMR001	5
2-6	Noise Monitor at Site LAMR002 located in Blue Creek	5
2-7	Noise Monitoring Sites in Rosita.....	6
2-8	Noise Monitor at Site LAMR003 located in Rosita.....	6
2-9	Noise Monitor and Weather Station at Site LAMR004 located in Rosita	7
2-10	Noise Monitor at Site LAMR005. Viewed from Above (left) and Below (right) of the Rise.....	7
3-1	Collage of ORV's Incorporated into the Composite Source.....	24
3-2	Representative A-weighted Time History at LAMR005 during Sand Drags.....	25

February 2011

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3-3	Distribution of Maximum Sound Levels for ORV Pass-bys Incorporated into Composite Source.....	26
3-4	Composite Source Average Measured Spectra Sound Level at Closest Point of Approach	26
3-5	Composite Source Measured Spectra Sound Level for 1000 ft Reference Sphere	27
4-1	Modeled ORV Trails in Rosita	29
4-2	Vertices of Area Near Entrance to Rosita (Shaded Yellow in Figure 4-1)	31
4-3	Track Profile of Area Near Entrance to Rosita (Shaded Yellow in Figure 4-1)	31
4-4	LAMR, Alternative A: Blue Creek ORV Area Modeled with Sigma Source.....	33
4-5	LAMR, Alternative A: Blue Creek ORV Area Modeled with Average Source	34
4-6	LAMR, Alternative A: Rosita Flats ORV Area Modeled with Sigma Source.....	35
4-7	LAMR, Alternative A: Rosita Flats ORV Area Modeled with Average Source	36
4-8	LAMR, Alternative B: Blue Creek ORV Area Modeled with 96 dB Source	39
4-9	LAMR, Alternative C: Blue Creek ORV Area Modeled with 96 dB Source	40
4-10	LAMR, Alternative C: Rosita Flats ORV Area Modeled with 96 dB Source	41
4-11	LAMR, Alternative D: Rosita Flats ORV Area Modeled with 96 dB Source	42

Tables

2-1	Latitude/Longitude Coordinates of Noise Monitoring Site Locations	3
2-2	Median Hourly Noise Metrics at LAMR001 during 2008 Campaign	9
2-3	Median Hourly Noise Metrics at LAMR002 during 2008 Campaign	10
2-4	Median Hourly Noise Metrics at LAMR003 during 2008 Campaign	11
2-5	Median Hourly Noise Metrics at LAMR004 during 2008 Campaign	12
2-6	Median Hourly Noise Metrics at LAMR005 during 2008 Campaign	13
2-7	Median Hourly Noise Metrics at LAMR001 during Sand Drags (20-22 February 2009)	14
2-8	Median Hourly Noise Metrics at LAMR002 during Sand Drags (20-22 February 2009)	15
2-9	Median Hourly Noise Metrics at LAMR003 during Sand Drags (20-22 February 2009)	16
2-10	Median Hourly Noise Metrics at LAMR004 during Sand Drags (20-22 February 2009)	17
2-11	Median Hourly Noise Metrics at LAMR005 during Sand Drags (20-22 February 2009)	18
2-12	Median Hourly Noise Metrics at LAMR001 during 2009 Campaign	19
2-13	Median Hourly Noise Metrics at LAMR002 during 2009 Campaign	20
2-14	Median Hourly Noise Metrics at LAMR003 during 2009 Campaign	21
2-15	Median Hourly Noise Metrics at LAMR004 during 2009 Campaign	22
2-16	Median Hourly Noise Metrics at LAMR005 during 2009 Campaign	23
4-1	A-weighted Maximum Noise Level for Composite Sources	32
4-4	LAMR, Alternative A: Blue Creek ORV Area Modeled with Sigma Source.....	32
4-5	LAMR, Alternative A: Blue Creek ORV Area Modeled with Average Source	33
4-6	LAMR, Alternative A: Rosita Flats ORV Area Modeled with Sigma Source.....	34
4-7	LAMR, Alternative A: Rosita Flats ORV Area Modeled with Average Source	35
4-8	LAMR, Alternative B: Blue Creek ORV Area Modeled with 96 dB Source	37
4-9	LAMR, Alternative C: Blue Creek ORV Area Modeled with 96 dB Source	38
4-10	LAMR, Alternative C: Rosita Flats ORV Area Modeled with 96 dB Source	39
4-11	LAMR, Alternative D: Rosita Flats ORV Area Modeled with 96 dB Source	40

1 Introduction

This report is a product of Wyle Laboratories' analysis of acoustic data measured at Lake Meredith National Recreation Area (LAMR). Also presented here are the alternatives for possible use of Off-Road Recreation Vehicles (ORVs) modeled in the National Park Service's (NPS) simulation noise model (NMSim). The objective is to give a summary of the existing acoustic conditions in the areas of LAMR that allow ORV use and show the impact of the alternatives that are being proposed for their use in these areas.

Section 2 contains a brief description of how the noise measurements were taken followed by a summary of the acoustic conditions calculated using NPS Acoustics Monitoring software. In Section 3 a description of how the ORVs were characterized as noise sources is provided. In section 4 the proposed alternatives are presented with a description of how they were modeled and a summary of the findings. All data and modeling files associated with the work performed for this report accompany it on electronic media. Section 5 provides a summary of the work presented in this report.

2 LAMR Acoustic Conditions

Two long-term noise monitoring campaigns were conducted in late 2008 and early 2009 to determine ORV noise exposure during low-use and peak-use seasons at the park. The measurements during November and December of 2008 were representative of the low-use or "quiet" season. Measurements during February and March 2009, particularly during the Sand Drags event, were representative of peak use of the park. The annual Sand Drags event draws an estimated 30,000 people to Lake Meredith and adjacent lands for a weekend of motorsports activities. Attendees participate in semi-organized drag races along sand bars of the Canadian River. The event attracts many off-road enthusiasts who drive ORVs including 4x4's, dune buggies, dirt bikes, ATV's, modified trucks and lifted trucks. Use of the park is concentrated primarily in the Rosita ORV area and off-park lands between US Highway 87 and the Rosita entrance. The Blue Creek ORV area also receives increased use.

For both campaigns, five noise monitoring sites were deployed to continuously measure sound levels, two at Blue Creek and three at Rosita. At select locations, audio was continuously recorded and local weather stations collected wind, temperature and humidity data.

Collected sound level data were used to determine percentile exceedance levels over the duration of each campaign as well as average percentile exceedance levels by hour of the day. The data was filtered to exclude periods of time when wind gusts exceeded 5 m/s. The natural level, L_{nat} , which represents ambient sound level exclusive of human or non-natural activity, was determined by means of the NPS offline-logging method. For this method, technicians listened to regularly sampled audio playback collected during the measurement campaign. As recommended by NPS, 10-second audio samples every 2 minutes for an entire recorded day were reviewed. Perceived sounds were categorized according to the NPS coding scheme to denote various natural and non-natural sounds. This post-processing analysis was conducted after the completion of the measurement campaign in a quiet environment with calibrated headphones. The result of the offline logging was an estimate of the percent time audible per hour of the day for non-natural and ORV noise, where possible. See below for special discussion regarding Blue Creek.

For offline logging analysis, traffic noise from US Hwy 87/287, which only impacted Rosita sites, was classified as non-natural and not included in the estimate of ORV audibility. Hwy 87/287 was approximately 1 mile from the western extent of Rosita and 3 miles from the eastern extent. Because the large distance from the highway to noise monitor sites relative to vehicle spacing, single traffic noise events could not be separated. At those distances, Hwy 87/287 traffic noise was characterized as a distance drone for most hours of the day.

Texas Farm-to-Market Road 1913 ran through Blue Creek and was approximately 1100 ft from noise monitoring site LAMR001 and 200 ft from LAMR002. An elevated bridge passed perpendicular to the shallow valley of the Blue Creek area. For offline logging analysis at Blue Creek, individual vehicle noise events could not be

distinguished between on-road vehicles traveling on FM 1913 versus off-road vehicles operating in Blue Creek. This was largely due to the fact that many street legal vehicles drive within the ORV area. The noise characteristic was similar for a pick-up truck driving on FM 1913 as the same pick-up driving in Blue Creek. Where possible, vehicles which appeared to be traveling on FM 1913, such as semi trucks, were classified as non-natural noises and excluded from the ORV estimate. Because all on-road vehicles could not be distinguished from ORVs, the percent time audible estimate at Blue Creek is an estimate of vehicle noise and not ORV noise exclusively.

This problem of blindly distinguishing noise source is an inherent limitation of the offline logging method where the listener is not at the park and in fact may never have been to the noise monitor site and thus does not have situational awareness to distinguish faint noise sources and nuances between sources.

The acoustic conditions for both low- and peak-use are reported in this section. Hourly sound levels for each noise monitoring location are plotted graphically for the 2008 and 2009 campaign in Appendices A and B, respectively. Hourly sounds levels are tabulated for the 2008 and 2009 campaign in Appendices C and D, respectively.

2.1 Noise Measurement Locations

There are two ORV areas within LAMR, Rosita at the southwest extent of the park and Blue Creek to the northwest of the lake. Rosita is larger and more frequently used. A map of LAMR is shown in Figure 2-1.

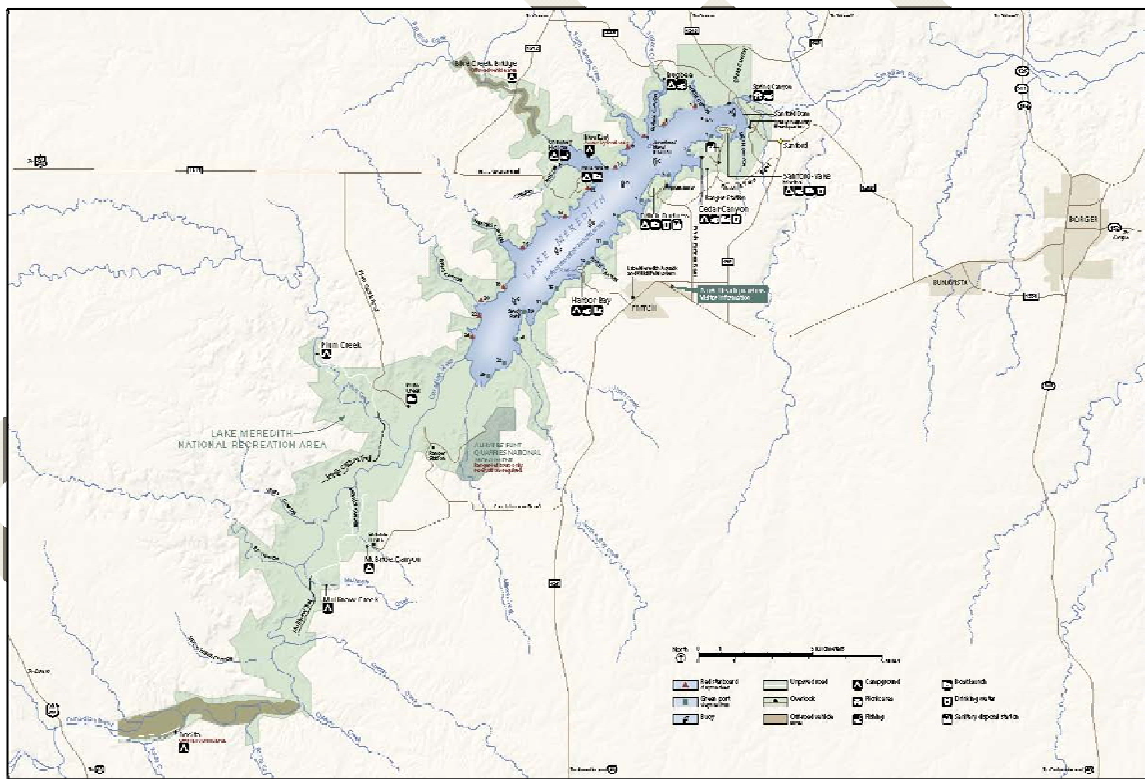


Figure 2-1. Map of Lake Meredith National Recreation Area (Source: www.nps.gov/lamr)

As noted above, two noise monitoring sites were located in Blue Creek and three in Rosita. The coordinates of the locations are shown in Table 2-1. All locations were selected in conjunction with Park Rangers to be near ORV activity but placed in inconspicuous locations, to the best of our ability, to avoid tampering or damage. Monitoring locations were the same for both campaigns. Monitoring locations LAMR001 and LAMR004 included audio recordings and weather monitoring stations. Equipment used included Larson Davis 831 sound level meters, Edirol R-09HR digital audio recorders, and HOBO weather stations.

Table 2-1. Latitude/Longitude Coordinates of Noise Monitoring Site Locations

Blue Creek		
LAMR001*	35° 43.37'	-101° 39.95'
LAMR002	35° 43.30'	-101° 39.70'
Rosita		
LAMR003	35° 28.17'	-101° 49.25'
LAMR004*	35° 28.12'	-101° 50.07'
LAMR005	35° 27.92'	-101° 51.13'

*Weather station co-located near noise monitoring site.

2.1.1 Blue Creek

Noise monitoring sites LAMR001 and LAMR002 were located in Blue Creek as shown in Figure 2-1 and close-up in Figure 2-2. LAMR001 and LAMR002 were approximately 1100 and 200 ft, respectively, from highway Farm to Market (FM) 1913. The green line in Figures 2-2 and 2-3 indicate the extent of Blue Creek.

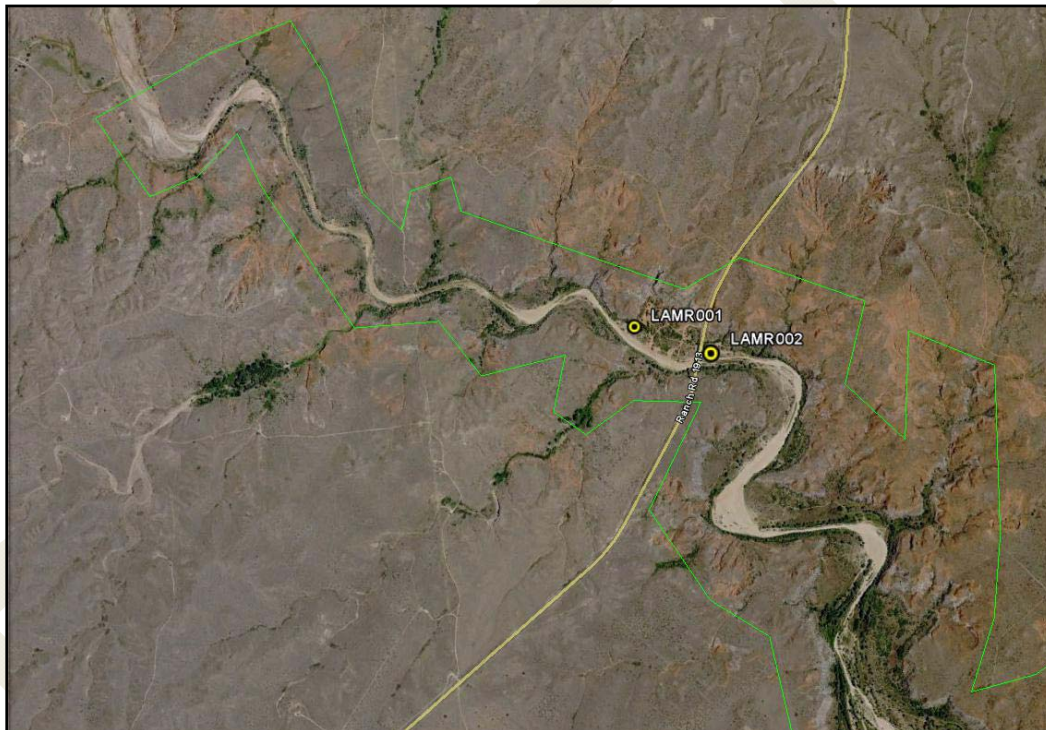
**Figure 2-2. Noise Monitoring Sites in Blue Creek**



Figure 2-3. Noise Monitoring Sites in Blue Creek, Close-up

2.1.1.1 LAMR001

LAMR001 was located to the north of FM1913 on a slight rise near the existing camping sites, as illustrated in Figures 2-4 and 2-5.



Figure 2-4. Noise Monitor at Site LAMR001 located in Blue Creek



Figure 2-5. Weather Station Near Site LAMR001

2.1.1.2 LAMR002

LAMR002 was located near the sand bar below and to the south of the FM1913 bridge, as shown in Figure 2-6.



Figure 2-6. Noise Monitor at Site LAMR002 located in Blue Creek

2.1.2 Rosita

Noise monitoring sites LAMR003, LAMR004 and LAMR005 were located in Rosita as shown in Figure 2-7. LAMR003 and LAMR005 are less than approximately 3 and 1.25 miles from Hwy 87/287, respectively. The green line shown in Figure 2-7 indicates the extent of Rosita.



Figure 2-7. Noise Monitoring Sites in Rosita

2.1.2.1 LAMR003

LAMR003 was located near a campsite/fire pit near the southeastern extent of Rosita. It is near a popular foot path which climbs up to a look-out on the bluff, as shown in Figure 2-8.



Figure 2-8. Noise Monitor at Site LAMR003 located in Rosita

2.1.2.2 LAMR004

LAMR004 was located near the center of Rosita in a large relatively open area. There were several primary trails on all sides. Illustrations are shown in Figure 2-9.



Figure 2-9. Noise Monitor and Weather Station at Site LAMR004 located in Rosita

2.1.2.3 LAMR005

LAMR005 was on a slight rise near the park entrance to Rosita. Figure 2-10 shows the composite source detailed in Section 3 was determined from measurements at this location, because almost all traffic entering the park passed by this site and the monitor was approximately 20 ft from the vehicles at the closest point of approach, as shown in Figure 2-10.



Figure 2-10. Noise Monitor at Site LAMR005. Viewed from Above (left) and Below (right) of the Rise

2.2 Noise Measurement Campaigns

Two measurement campaigns were conducted in late 2008 and early 2009. Both campaigns were at least four weeks in duration to satisfy the 25-day noise monitor collection requirement per the NPS Air-Tour Management Program Acoustic Sampling and Resource Management Guide.

The 2008 campaign targeted the season with relatively low park use or minimal visitors. Noise monitors were deployed Wednesday 12 November 2008, and retrieved Wednesday 10 December 2008.

The 2009 campaign targeted the annual Sand Drags event, which is typically held the last weekend in February. It is a 3-day event, but many attendees come a few days early and or stay a few days after. The Sand Drags event attracts the highest number of park visitors for any given weekend annually, representing peak park use. For 2009, Sand Drags was held Friday through Sunday February 20 – 22. Most of the activities are on Friday and Saturday. Noise monitors were deployed Monday 16 February 2009 and retrieved Thursday 19 March 2009.

2.3 2008 Noise Measurement Results

All measured data was analyzed using the NPS Acoustic Monitoring Toolbox software per NPS protocol. The resulting percentile exceedance levels by hour of the day per site are shown in Tables 2-2 through 2-6.

Non-natural noise from oil derrick generators was audible at all locations for almost all hours of the day. Traffic noise from US Hwy 87/287 similarly was audible at LAMR003, LAMR004 and LAMR005 in Rosita almost all hours of the day. These non-natural noise source significantly contributed to the percent time audible analysis used to determine the Natural Level, $L_{natural}$ (Lnat), which is an estimate of the park's intrinsic noise level exclusive of human or non-natural noises. This caused the Lnat estimate to be nearly equivalent to the measured minimum sound level, Lmin. If non-natural noise was audible 100% of a given hour then the Lnat would be less than the measured Lmin.

February 2011

Prepared for National Park Service

Table 2-2. Median Hourly Noise Metrics at LAMR001 during 2008 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	100	5.8	26.3	27.8	29.0	≤ 26.3	31.0	33.8	39	45.2	32.1
1	100	3.8	26.4	27.4	28.7	≤ 26.4	30.3	32.8	36.8	42.6	31.1
2	100	2.5	26.9	28.0	29.4	≤ 26.9	31.1	33.8	38.7	44.6	32.7
3	100	1.3	27.5	28.3	29.6	≤ 27.5	31.3	33.7	38.3	46.0	32.5
4	100	3.3	27.2	28.1	29.3	≤ 27.2	31.4	34.4	40.4	50.7	33.5
5	100	17.1	27.2	28.1	29.5	≤ 27.2	31.9	36.0	46.6	55.4	37.0
6	100	34.2	27.5	28.8	30.5	≤ 27.5	33.9	40.9	52.4	58.7	40.5
7	100	37.5	28.1	29.3	30.9	≤ 28.1	33.4	41.1	49.7	56.5	39.6
8	100	34.2	27.8	29.1	30.9	≤ 27.8	33.5	39.8	49.0	56.0	38.6
9	100	21.7	26.6	28.3	29.6	≤ 26.6	32.6	40.6	50.2	58.5	39.4
10	100	30.0	25.6	26.7	28.5	≤ 25.6	32.4	41.7	54.2	61.7	42.1
11	100	34.2	23.8	24.9	27.2	≤ 23.8	32.6	40.3	51.0	61.4	39.8
12	100	35.8	23.7	24.7	26.3	≤ 23.7	32.0	41.1	52.4	60.9	41.7
13	100	40.8	22.4	24.1	27.6	≤ 22.4	34.6	43.9	56.3	64.7	43.2
14	97.9	44.2	23.0	24.6	27.2	24.6	35.0	43.3	52.3	65.2	41.3
15	91.7	39.6	23.1	25.3	29.2	27.4	35.0	43.5	55.1	59.9	43.1
16	91.3	41.7	23.4	24.6	27.3	25.9	34.8	43.2	53.1	62.2	41.7
17	90.0	28.3	22.8	23.7	26.0	25.0	32.3	41.1	50.1	59.6	39.7
18	93.3	34.2	23.4	24.5	26.3	25.4	32.1	41.7	51.6	58.8	40.7
19	95.8	19.2	25.0	26.3	28.6	26.6	32.0	37.6	46.1	54.4	36.4
20	97.1	8.8	26.7	27.5	28.8	27.5	33.0	36.3	44.9	55.1	36.7
21	100	5.0	26.2	27.2	28.9	≤ 26.2	31.3	35.4	44.0	53.6	34.3
22	100	5.0	25.8	26.9	28.0	≤ 25.8	30.5	34.2	40.2	49.8	32.7
23	100	4.2	26.2	27.4	28.7	≤ 26.2	30.7	33.6	39.8	50.0	32.6

February 2011

Prepared for National Park Service

Table 2-3. Median Hourly Noise Metrics at LAMR002 during 2008 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	100	5.8	25.0	26.0	26.9	≤ 25.0	28.6	32.0	35.9	42.7	30.7
1	100	3.8	25.5	26.3	27.3	≤ 25.5	28.9	31.2	35.5	40.5	30.3
2	100	2.5	25.1	25.9	26.6	≤ 25.1	29.1	31.7	36.5	54.5	31.1
3	100	1.3	25.9	27.1	28.0	≤ 25.9	29.3	31.8	43.7	63.7	37.2
4	100	3.3	26.3	27.2	27.9	≤ 26.3	29.5	32.0	40.5	58.9	32.9
5	100	17.1	25.9	26.8	27.8	≤ 25.9	30.1	34.7	49.5	60.5	39.4
6	100	34.2	26.5	27.6	28.9	≤ 26.5	31.5	42.3	56.3	68.4	44.0
7	100	37.5	27.0	28.2	29.5	≤ 27.0	32.9	47.2	58.3	68.2	46.0
8	100	34.2	26.4	27.4	29.2	≤ 26.4	32.6	43.2	58.3	67.2	45.9
9	100	21.7	26.4	27.2	28.4	≤ 26.4	32.6	45.6	60.0	68.4	46.8
10	100	30.0	25.4	26.3	27.5	≤ 25.4	32.4	45.0	59.3	70.5	47.3
11	100	34.2	24.6	25.5	27.0	≤ 24.6	33.4	47.2	59.6	70.1	47.2
12	100	35.8	24.7	25.9	28.0	≤ 24.7	33.1	44.9	59.4	69.7	46.6
13	100	40.8	23.8	25.6	27.0	≤ 23.8	33.1	44.4	59.9	70.0	45.8
14	97.9	44.2	22.5	23.3	26.1	23.3	32.5	47.4	61.8	70.7	49.5
15	91.7	39.6	21.7	23.2	26.9	24.9	32.2	47.3	59.8	68.4	47.0
16	91.3	41.7	22.5	24.1	27.0	25.8	32.3	46.9	59.5	67.6	46.8
17	90	28.3	22.1	23.6	25.6	25.0	30.0	44.9	58.8	71.2	46.8
18	93.3	34.2	23.5	24.8	26.2	25.4	29.4	44.7	58.1	68.0	45.0
19	95.8	19.2	24.1	25.1	26.4	25.3	29.6	34.0	50.7	63.6	40.0
20	97.1	8.8	24.5	25.4	26.9	25.4	30.1	34.4	49.0	61.2	37.5
21	100	5.0	25.0	25.7	27.2	≤ 25.0	29.4	32.5	49.3	61.8	38.0
22	100	5.0	25.0	25.6	26.4	≤ 25.0	29.4	32.4	45.1	56.6	34.0
23	100	4.2	25.4	26.2	27.1	≤ 25.4	28.7	32.8	42.3	57.9	33.7

February 2011

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Table 2-4. Median Hourly Noise Metrics at LAMR003 during 2008 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	99.6	7.9	23.7	24.7	26.2	23.7	29.5	32.9	36.1	40.1	30.7
1	95.0	6.3	23.1	24.1	26.1	24.4	29.5	32.8	36.4	41.0	30.8
2	97.9	3.3	24.2	25.0	26.5	25.0	29.0	32.6	36.4	43.0	31.1
3	97.9	4.6	24.8	25.9	27.2	25.9	29.0	33.7	37.3	42.0	31.5
4	89.2	4.2	25.8	26.8	28.1	27.5	30.9	33.5	37.0	42.5	31.9
5	83.8	5.4	26.4	27.3	28.7	28.5	30.8	34.8	40.0	45.8	32.6
6	87.1	7.9	26.4	27.3	28.9	28.4	32.2	35.6	40.8	44.3	34.4
7	94.2	7.9	28.3	29.3	31.4	29.9	33.8	38.1	49.4	59.4	38.4
8	94.2	2.5	29.2	30.3	32.9	31.6	35.4	39.2	45.6	56.1	38.8
9	88.3	7.1	31.3	32.8	35.3	34.7	38.0	41.9	48.5	56.6	40.4
10	64.6	17.1	32.3	33.9	35.3	36.1	38.8	43.7	53.6	66.4	45.5
11	63.3	31.3	29.9	30.6	33.5	34.5	38.3	46.9	55.0	60.9	45.4
12	62.9	40.8	27.2	28.7	30.5	31.9	37.5	46.2	56.4	65.8	46.7
13	65.8	31.3	27.9	29.0	32.8	34.3	39.7	49.2	54.6	59.6	45.7
14	62.5	29.2	29.1	30.9	33.9	35.5	39.6	46.3	52.3	62.2	46.0
15	72.1	35.0	30.9	32.6	35.4	36.0	41.1	47.7	60.8	73.9	49.5
16	77.1	35.0	28.2	30.1	32.6	32.7	38.1	45.2	55.7	69.4	48.1
17	90.8	37.9	26.6	27.9	30.2	28.9	35.1	41.7	52.6	59.4	43.2
18	95.8	16.7	25.2	26.6	29.3	27.4	32.9	38.4	45.4	52.3	36.8
19	96.7	8.3	24.9	25.8	28.4	26.3	31.3	36.8	44.8	49.0	34.3
20	98.3	4.6	24.4	25.4	27.3	25.4	30.1	34.1	39.4	48.4	31.5
21	92.9	6.3	24.7	25.6	27.0	26.2	28.9	31.5	38.3	45.5	30.3
22	94.2	1.7	25.1	25.7	27.1	26.2	28.7	32.3	38.3	47.9	30.9
23	95.0	3.3	23.8	25.0	26.3	25.2	28.5	32.5	37.7	45.2	30.7

February 2011

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Table 2-5. Median Hourly Noise Metrics at LAMR004 during 2008 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	99.6	7.9	24.7	25.6	27.2	24.7	31.0	34.2	39.7	45.8	32.6
1	95.0	6.3	24.9	25.8	27.4	26.1	30.0	34.0	38.3	44.9	32.5
2	97.9	3.3	24.2	25.2	26.9	25.2	29.9	33.6	38.6	44.4	31.7
3	97.9	4.6	25.3	26.5	28.3	26.5	30.8	34.7	37.7	44.4	32.2
4	89.2	4.2	25.7	27.1	28.8	28.1	30.9	36.3	40.4	44.8	33.1
5	83.8	5.4	26.3	27.2	28.5	28.3	30.8	35.2	40.0	43.9	33.1
6	87.1	7.9	26.4	27.5	29.5	28.4	32.0	36.5	42.3	47.8	33.9
7	94.2	7.9	27.8	28.9	30.2	29.3	32.5	37.7	42.9	50.3	35.7
8	94.2	2.5	30.8	31.5	33.1	32.1	37.2	41.5	48.3	57.0	39.1
9	88.3	7.1	33.3	34.9	36.8	36.3	39.3	44.7	49.7	57.6	42.0
10	64.6	17.1	33.1	34.8	38.0	39.5	42.9	48.6	55.2	67.4	45.6
11	63.3	31.3	32.0	33.4	36.0	36.8	40.2	47.1	53.5	65.8	46.5
12	62.9	40.8	32.2	33.5	37.3	38.3	40.6	46.3	53.1	62.9	44.6
13	65.8	31.3	32.9	34.1	36.7	37.5	41.4	48.6	58.5	68.0	48.8
14	62.5	29.2	32.1	33.5	36.0	36.9	40.1	48.1	56.3	63.5	45.2
15	72.1	35.0	32.3	33.5	36.7	37.5	41.7	47.9	56.5	65.7	47.0
16	77.1	35.0	29.4	31.1	33.5	33.7	37.6	45.7	53.3	62.0	43.3
17	90.8	37.9	27.1	27.9	29.8	29.0	35.0	43.8	52.4	60.1	42.5
18	95.8	16.7	26.2	27.0	28.9	27.3	32.7	37.4	44.6	52.6	35.3
19	96.7	8.3	26.5	27.3	29.1	27.6	32.1	36.0	43.6	50.0	34.1
20	98.3	4.6	25.4	26.6	29.1	26.6	31.4	36.1	41.6	47.2	35.5
21	92.9	6.3	26.2	27.4	29.4	28.3	31.8	35.3	40.0	43.9	33.7
22	94.2	1.7	26.0	27.0	28.1	27.5	31.3	36.0	38.6	46.1	33.1
23	95.0	3.3	25.6	26.4	27.7	26.6	30.5	33.9	38.7	43.8	31.8

February 2011

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Table 2-6. Median Hourly Noise Metrics at LAMR005 during 2008 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	99.6	7.9	25.9	27.5	30.6	25.9	35.6	40.2	47.6	61.9	41.9
1	95.0	6.3	26.2	27.9	30.6	28.3	35.9	41.2	44.7	52.8	38.2
2	97.9	3.3	25.3	27.1	30.0	27.1	35.7	42.2	46.5	51.1	39.5
3	97.9	4.6	26.5	27.9	30.3	27.9	35.2	40.3	46.2	51.4	39.4
4	89.2	4.2	27.0	28.5	31.3	30.5	34.7	41.2	45.5	48.6	38.3
5	83.8	5.4	27.4	29.4	31.4	31.0	36.6	43.4	50.4	54.1	42.7
6	87.1	7.9	30.8	32.0	34.4	33.7	38.5	42.8	48.8	61.7	44.1
7	94.2	7.9	32.2	33.8	36.1	34.6	39.8	45.3	49.3	59.3	44.1
8	94.2	2.5	35.2	36.7	38.8	37.5	42.3	46.1	50.6	64.4	45.2
9	88.3	7.1	34.8	36.9	39.3	38.7	41.9	47.7	56.3	68.4	47.9
10	64.6	17.1	33.9	35.2	37.6	39.0	40.9	49.2	59.7	74.2	48.8
11	63.3	31.3	34.5	35.8	37.6	38.5	42.4	51.3	62.9	75.4	52.3
12	62.9	40.8	33.8	35.7	41.6	42.8	44.3	53.9	63.5	78.6	54.2
13	65.8	31.3	31.5	33.1	35.6	36.7	45.3	54.4	71.5	85.1	58.7
14	62.5	29.2	31.0	33.1	35.9	37.2	42.7	54.1	72.3	90.3	62.1
15	72.1	35.0	31.6	33.3	36.3	37.3	42.4	53.8	72.9	91.8	65.4
16	77.1	35.0	32.7	34.7	36.8	36.9	42.2	52.4	70.1	94.5	63.4
17	90.8	37.9	33.1	34.1	36.0	35.2	40.4	48.8	59.7	77.2	52.4
18	95.8	16.7	33.4	35.4	38.0	35.9	41.8	46.7	56.1	69.7	48.9
19	96.7	8.3	35.3	37.0	39.1	37.5	42.2	46.5	52.8	65.9	46.6
20	98.3	4.6	33.4	35.6	39.2	35.6	42.5	48.0	52.4	66.1	45.1
21	92.9	6.3	32.5	34.4	37.5	36.0	42.6	47.0	50.4	63.0	45.8
22	94.2	1.7	30.8	33.0	37.0	34.9	40.7	45.4	49.8	59.8	44.2
23	95.0	3.3	27.8	29.7	33.7	30.7	38.5	42.8	48.7	60.2	42.1

February 2011

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2.4 2009 Sand Drags Noise Measurement Results

Similar to the 2008 campaign, oil derricks and traffic noise from Hwy 87/287 was audible. However, human activity from the Sand Drags event, such as ORV engine noise, campfires, people talking, portable generators, etc., were the prevalent audible noise sources, as shown in Tables 2-6 through 2-11.

Table 2-7. Median Hourly Noise Metrics at LAMR001 during Sand Drags (20-22 February 2009)

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	100	0	56.9	57.5	58	≤ 56.9	58.5	59.1	59.6	61.8	58.6
1	100	0	57.3	57.7	58.1	≤ 57.3	58.7	59.2	59.7	60.3	58.7
2	100	0	56.2	58.0	58.6	≤ 56.2	59.4	59.9	60.1	60.6	59.4
3	100	0	57.2	57.6	58.1	≤ 57.2	58.5	59.1	59.4	60.6	58.5
4	100	0	58.0	58.7	59.0	≤ 58.0	59.4	59.7	60.1	61.2	59.4
5	100	0.4	58.4	58.9	59.2	≤ 58.4	59.6	59.8	60.1	61.4	59.5
6	100	0	58.2	58.9	59.2	≤ 58.2	59.6	59.9	60.3	61.4	59.6
7	100	0	56.3	56.7	57.1	≤ 56.3	59.6	60.0	60.5	61.5	59.6
8	100	0	54.0	54.5	57.5	≤ 54.0	59.9	60.2	60.6	61.8	59.6
9	100	0	55.4	56.4	56.8	≤ 55.4	59.1	59.9	60.3	60.8	58.8
10	85.6	13.3	25.4	27.4	37.7	35.2	57.4	59.4	60.2	62.6	57.7
11	67.8	13.3	23.1	26.4	31.1	32.5	39.4	54.8	58.1	61.2	54.6
12	58.9	6.7	33.6	35.2	39.6	41.8	45.5	52.7	59.1	60.5	54.8
13	71.1	25.6	20.7	22.2	40.5	41.2	45.8	53.1	64.8	72.7	54.7
14	56.7	33.3	20.4	21.6	24.3	26.1	30.1	40.9	57.8	70.6	45.3
15	83.3	37.8	19.6	21.5	24.0	23.7	33.2	45.7	60.5	76.2	49.6
16	93.3	56.7	20.5	22.8	27.3	24.6	42.3	48.9	62.0	74.5	52.3
17	68.9	22.2	20.6	22.9	30.4	33.5	41.3	54.8	59.7	67.1	50.7
18	88.9	40.0	21.0	22.3	27.6	24.9	41.9	53.8	60.5	64.7	49.6
19	98.9	32.2	21.4	22.9	25.5	22.9	38.7	48.5	57.1	71.1	45.7
20	100	5.6	21.7	22.4	53.6	≤ 21.7	56.0	58.6	60.1	70.1	56.7
21	100	5.6	55.6	57.5	58.0	≤ 55.6	58.6	59.0	59.4	60.2	58.5
22	100	0	56.4	57.5	58.1	≤ 56.4	58.7	59.1	59.6	61.2	58.7
23	100	0	56.2	57.6	58.3	≤ 56.2	59.2	59.9	60.4	62.1	59.3

February 2011

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Table 2-8. Median Hourly Noise Metrics at LAMR002 during Sand Drags (20-22 February 2009)

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	100	0.0	26.9	27.6	28.5	≤ 26.9	30.4	34.5	51.4	60.7	38.8
1	100	0.0	26.5	27.1	28.2	≤ 26.5	30.0	34.5	46.5	57.8	36.2
2	100	0.0	27.4	28.1	29.2	≤ 27.4	30.9	33.5	50.1	59.1	35.8
3	100	0.0	26.8	27.6	28.7	≤ 26.8	30.3	32.5	45.4	54.3	34.4
4	100	0.0	27.0	27.7	28.7	≤ 27.0	30.1	32.1	37.6	42.3	31.9
5	100	0.4	27.9	28.6	29.5	≤ 27.9	31.0	33.5	50.2	60.4	37.8
6	100	0.0	26.3	27.2	28.2	≤ 26.3	30.1	32.9	49.6	63.5	38.5
7	100	0.0	26.7	27.7	29.0	≤ 26.7	33.1	37.3	51.7	64.9	42.1
8	100	0.0	25.3	26.3	27.1	≤ 25.3	28.9	38.3	55.7	66.1	42.3
9	100	0.0	23.8	25.2	26.3	≤ 23.8	29.4	40.6	55.6	64.3	42.4
10	85.6	13.3	22.8	23.6	26.4	25.4	30.4	44.3	61.8	67.5	46.7
11	67.8	13.3	21.3	23.0	25.0	25.9	30.8	43.1	58.6	67.5	44.8
12	58.9	6.7	22.1	22.8	25.4	27.2	31.7	55.4	69.8	76.8	56.9
13	71.1	25.6	19.4	20.1	21.7	22.5	29.0	47.2	59.7	71.0	47.3
14	56.7	33.3	20.4	22.1	25.9	29.5	38.5	62.4	75.2	85.4	63.0
15	83.3	37.8	19.9	21.4	29.6	28.5	41.6	57.7	71.1	82.2	58.7
16	93.3	56.7	21.9	23.4	29.6	25.3	44.1	61.3	75.1	84.3	61.7
17	68.9	22.2	20.6	23.1	26.7	28.1	36.7	52.0	66.3	84.3	55.8
18	88.9	40.0	19.9	23.0	24.8	24.1	35.8	51.8	62.6	79.6	50.5
19	98.9	32.2	20.1	21.2	22.4	21.2	33.2	45.6	57.5	66.2	44.7
20	100	5.6	21.6	22.5	24.3	≤ 21.6	27.3	45.2	58.2	62.9	45.1
21	100	5.6	22.0	22.5	23.3	≤ 22.0	26.4	37.5	55.6	65.6	42.5
22	100	0.0	24.1	24.8	25.6	≤ 24.1	27.9	40.7	55.4	59.6	41.8
23	100	0.0	24.1	24.8	26.2	≤ 24.1	28.2	36.0	54.0	68.1	41.2

February 2011

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Table 2-9. Median Hourly Noise Metrics at LAMR003 during Sand Drags (20-22 February 2009)

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	66.7	38.9	31.1	32.3	33.6	34.1	37.4	52.4	58.2	69.7	47.9
1	73.3	45.6	33.6	34.1	35.4	35.6	38.5	56.2	65.0	72.9	53.7
2	70.0	33.3	32.8	34.9	36.1	36.4	38.6	44.7	57.1	69.8	46.2
3	85.6	41.1	27.0	28.6	30.0	29.7	34.7	43.5	50.5	55.9	40.0
4	100	47.8	26.7	27.4	28.3	≤ 26.7	30.3	35.9	40.9	50.4	33.2
5	100	4.4	26.0	26.7	27.7	≤ 26.0	30.0	34.3	36.4	48.9	33.6
6	100	26.7	27.0	27.8	28.9	≤ 27.0	31.1	34.2	35.3	42.5	32.4
7	100	5.6	27.9	28.4	29.5	≤ 27.9	34.1	36.5	39.4	44.0	34.9
8	100	37.8	28.3	29.5	30.6	≤ 28.3	32.8	36.9	49.7	62.2	40.5
9	100	70.0	31.6	32.5	33.7	≤ 31.6	36.3	46.0	57.0	71.0	46.0
10	93.3	85.6	29.1	30.6	34.5	32.2	39.8	54.0	68.4	81.1	55.8
11	75.6	74.4	25.9	28.5	33.3	33.7	41.1	52.5	60.9	85.6	54.0
12	55.6	53.3	29.0	30.3	36.2	39.2	45.2	58.8	71.2	87.2	59.1
13	72.2	68.9	29.2	31.7	35.4	36.3	45.2	58.0	75.0	88.5	61.8
14	71.1	71.1	30.7	33.6	36.1	36.7	43.5	52.7	72.4	88.9	60.2
15	67.8	67.8	28.7	32.9	36.4	38.1	43.7	55.4	67.7	85.8	59.8
16	77.8	73.3	33.4	35.1	38.4	38.6	43.9	54.6	68.0	85.6	57.1
17	82.2	82.2	32.0	34.5	37.5	37.3	42.9	52.5	66.1	85.8	55.8
18	96.7	95.6	27.7	29.1	34.1	29.5	44.6	56.3	64.5	86.0	56.3
19	100	77.8	25.9	27.3	29.3	≤ 25.9	33.2	47.8	61.7	72.8	51.0
20	100	66.7	26.7	27.8	30.1	≤ 26.7	40.8	51.1	61.0	71.1	49.3
21	100	73.3	24.6	25.6	31.1	≤ 24.6	37.2	50.3	60.3	68.9	47.9
22	100	57.8	28.9	31.1	33.4	≤ 28.9	37.6	50.2	61.5	73.0	49.4
23	76.7	16.7	30.0	31.3	33.0	33.2	40.2	43.7	48.8	57.0	41.6

February 2011

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Table 2-10. Median Hourly Noise Metrics at LAMR004 during Sand Drags (20-22 February 2009)

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	66.7	38.9	36.7	37.4	38.6	39.3	41.4	47.0	53.7	65.9	44.9
1	73.3	45.6	41.0	41.6	43.0	43.2	45.4	51.1	55.1	67.0	48.2
2	70.0	33.3	38.1	40.2	42.5	42.8	45.5	50.2	54.5	61.1	47.4
3	85.6	41.1	31.6	32.8	35.4	34.7	43.7	47.8	52.7	65.8	45.6
4	100	47.8	27.8	28.7	30.4	≤ 27.8	44.3	45.7	47.3	49.0	44.4
5	100	4.4	27.9	28.9	30.5	≤ 27.9	33.2	39.3	53.1	56.2	44.4
6	100	26.7	28.9	29.8	30.9	≤ 28.9	42.7	47.3	48.1	48.7	44.0
7	100	5.6	30.5	31.3	33.9	≤ 30.5	35.9	46.2	46.8	48.8	41.5
8	100	37.8	32.9	33.9	35.5	≤ 32.9	38.4	46.0	50.1	65.2	44.0
9	100	70.0	36.9	38.4	40.0	≤ 36.9	44.2	51.5	56.3	64.6	48.4
10	93.3	85.6	35.1	38.8	43.2	40.5	47.1	55.1	62.9	73.2	53.7
11	75.6	74.4	36.6	38.3	41.4	41.7	47.1	53.3	58.8	70.9	50.5
12	55.6	53.3	34.2	36.9	40.9	42.3	45.9	64.9	69.6	74.8	61.2
13	72.2	68.9	32.1	34.2	36.9	37.3	41.2	51.7	61.0	73.5	50.2
14	71.1	71.1	33.1	35.1	37.2	37.7	40.9	47.1	58.2	71.1	47.3
15	67.8	67.8	35.0	36.5	38.6	39.4	42.6	49.4	56.6	72.0	46.7
16	77.8	73.3	36.8	39.8	43.8	44.1	48.9	55.7	63.0	70.6	53.2
17	82.2	82.2	37.7	40.3	44.1	43.9	50.0	55.3	62.5	72.2	53.7
18	96.7	95.6	33.4	35.3	38.1	35.9	44.3	51.4	59.0	68.1	48.6
19	100	77.8	30.4	31.9	35.6	≤ 30.4	47.0	51.3	57.5	66.7	49.2
20	100	66.7	26.8	28.7	32.1	≤ 26.8	43.8	50.1	60.6	67.6	49.2
21	100	73.3	31.4	32.2	33.7	≤ 31.4	39.8	47.6	60.2	69.8	48.5
22	100	57.8	37.9	38.9	40.3	≤ 37.9	44.6	50.7	58.7	64.0	48.0
23	76.7	16.7	35.4	36.1	37.2	37.3	39.8	44.0	50.2	54.5	41.8

February 2011

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Table 2-11. Median Hourly Noise Metrics at LAMR005 during Sand Drags (20-22 February 2009)

Hour	Non-Nat %	ORV %	Lmin dBA	L99 dBA	L90 dBA	Lnat dBA	L50 dBA	L10 dBA	L01 dBA	Lmax dBA	Leq dBA
0	66.7	38.9	44.3	45.1	46.8	47.7	51.4	64.4	78.3	92.6	66.8
1	73.3	45.6	47.7	48.7	49.9	50.1	54.9	65.2	79.0	96.1	66.8
2	70.0	33.3	46.7	47.8	48.7	48.9	50.7	59.5	76.7	86.2	63.0
3	85.6	41.1	46.0	46.4	47.1	47.0	49.5	54.3	70.9	87.6	60.1
4	100	47.8	46.8	47.2	47.9	≤ 46.8	48.9	50.4	61.8	81.8	53.6
5	100	4.4	46.3	46.8	47.4	≤ 46.3	49.0	49.5	52.1	72.9	50.3
6	100	26.7	46.0	47.0	47.4	≤ 46.0	48.0	49.3	55.9	70.9	50.0
7	100	5.6	45.9	46.6	47.8	≤ 45.9	48.9	51.1	61.7	80.8	57.0
8	100	37.8	44.6	45.6	46.4	≤ 44.6	49.7	58.9	73.4	84.0	60.8
9	100	70.0	43.8	44.7	49.1	≤ 43.8	53.9	66.5	77.8	95.1	67.1
10	93.3	85.6	43.4	44.6	47.9	45.3	58.6	73.4	85.6	100.4	73.1
11	75.6	74.4	44.2	47.0	55.2	56.1	63.2	73.0	85.6	102.9	74.6
12	55.6	53.3	46.2	48.9	53.5	57.1	62.7	74.6	85.0	98.2	73.1
13	72.2	68.9	44.4	47.8	52.9	53.9	61.0	74.4	86.3	97.5	74.4
14	71.1	71.1	40.2	42.5	47.7	49.0	60.1	78.8	87.7	100.5	76.3
15	67.8	67.8	41.6	43.9	50.4	52.2	60.3	73.2	85.5	98.4	73.2
16	77.8	73.3	44.1	46.2	51.1	51.4	61.6	75.1	86.9	97.5	75.9
17	82.2	82.2	42.7	46.3	51.5	51.1	63.2	75.4	86.5	102.7	75.8
18	96.7	95.6	47.5	50.9	55.5	52.1	64.6	77.2	87.9	98.9	76.5
19	100	77.8	48.3	49.5	54.6	≤ 48.3	63.4	74.2	83.2	97.2	72.4
20	100	66.7	49.3	50.8	54.6	≤ 49.3	61.6	72.4	82.8	98.5	72.4
21	100	73.3	51.5	53.7	58.6	≤ 51.5	64.1	72.7	80.6	88.9	70.7
22	100	57.8	48.7	50.0	52.1	≤ 48.7	61.8	72.8	82.3	91.4	70.2
23	76.7	16.7	37.7	39.3	41.6	42.0	48.4	58.4	68.3	77.5	56.5

February 2011

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2.5 2009 Noise Measurement Results

Tables 2-12 through 2-16 shows that noise data in this section was inclusive of all 2009 noise measurements not Sand Drags only, as presented in Section 2.4.

Table 2-12. Median Hourly Noise Metrics at LAMR001 during 2009 Campaign

Hour	Non-Nat %	ORV %	Lmin dBA	L99 dBA	L90 dBA	Lnat dBA	L50 dBA	L10 dBA	L01 dBA	Lmax dBA	Leq dBA
0	94.6	0.8	26.2	27	28.3	27.5	30.4	34.2	39.4	45	32.7
1	100	0.4	26.5	27.6	28.7	≤ 26.5	31.4	35	40.7	48	32.8
2	99.6	0	27.4	28.6	29.8	27.4	31.6	34.7	39.2	43.6	32.7
3	99.6	0	27.2	28.4	29.6	27.2	31.8	34.6	38.4	43.6	32.7
4	94.2	0	27.7	28.5	29.7	29.1	31.7	34.9	39.5	45.1	33.4
5	100	0.4	28.2	29	30.1	28.2	31.7	34.6	40.3	49.6	33.2
6	94.6	7.9	28.4	29.1	29.9	29.4	32.9	39.2	45.7	53.8	36.6
7	97.9	5.4	29.1	29.9	30.9	29.9	33.6	41	49.7	55.3	38.5
8	96.3	7.9	27.6	28.8	31.1	29.1	33.8	42.1	51.1	57.6	39.6
9	82.9	7.5	27.2	28.2	29.7	29.6	32.9	40.6	50.8	60.6	38
10	80	14.2	25.4	27.4	29	29	32	43.2	52.9	60.2	40.5
11	69.2	13.8	23.7	25.1	27.7	28.4	31.3	40.7	51.1	60.7	39.4
12	64.6	15.4	22.5	24.4	25.9	27.1	30.7	41.3	49.9	60.9	39.2
13	68.8	21.3	22.9	24.1	26.3	26.9	31.5	42	52.4	60.9	41.2
14	73.3	40	22.6	24	26	26.2	30.4	43.1	58.2	68.6	45.7
15	80.8	40.4	22.3	23.9	26.8	26.8	32.2	42.4	53.7	62.7	41.4
16	85.8	52.9	22.5	24.3	27	26.2	33.2	44.9	57.7	72.8	47.2
17	75.8	43.3	22.3	23.9	28	28.4	38.2	52.8	64.5	74.1	51.8
18	82.1	42.9	22	23.8	26.6	26.4	33.5	44.2	58.4	72.7	48.7
19	82.9	41.3	23.5	24.8	27.1	26.9	32.4	39.8	54.8	61.8	45.1
20	90	29.6	25.2	26.6	29.6	27.4	32	39.1	50.3	57.7	37.8
21	99.2	6.7	25.7	27.1	29.2	25.7	31.6	38.6	49.2	58.8	39.8
22	99.2	3.8	26.9	27.9	29.1	26.9	31.6	36.9	43.3	52.8	34.2
23	99.6	1.3	25.6	26.9	28.3	25.6	31.3	35.1	40.6	48.4	32.9

February 2011

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Table 2-13. Median Hourly Noise Metrics at LAMR002 during 2009 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	94.6	0.8	24.7	25.4	26.8	25.8	28.5	30.9	36.2	42.1	30.8
1	100	0.4	25.0	25.8	27.0	≤ 25.0	29.0	32.4	36.1	44.8	30.7
2	99.6	0.0	25.2	26.0	27.1	25.2	29.2	31.9	36.6	41.1	30.5
3	99.6	0.0	25.1	26.2	27.5	25.1	29.1	31.6	35.8	40.0	30.8
4	94.2	0.0	25.3	26.6	27.4	27.0	29.3	31.5	36.5	40.6	30.7
5	100	0.4	25.7	26.5	27.8	25.7	29.9	32.7	41.6	57.1	33.5
6	94.6	7.9	26.1	27.1	28.1	27.5	30.3	41.9	55.8	63.7	43.0
7	97.9	5.4	26.7	27.5	28.7	27.5	32.6	43.8	58.0	66.6	45.0
8	96.3	7.9	25.4	26.6	28.0	26.9	31.8	42.8	59.7	67.8	46.5
9	82.9	7.5	24.4	25.3	27.1	27.0	31.3	41.8	59.5	68.5	46.6
10	80	14.2	23.4	24.3	26.6	26.6	30.3	42.5	61.7	68.7	47.9
11	69.2	13.8	21.1	22.8	24.9	25.8	29.3	41.4	58.6	68.8	46.4
12	64.6	15.4	21.7	22.8	25.1	25.7	29.7	42.2	59.3	69.7	46.7
13	68.8	21.3	21.1	22.1	24.4	25.5	31.3	43.8	59.7	68.3	46.2
14	73.3	40.0	21.3	22.0	25.1	25.5	30.7	42.4	61.4	69.2	46.8
15	80.8	40.4	21.1	22.5	25.4	25.4	33.8	47.1	61.9	73.4	49.6
16	85.8	52.9	22.0	23.1	25.3	24.7	34.8	49.8	61.0	73.8	50.5
17	75.8	43.3	22.7	23.5	27.0	27.7	33.9	52.4	66.3	82.8	55.8
18	82.1	42.9	21.7	23.1	26.3	26.0	36.7	51.8	67.8	80.0	59.5
19	82.9	41.3	22.7	23.9	25.7	25.6	31.6	40.3	56.1	66.3	43.8
20	90	29.6	23.9	24.4	25.6	25.1	29.5	36.0	51.4	61.8	38.7
21	99.2	6.7	24.1	25.4	26.4	24.1	28.8	35.4	50.8	61.1	38.4
22	99.2	3.8	24.9	25.6	26.3	24.9	28.4	35.1	46.0	58.9	36.1
23	99.6	1.3	24.2	25.0	26.5	24.2	28.3	32.8	40.1	45.6	32.7

February 2011

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Table 2-14. Median Hourly Noise Metrics at LAMR003 during 2009 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	87.5	20.0	23.1	23.9	26.2	25.3	28.8	31.8	36.8	44.3	30.4
1	90	17.1	23.0	24.0	25.4	24.9	27.9	30.7	34.7	41.0	28.7
2	88.8	13.3	22.5	23.3	24.4	24.0	27.2	31.0	34.8	43.8	28.2
3	94.2	15.4	22.5	23.4	24.7	23.9	27.1	31.4	35.2	41.1	28.9
4	100	17.9	23.2	24.5	26.1	≤ 23.2	28.1	31.9	36.4	41.5	30.1
5	100	2.9	23.9	25.0	26.2	≤ 23.9	28.7	31.8	36.5	41.2	30.2
6	100	10.0	25.1	26.0	27.1	≤ 25.1	29.4	32.4	35.7	40.9	30.6
7	100	2.5	26.3	27.3	28.9	≤ 26.3	31.0	35.0	40.1	50.8	33.7
8	100	16.7	28.1	29.1	30.4	≤ 28.1	32.8	36.4	45.6	54.4	36.3
9	100	28.3	30.7	31.5	33.0	≤ 30.7	35.8	38.9	47.3	56.2	38.5
10	97.5	40.0	28.6	29.6	31.7	29.6	34.6	39.5	49.4	59.1	40.0
11	90.8	45.4	24.3	25.8	27.9	27.2	32.3	40.3	51.9	67.9	46.4
12	83.3	36.3	22.9	23.8	25.5	25.3	30.9	40.4	53.5	68.0	44.6
13	88.8	44.2	23.7	25.1	26.8	26.0	32.6	41.4	55.1	67.2	42.3
14	89.2	47.5	23.8	25.1	28.7	27.5	32.8	42.4	56.1	70.5	48.4
15	87.5	50.8	25.1	26.6	27.8	27.2	32.8	43.8	58.0	74.3	48.2
16	80.4	48.3	24.6	26.0	29.2	29.2	33.4	44.7	57.3	70.9	47.3
17	87.1	54.2	24.3	25.8	28.5	27.6	32.8	43.8	53.7	72.2	47.4
18	98.8	63.3	23.8	25.4	28.4	25.4	31.8	39.6	55.0	68.8	43.4
19	97.9	55.0	22.8	23.9	26.7	23.9	31.8	38.0	45.6	54.8	37.3
20	97.5	41.3	24.1	25.2	27.1	25.2	30.9	35.9	46.0	57.3	36.8
21	100	36.7	24.5	25.5	27.9	≤ 24.5	30.9	35.9	44.0	52.8	36.0
22	100	35.4	25.0	26.0	28.2	≤ 25.0	31.2	35.5	41.2	51.7	33.8
23	91.3	6.7	23.9	25.0	26.8	26.0	29.4	32.4	37.6	46.4	31.0

February 2011

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Table 2-15. Median Hourly Noise Metrics at LAMR004 during 2009 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	87.5	20.0	25.8	27.0	28.6	28.1	31.5	35.8	41.1	47.4	34.1
1	90.0	17.1	25.0	26.2	28.3	27.5	31.7	35.6	39.8	45.0	33.0
2	88.8	13.3	23.9	25.1	27.0	26.4	30.6	34.8	38.9	44.4	32.3
3	94.2	15.4	24.7	25.6	28.1	26.5	31.1	34.9	38.9	43.1	33.0
4	100	17.9	25.2	26.8	29.1	≤ 25.2	32.4	36.3	39.3	43.9	34.1
5	100	2.9	25.5	27.2	29.8	≤ 25.5	32.8	36.4	39.3	44.9	33.9
6	100	10.0	27.7	28.9	30.8	≤ 27.7	33.5	36.3	40.8	45.7	34.6
7	100	2.5	29.7	31.1	32.5	≤ 29.7	35.1	38.3	43.2	49.9	36.5
8	100	16.7	31.4	32.7	34.6	≤ 31.4	37.8	40.9	45.5	54.7	38.8
9	100	28.3	32.7	33.8	35.9	≤ 32.7	39.7	43.2	48.9	55.3	41.0
10	97.5	40.0	30.5	32.4	34.3	32.4	38.4	44.1	51.8	62.3	43.3
11	90.8	45.4	28.6	29.3	32.3	31.1	36.6	43.1	50.2	59.2	41.1
12	83.3	36.3	28.1	29.2	30.9	30.6	35.0	42.9	52.4	59.3	41.1
13	88.8	44.2	27.5	29.4	31.0	30.5	35.1	43.2	55.3	66.7	45.2
14	89.2	47.5	28.9	30.1	32.2	31.5	36.9	44.9	54.0	63.6	42.5
15	87.5	50.8	30.6	31.9	34.6	33.8	39.6	48.5	56.5	66.8	45.0
16	80.4	48.3	28.8	30.8	33.1	33.1	36.7	45.9	57.0	67.6	46.8
17	87.1	54.2	28.9	30.3	32.8	32.0	38.7	47.0	56.1	63.7	44.9
18	98.8	63.3	28.8	30.1	31.8	30.1	37.7	44.6	53.3	62.6	41.7
19	97.9	55.0	27.4	29.1	32.1	29.1	37.0	42.6	51.7	62.3	42.0
20	97.5	41.3	26.8	28.2	30.5	28.2	34.5	40.0	48.7	57.0	38.6
21	100	36.7	27.7	28.9	31.0	≤ 27.7	34.5	38.8	44.3	52.6	36.6
22	100	35.4	27.3	28.3	30.3	≤ 27.3	33.7	38.1	44.3	52.3	35.9
23	91.3	6.7	25.8	26.9	29.2	28.4	31.9	36.0	40.6	47.9	33.7

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Table 2-16. Median Hourly Noise Metrics at LAMR005 during 2009 Campaign

Hour	Non-Nat	ORV	Lmin	L99	L90	Lnat	L50	L10	L01	Lmax	Leq
	%	%	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA	dBA
0	87.5	20.0	26.9	28.5	32.9	31.6	37.5	42.7	47.8	57.9	40.7
1	90.0	17.1	26.3	27.6	31.1	29.1	37.5	43.2	47.5	54.4	40.2
2	88.8	13.3	25.0	26.4	29.2	28.1	35.7	41.0	46.9	54.3	38.4
3	94.2	15.4	25.0	26.5	29.7	27.0	35.4	40.6	44.3	49.0	37.6
4	100	17.9	27.7	29.4	33.8	≤ 27.7	37.3	42.0	46.4	52.5	40.2
5	100	2.9	28.9	31.2	34.2	≤ 28.9	38.7	42.4	45.7	50.7	40.0
6	100	10.0	31.6	33.5	36.4	≤ 31.6	40.6	44.4	47.3	51.4	42.1
7	100	2.5	34.1	35.1	36.7	≤ 34.1	40.5	43.9	47.6	52.1	42.0
8	100	16.7	36.6	37.7	39.8	≤ 36.6	42.4	45.8	50.1	59.4	44.6
9	100	28.3	34.9	36.3	39.1	≤ 34.9	41.8	46.1	54.4	72.4	48.4
10	97.5	40.0	32.6	34.3	36.4	34.3	40.5	50.2	65.2	80.5	55.3
11	90.8	45.4	31.2	32.4	34.2	33.5	37.8	46.8	63.0	78.2	52.7
12	83.3	36.3	30.0	31.6	33.8	33.5	39.3	50.1	63.8	87.3	58.1
13	88.8	44.2	30.3	31.9	33.8	33.3	39.4	54.4	69.9	89.1	62.7
14	89.2	47.5	28.1	32.2	33.9	33.2	41.2	58.9	72.0	94.1	65.8
15	87.5	50.8	30.0	32.0	34.9	34.0	41.0	56.1	72.2	93.6	63.1
16	80.4	48.3	30.2	32.0	34.6	34.6	44.7	58.3	71.0	91.1	61.7
17	87.1	54.2	28.4	30.0	33.2	32.2	40.8	54.9	71.5	89.4	61.2
18	98.8	63.3	29.1	31.5	34.2	31.5	40.1	50.5	68.4	85.1	58.9
19	97.9	55.0	30.2	32.3	35.3	32.3	40.9	52.3	67.0	84.8	57.6
20	97.5	41.3	30.3	31.7	34.1	31.7	39.2	47.0	57.8	73.1	47.6
21	100	36.7	31.7	33.2	35.5	≤ 31.7	40.3	44.7	57.4	75.4	50.9
22	100	35.4	29.1	30.1	33.3	≤ 29.1	39.2	45.0	53.6	67.5	47.9
23	91.3	6.7	27.6	29.0	32.7	30.8	38.0	43.7	48.4	57.2	41.4

3 Composite Source Creation

In order to model the noise emissions from a source it must first be characterized. Characterizing a noise source means quantifying the spectra emitted from the source as a function of angle about it. In the case of vehicles, it is convenient to define the angle from the front to the rear, in the plane of the road, and assumes that noise is axisymmetric. For the characterization made here, a one-third octave band spectrum was specified for every ten degrees from the front of the vehicle to the rear. The spectrum at each angle represents the noise emissions from the vehicle's center to a fixed distance at that angle. The air absorption that normally attenuates the levels as a function of frequency for that distance is not removed; thus, the noise characterization is a free-field noise representation of the vehicle with only geometric spreading removed from the spectral levels to the reference distance.

The creation of a composite source for modeling noise emissions by Off-Road Vehicles (ORVs) at Lake Meredith National Recreation Area (LAMR) was necessary due to the variety of vehicles present. A subset of the types of vehicles operating at LAMR during the measurements for this report is shown in Figure 3-1. A spectral noise recorder was located 20 feet from the road centerline just inside the LAMR entrance to the Rosita ORV area. Because the noise monitor was equipped to record the microphone signal simultaneously with spectra, the data from that noise monitor could be used to identify the general class of vehicle driving by it. Vehicles identified by listening to the records used to create the composite ORV source were all terrain vehicles (ATVs), motorcycles (both two and four stroke engine types), and four-wheel vehicles as depicted in Figure 3-1. By far, the majority of vehicles entering the park were of the last category.



Figure 3-1. Collage of ORV's Incorporated into the Composite Source

An example A-weighted time history from the noise monitor can be seen in Figure 3-2. Each of the peaks represents the maximum A-weighted level received at the monitor for a vehicle driving by on the road. Vertical, black lines in the figure are on either side of a peak that was identified as an ORV. After listening to the recording to identify what type of vehicle corresponds to each peak in the time history and verify that there is no other noise contaminating the record at that time, the spectrum for each peak is written to a file with a note of the time and vehicle type. By using the spectrum at that time and assuming it was emitted from the vehicle at the closest

point of approach (CPA) that spectrum can be used along with the meteorological conditions to create a composite noise source.

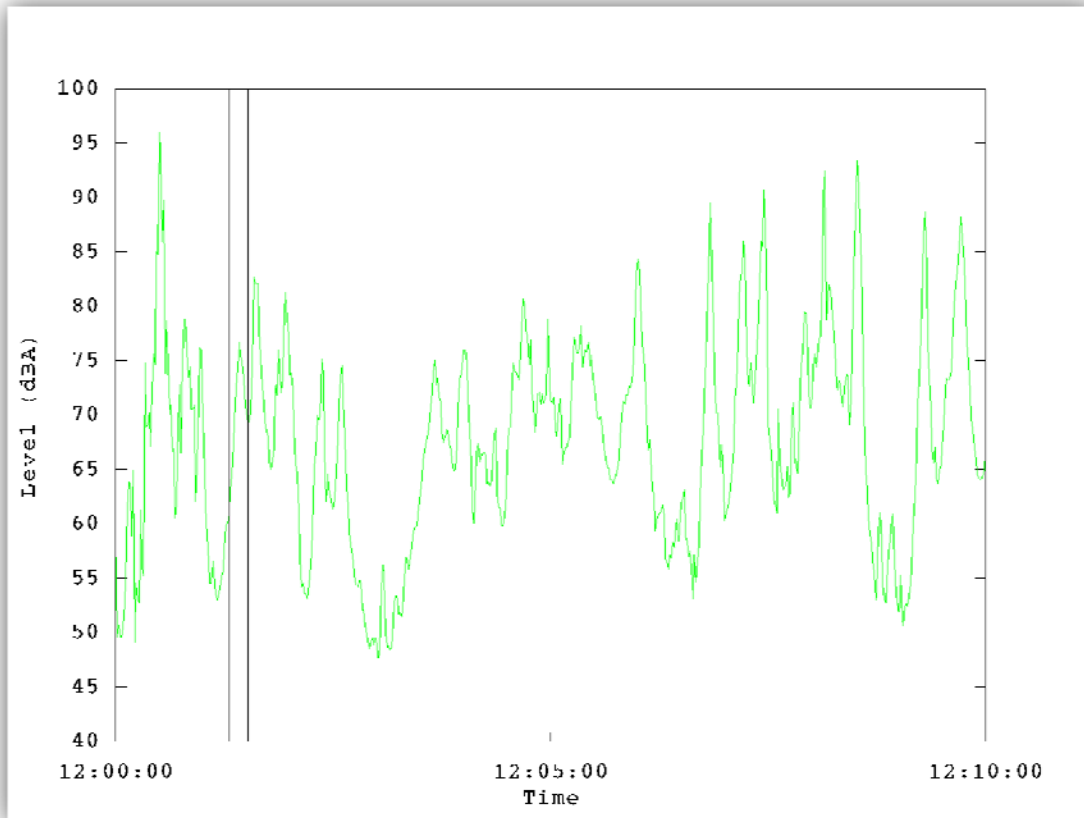


Figure 3-2. Representative A-weighted Time History at LAMR005 during Sand Drags

To create a composite spectrum of the ORVs that drove by the monitor at the Rosita entrance to LAMR, air absorption for the meteorological conditions according to ANSI S1.26-1995(R2009) was added back into each of the spectra mentioned above. The additional correction to the spectra was for spherical spreading to the reference distance expected by the noise model. In this case, the noise model used, NMSim, expects levels in a source file to represent the source at a distance of 1000 feet. Because the CPA of the measurements was 20 feet a value of $20 \log_{10}(1000/20)$ was subtracted from each band in the captured spectra to normalize the composite source to a representative noise sphere with 1000 ft radius. Because of the variety of vehicles with their different heights were measured, no attempt was made to remove the ground effect from the measured data.

The distribution of measured levels at the CPA of drive by can be seen in Figure 3-3. The distribution of levels gives confidence that the mean spectra will be representative of those recorded. In order to create the composite source for use in NMSim, the corrected spectra were averaged together and written to a text file of the format expected by NMSim. The average of the measured spectra at the CPA of ORV pass-bys is shown in Figure 3-4. The levels in Figure 3-4 were corrected to the source files as noted above. The average spectrum represents the noise emission of a composite ORV. It was made without any information on the operating state (engine RPM, acceleration, etc) of the individual vehicles; therefore, it will be used to represent all four-wheel drive ORVs in the park regardless of their operating state. It is important to note that the same spectrum is assigned to all angles in the source file; thus, it is modeled as an omni-directional source.

February 2011

Prepared for National Park Service

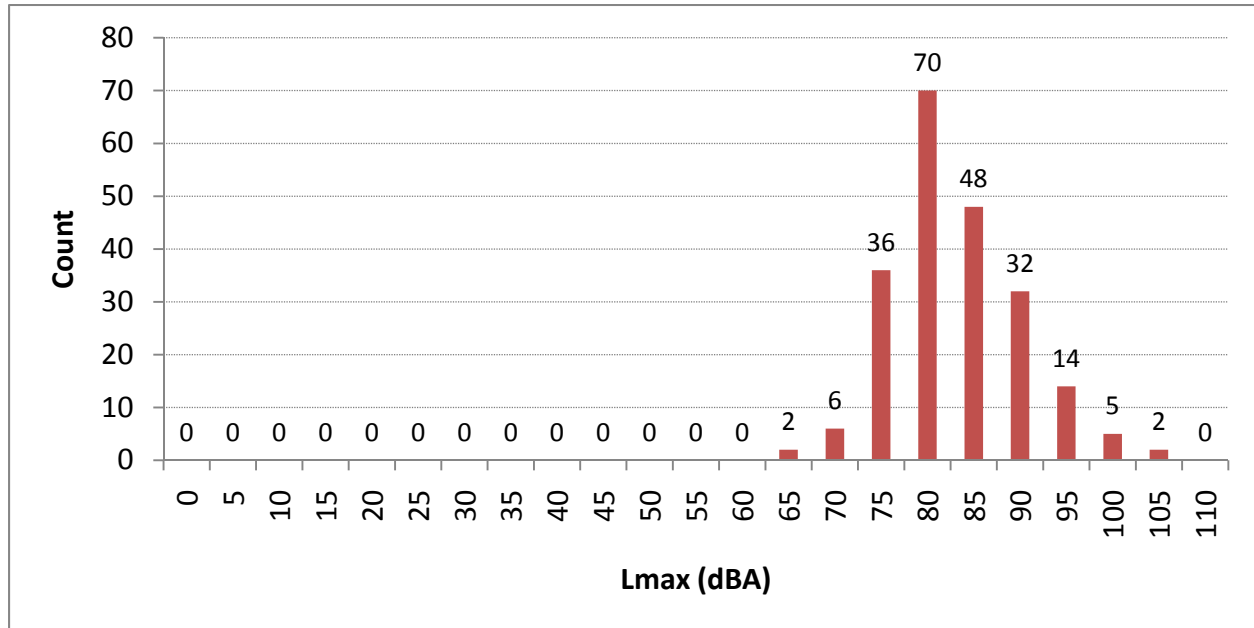


Figure 3-3. Distribution of Maximum Sound Levels for ORV Pass-bys Incorporated into Composite Source

NMSim needs sources characterized at two operating conditions. The file ORVCmp15.src represents the mean source noise of ORVs at LAMR. It lists two .avg files with the spectral content for two different speeds. Since emission levels were measured at a single speed, the two .avg files contain the same spectra.

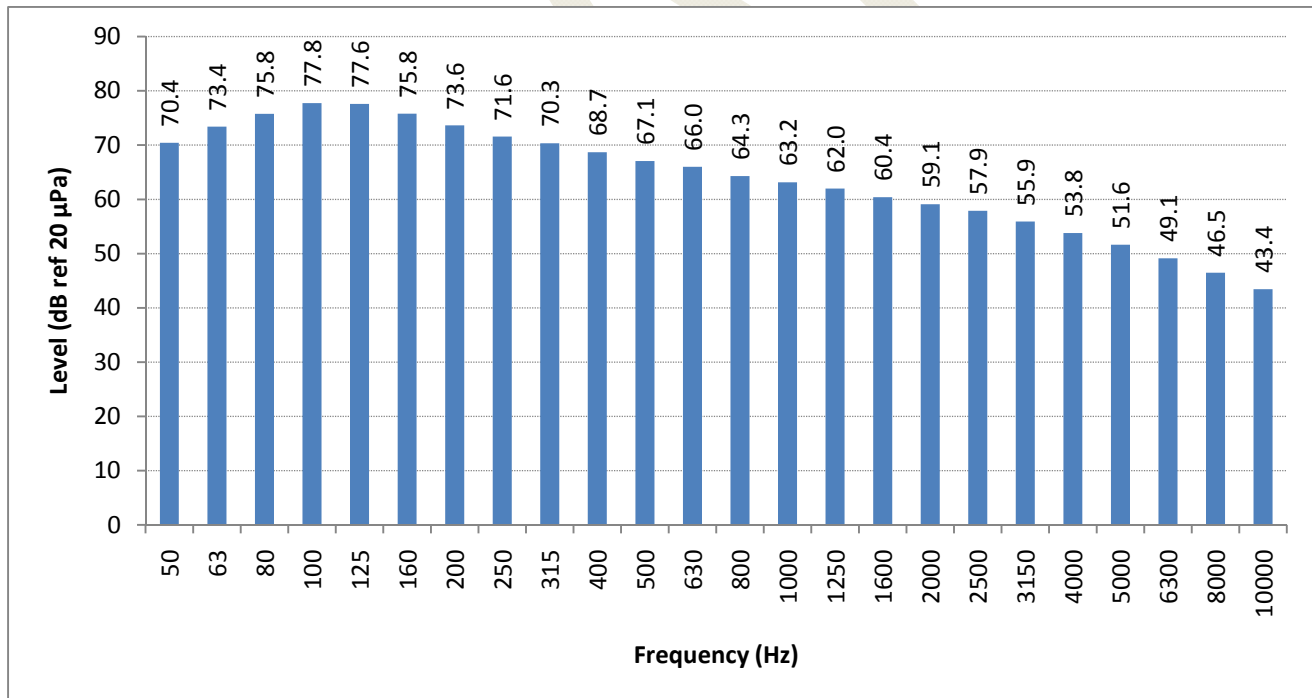


Figure 3-4. Composite Source Average Measured Spectra Sound Level at Closest Point of Approach

In order to see the effects of potential ORVs at LAMR, a source was created which represents the average noise level plus one standard deviation of the levels measured above shown in Figure 3-5. To create the source, the difference between the average A-weighted Lmax and the average plus one standard deviation of those measured

was added to each band in the spectrum of the composite source. This source file is labeled ORVsigm1 and has two avg files with the same spectral content at different speeds as was done for the average composite source.

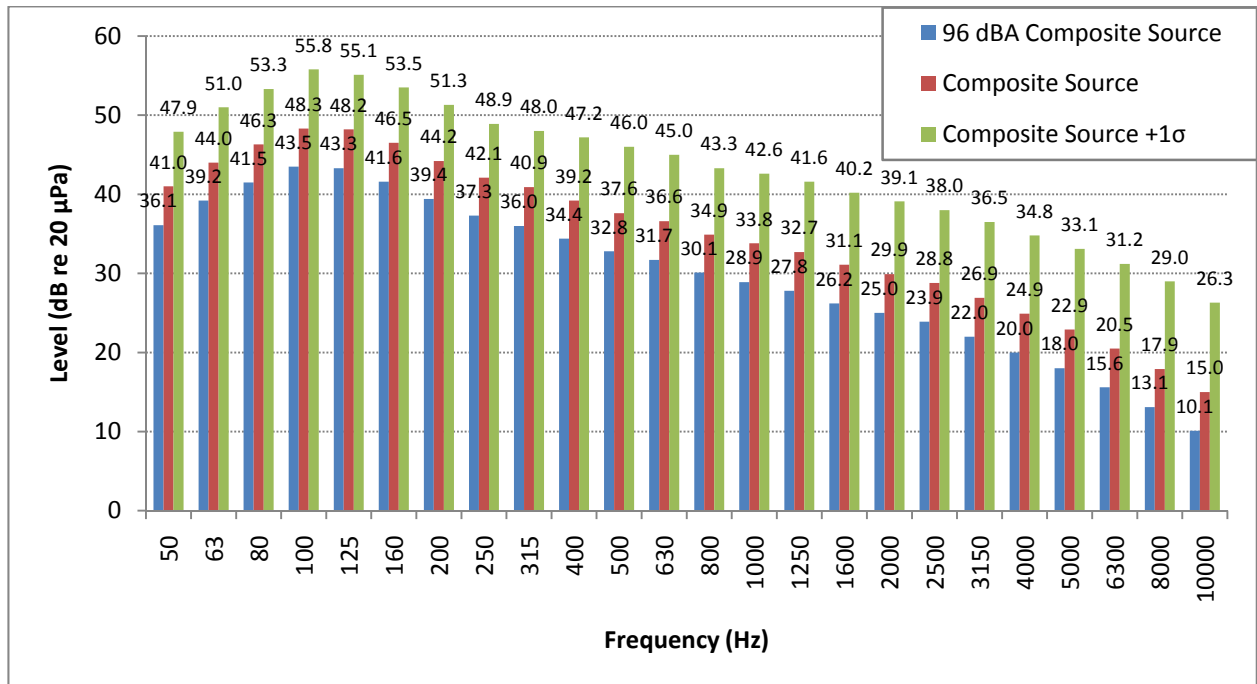


Figure 3-5. Composite Source Measured Spectra Sound Level for 1000 ft Reference Sphere

Several of the action alternatives require that ORVs comply with the 96 dB emission test according to SAE J1287. To create a source for use in NMSim that represents an ORV that complies with SAE J1287 the spectrum representing the average composite ORV measured above was reduced by an amount such that the A-weighted level 0.5 m from the source was 96 dB. The file for this source is labeled ORVcmp96. As was done for the other two sources, the ORVcmp96 file lists two avg files with the same spectrum and different speeds.

4 Modeling Alternatives

The ORV impact was determined by the modeling in NMSim. The National Park Service delivered to Wyle the trails and areas inside LAMR for modeling ORV noise. The data was provided as ArcGIS files. Individual polygons representing the areas of ORV operation were exported to ASCII files containing UTM coordinates for all vertices of the polygon. Trails were exported to ASCII files containing UTM coordinates at sufficient spacing to represent them. UTM zone 14 referenced to WGS84 spheroid was used for all coordinates in this report.

The sources modeled were the ORV composite sources as detailed above. Three versions of modified ORVs were modeled. Their creation was discussed above, and they are reiterated here: the average ORV measured, the average plus one standard deviation, and the 96 dB limited version. They will be referred to as sources for the remainder of this chapter and identified as average, sigma, and 96 dB, respectively.

As an example of the processing done to model source noise at LAMR consider the map in Figure 4-1 representing the ORV areas and trails for Rosita Alternative D. Each trail is numbered and each area color coded to allow for easy tracking through the modeling process. The area in yellow at the left side of the figure contains the entrance to Rosita and is designated for ORV use anywhere inside the area without running over vegetation. That area was exported to an ASCII file which is displayed in Figure 4-2 which has the coordinates of the 11 vertices of the polygon representing the area. This file was prepared for use in NMSim's ground track building program and imported for processing into a track file to be used in the modeling. All trails and area perimeters were processed

by NMSim's ground track builder to create track files of a source moving at 15 mph, 1 m above the ground. The perimeter of the yellow area in Figure 4-1 was processed to create the track file which can be seen in part in Figure 4-3. The coordinates in the file represent the source location every 2 seconds while traveling on the perimeter of the area at 15 mph. Where necessary the resulting tracks were broken up into smaller pieces to facilitate processing. The time resolution of 2 seconds was chosen because a source moving at 15 mph will cover 13.4 m in 2 seconds. The grid resolution used in the NMSim modeling of LAMR was 100 m; therefore, the time resolution is adequate to fill in the calculation grid. The resolution of the vehicle path is significantly higher than the receiver grid spacing, which prevents aliasing.

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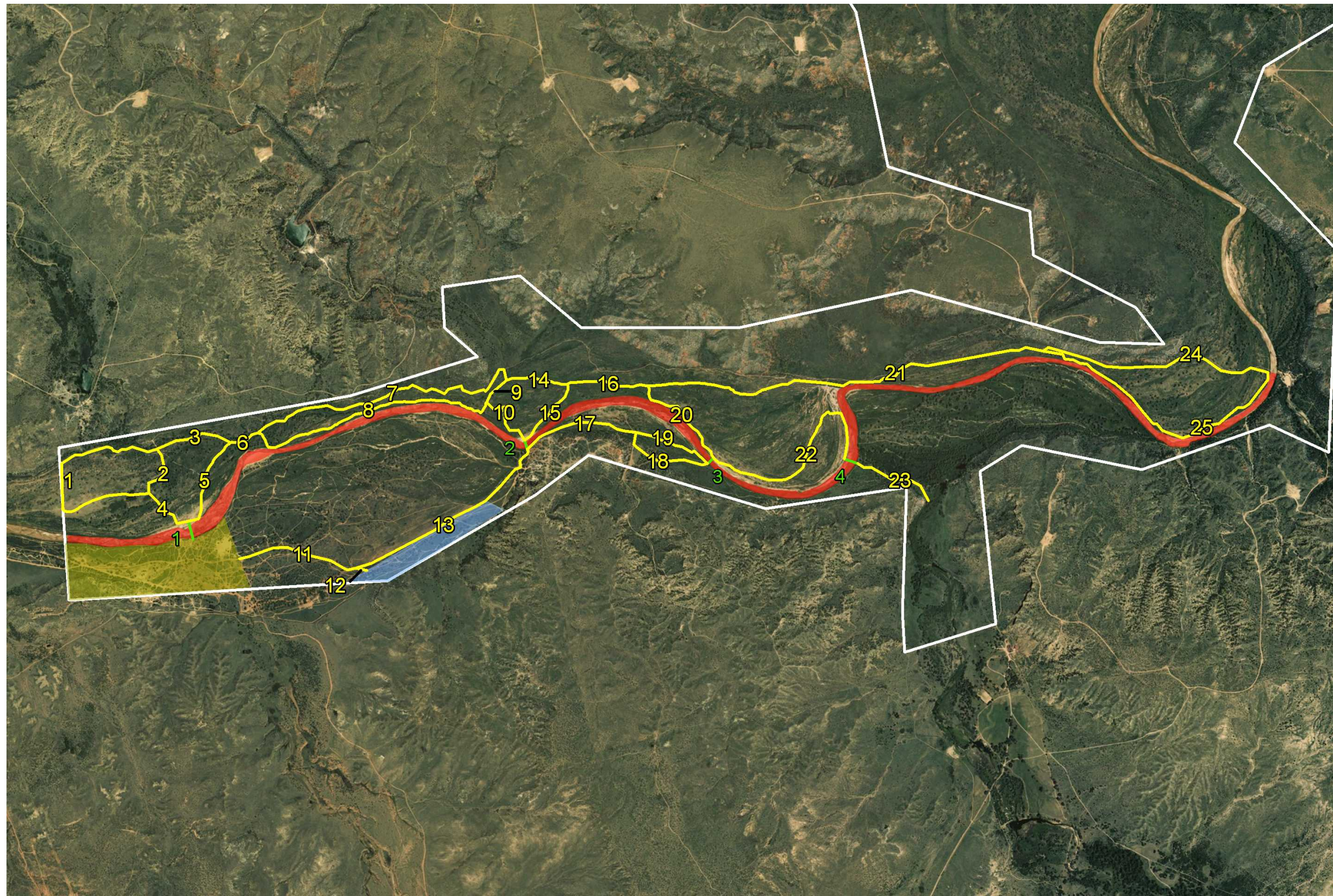


Figure 4-1. Modeled ORV Trails in Rosita

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	Easting	Northing
01	242181.788639904	3928744.67277193
02	242353.260489441	3928266.2071684
03	241141.98407575	3928179.1484354
04	241114.363408512	3928566.26520767
05	241252.863293621	3928562.26141387
06	241390.776304359	3928537.94422608
07	241574.182794706	3928552.98088183
08	241723.762451767	3928548.66457652
09	241874.903965982	3928598.52547266
10	241974.623046771	3928595.65097994
11	242115.267412802	3928666.15063355
12	242181.788639904	3928744.67277193

Figure 4-2. Vertices of Area Near Entrance to Rosita (Shaded Yellow in Figure 4-1)

Flight track trajectory variable description:									
time - time in seconds from the reference time									
Xpos - x coordinate (UTM)									
Ypos - y coordinate (UTM)									
UTM Zone 14									
Zpos - z coordinate in meters MSL									
heading - aircraft compass bearing in degrees									
climbANG - aircraft climb angle in degrees									
vel - aircraft velocity in knots									
power - % engine power									
roll - bank angle (right wing down), degrees									
FLIGHT xxx									
TEMP. 59.0									
Humid. 70.0									
	time(s)	Xpos	Ypos	Zpos	heading	climbANG	Vel	power	rol
	0.000	242182.000	3928745.000	913.000	90.000	0.000	6.706	1.000	0.000
	2.000	242186.516	3928732.250	913.000	160.354	0.000	13.035	0.000	0.000
	4.000	242191.031	3928719.500	913.000	160.354	0.000	13.035	0.000	0.000
	6.000	242195.547	3928706.750	913.000	160.354	0.000	13.035	0.000	0.000
	8.000	242200.062	3928694.000	913.000	160.354	0.000	13.035	0.000	0.000
	10.000	242204.578	3928681.250	913.000	160.354	0.000	13.035	0.000	0.000
	12.000	242209.094	3928668.500	913.000	160.354	0.000	13.035	0.000	0.000
	14.000	242213.609	3928655.750	913.000	160.354	0.000	13.035	0.000	0.000

Figure 4-3. Track Profile of Area Near Entrance to Rosita (Shaded Yellow in Figure 4-1)

Wyle personnel found that the fastest speeds an ORV might obtain at LAMR were around 30 mph on the most wide open trails available and believe that a more realistic speed on the average trail is 15 mph. Without a more definitive measure, this speed was used as a placeholder and should be updated if time-dependent metrics are used for future analysis.

The metric chosen for modeling is the A-weighted Lmax. This was done because no operations data was provided. The comparison of different restrictions on operating areas and vehicle sound emissions are the focus of the present analysis; therefore, it was decided to run one operation of the modeled source on each of the trails and area perimeters in order to see the changes to the contours in and around the ORV areas for the various alternatives. Modeled results for each alternative are shown as contours on a map. In order to compare results for alternatives the area of the contours were calculated for specific levels.

If ORVs have unrestricted operation inside an area, then the A-weighted Lmax anywhere inside that area were set to the maximum level measured for a particular source. The Lmax for each of the three sources modeled in this study are listed in Table 4-1. These levels represent the composite source at 6 m from the source similar to the vehicles as measured near the entrance to Rosita.

Table 4-1. A-weighted Maximum Noise Level for Composite Sources

Composite Source	Lmax (dBA)
Average	80.1
Sigma	88.3
96 dBA limited	75.2

4.1 Alternative A

Blue Creek

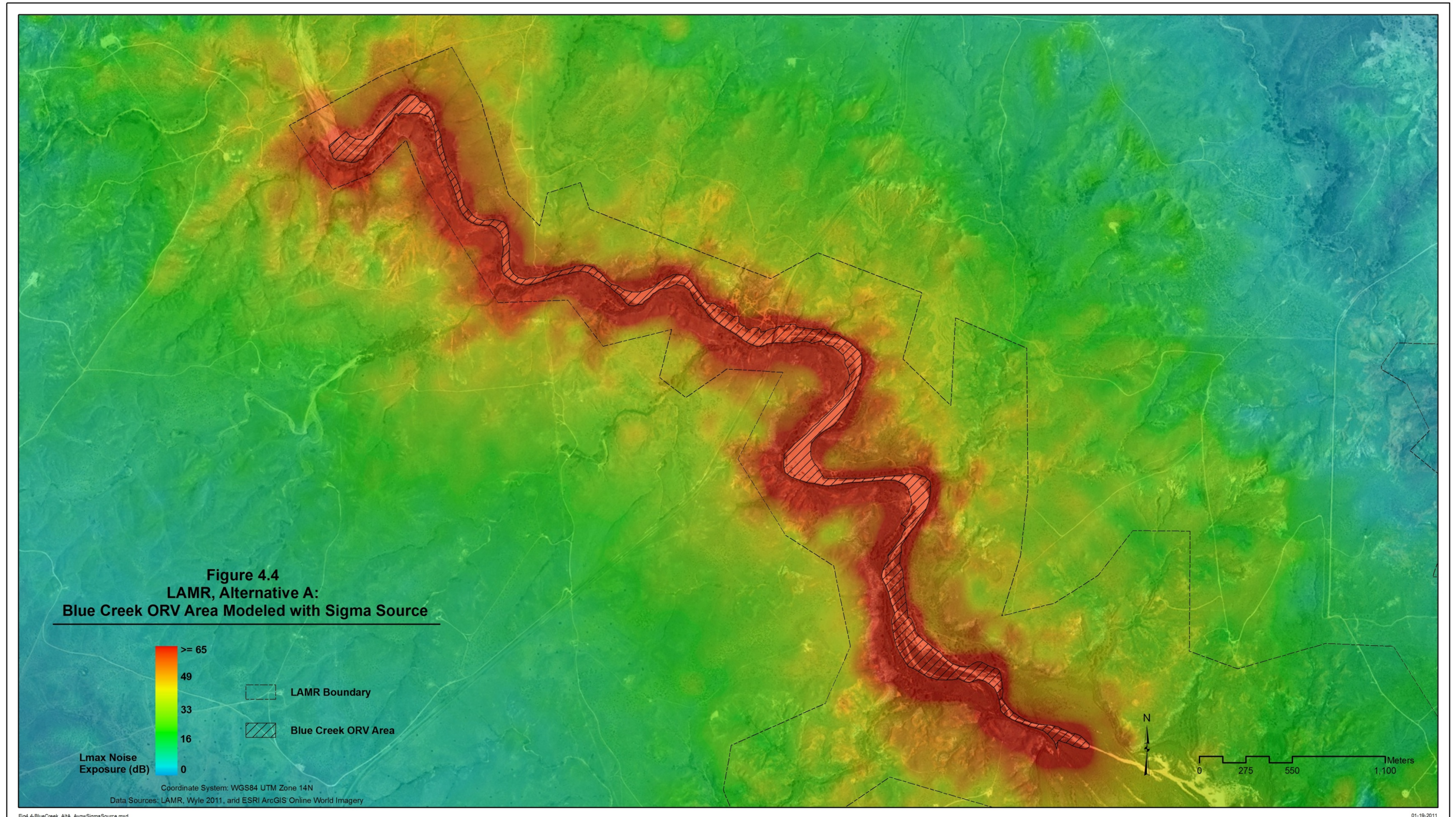
Under Alternative A, ORVs are allowed to operate in the cross hatch filled area in Figure 4.4. This area is the cutbank to cutbank. As discussed above, the modeling of this area was done by creating a track around the perimeter of the area and filling in the area with the measured Lmax. The sources to model are the average and the sigma. While the average is what is most representative of operating vehicles in the park, the sigma source provides a look at the difference between the upper end of what was measured and the average. Figure 4.4 shows the area modeled with the sigma source. Figure 4.5 shows the area modeled with the average source. The contour areas were calculated and can be found in Table 4.2.

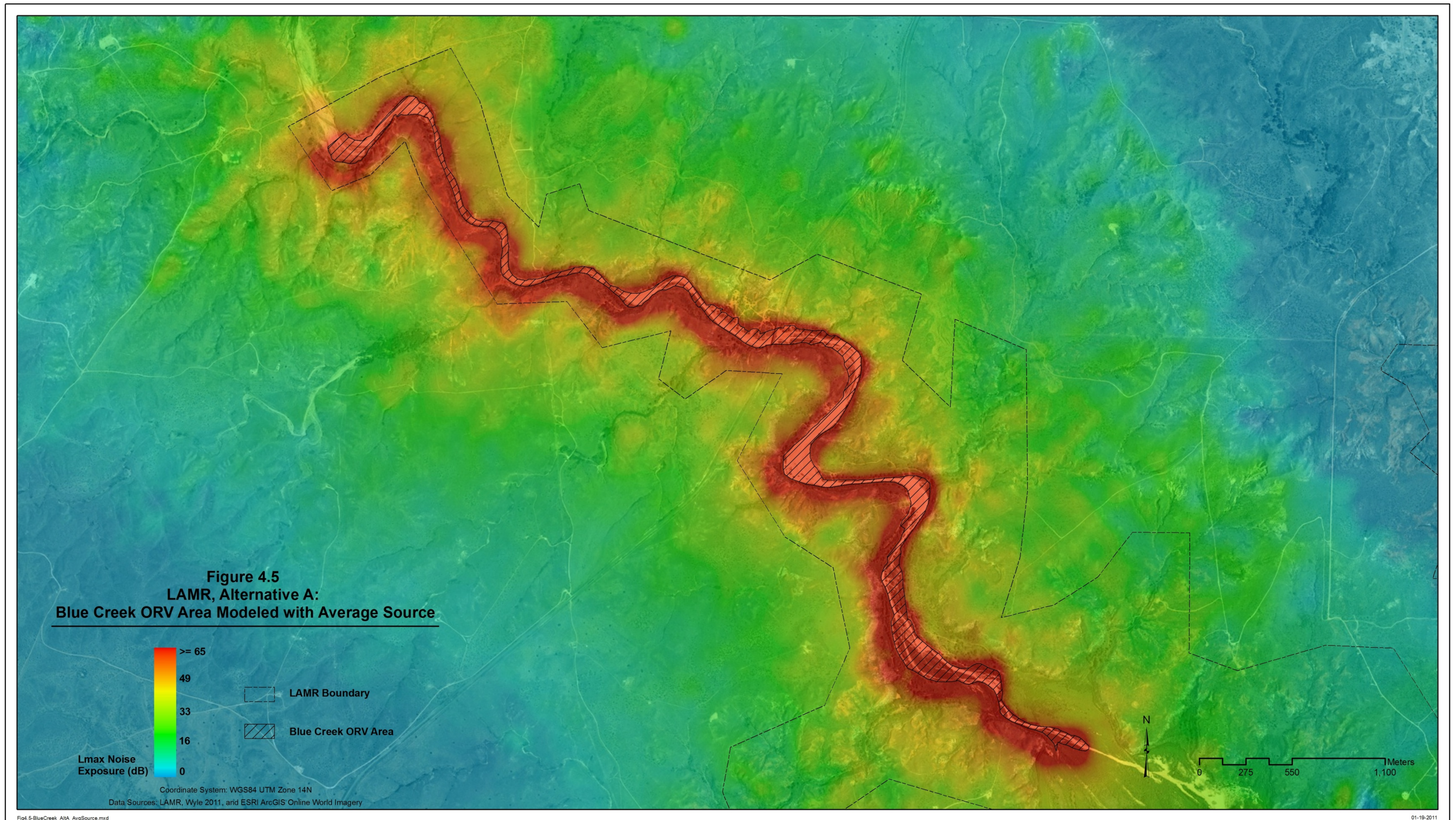
Table 4-2. Area Within Lmax Noise Contours, Units in Hectares

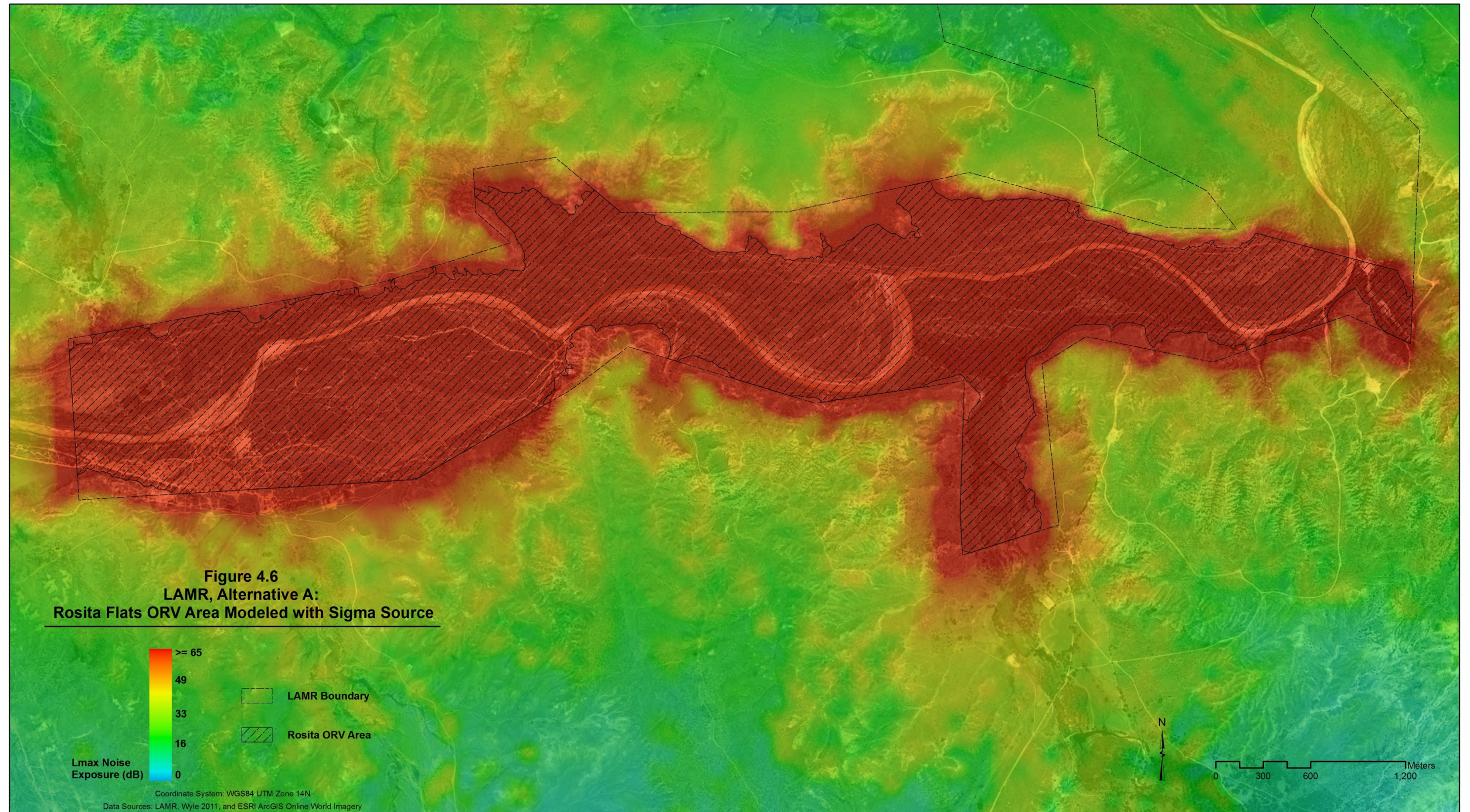
Noise Source	ORV Area	Modeling Alternative	Lmax Contour Level (dBA)											
			20	25	30	35	40	45	50	55	60	65	70	75
Average	Blue Creek	A	2505	1765	1255	938	702	539	403	297	213	160	100	45
Average	Rosita	A	4691	3646	2812	2249	1808	1518	1305	1143	1037	966	903	846
Sigma	Blue Creek	A	3920	2830	2096	1491	1077	823	618	482	354	257	190	139
Sigma	Rosita	A	7127	5251	4093	3188	2520	2015	1654	1423	1232	1094	1004	940
96 dB	Blue Creek	B	1802	1281	957	721	547	417	316	235	184	141	95	52
96 dB	Blue Creek	C	1855	1326	989	741	563	432	327	250	198	154	107	64
96 dB	Rosita	C	3018	2332	1828	1438	1191	948	731	571	456	329	218	127
96 dB	Rosita	D	3018	2331	1827	1438	1191	942	725	566	451	324	214	123

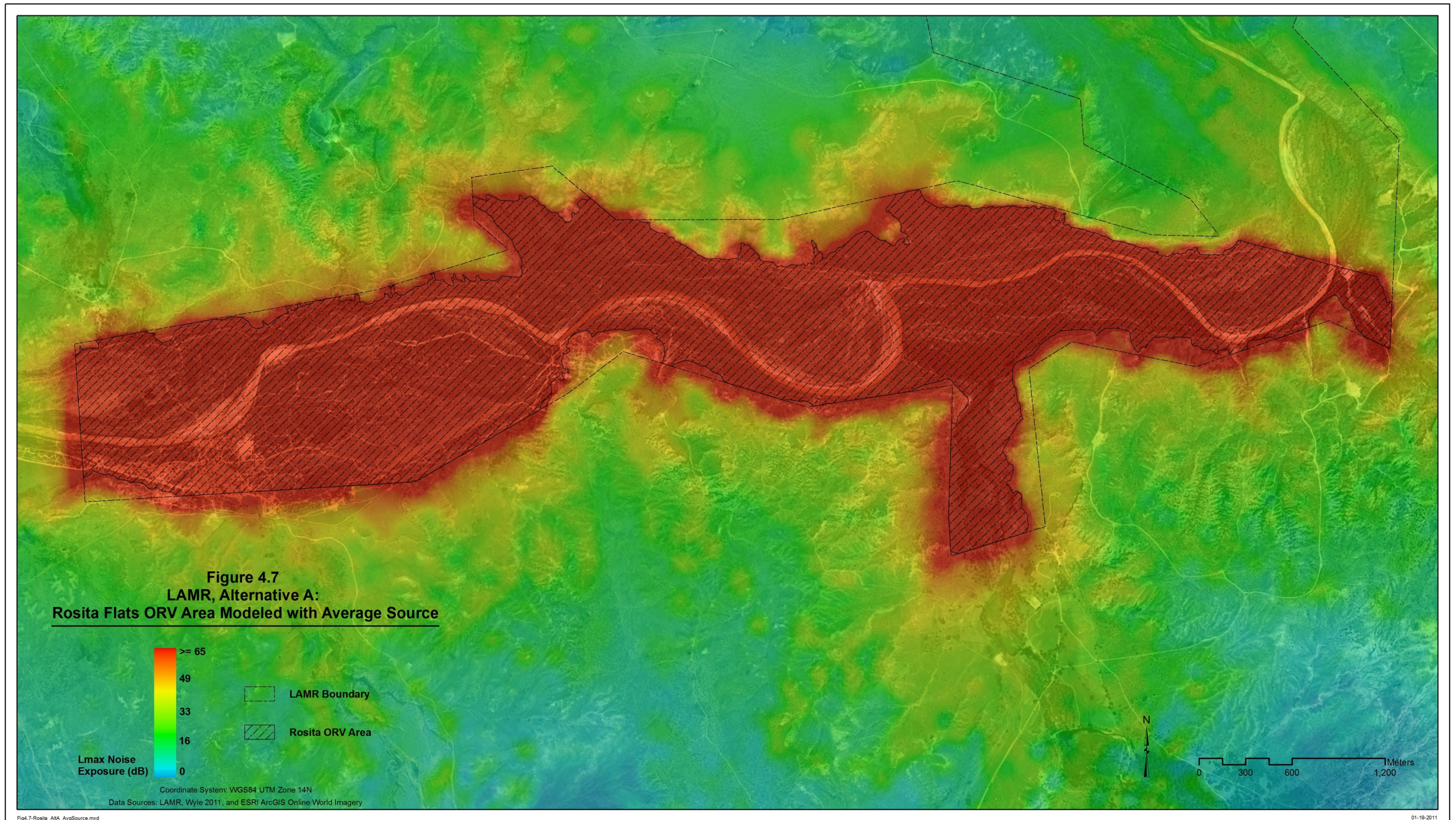
Rosita

Under Alternative A, ORVs are allowed to operate below the 3000' elevation contour. The 3000' elevation contour is shown Figure 4.6 as the perimeter of the ORV area. Where the ORV area boundary intersects the 3000' elevation contour the boundary is the perimeter of the area. As mentioned above, the fact that ORVs are allowed to operate anywhere within the area necessitates assigning the measured Lmax level to all of the area; thus, it is the effect outside the area of ORV operation that is displayed here. The sources to model are the average and the sigma. While the average is what is most representative of operating vehicle in the park, the sigma source provides a look at the difference between the upper end of what was measured and the average. Figure 4.6 shows the contours resulting from modeling the sigma source on the perimeter of the operating area. Figure 4.7 show the contours resulting from modeling the average source on the perimeter of the operating area. The contour areas were calculated and can be found in Table 4.2.









4.2 Alternative B

Blue Creek

Under Alternative B, ORVs are allowed to operate in the cross hatch filled area in Figure 4-8 as well as on the ORV routes. The additional restriction for Alternative B is that the ORVs will meet the muffler requirements of 96 dB as measured by SAE J1287. The source to model on the three ORV routes and the perimeter of the area is the 96 dB source. The interior of the ORV area is assigned the measured Lmax level for the 96 dB source. Figure 4-8 shows the resulting contours. The contour areas were calculated and can be found in Table 4-2.

Rosita

Under Alternative B the Rosita Flats area would no longer be part of LAMR; thus, no modeling is done for this alternative.

4.3 Alternative C

Blue Creek

Under Alternative C, ORVs are allowed to operate in the cross hatch filled area in Figure 4-9 as well as on the ORV routes and in the five camping zones. Because the ORVs may operate anywhere in the camping zones and the modeling done here is independent of the operating state of the vehicle the camping zones are modeled in the same way as the ORV area. As with Alternative B, ORVs will meet the muffler requirements of 96 dB as measured by SAE J1287. The source to model on the three ORV routes and the perimeter of the areas is the 96 dB source. The interior of the ORV area is assigned the measured Lmax level for the 96 dB source. Figure 4-9 shows the resulting contours. The contour areas were calculated and can be found in Table 4-2.

Rosita

Under Alternative C, ORVs are allowed to operate in the cross hatch filled area in Figure 4-10 which is the river bottom. They are also allowed to operate in the Beginner Zone, the Camping Zone and the ORV Use Area, and on the ORV Routes shown in the figure. Under alternative C ORVs will meet the muffler requirements of 96 dB as measured by SAE J1287; thus, the source modeled to create the contours in Figure 4-10 was the 96 dB source. The contour areas were calculated and can be found in Table 4-2.

4.4 Alternative D

Blue Creek

Under Alternative D, ORVs are allowed to operate in the same areas as Alternative C and have the same muffler requirements; therefore, there is no difference in the Lmax contours.

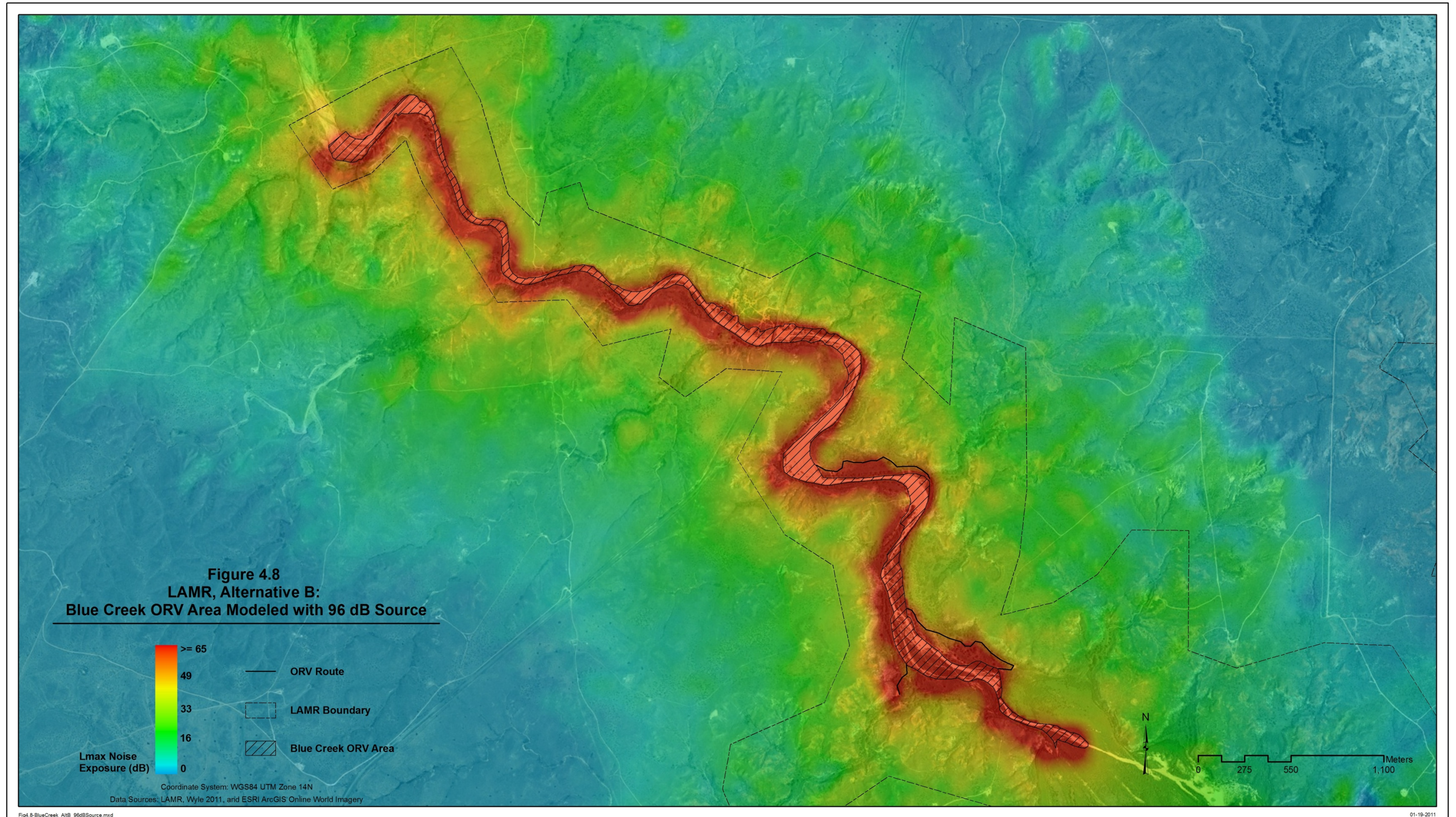
Rosita

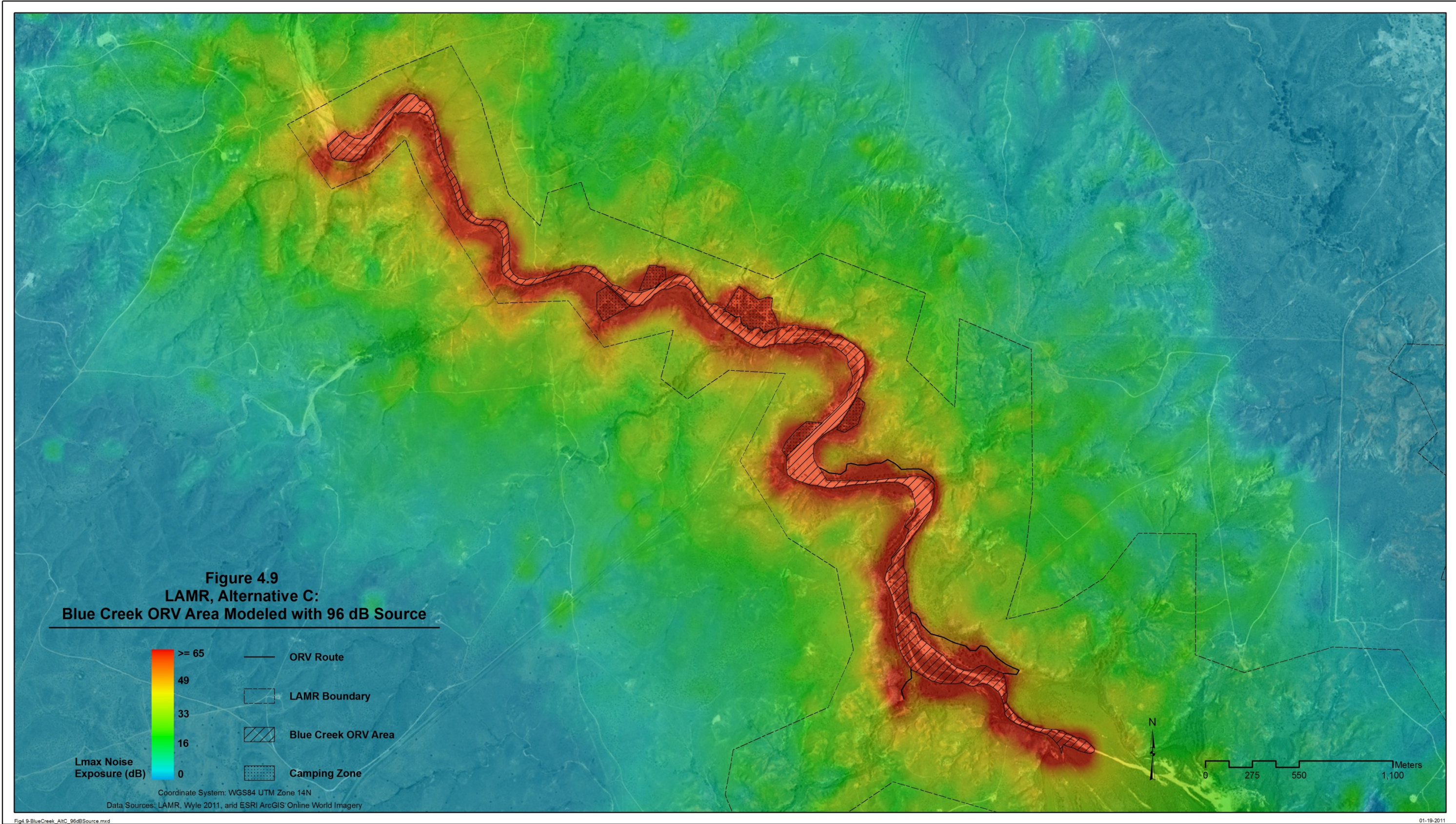
The only difference between Alternatives C and D in Rosita is the absence of a Beginner Zone. Figure 4-11 shows the contours and Table 4-2 shows the areas.

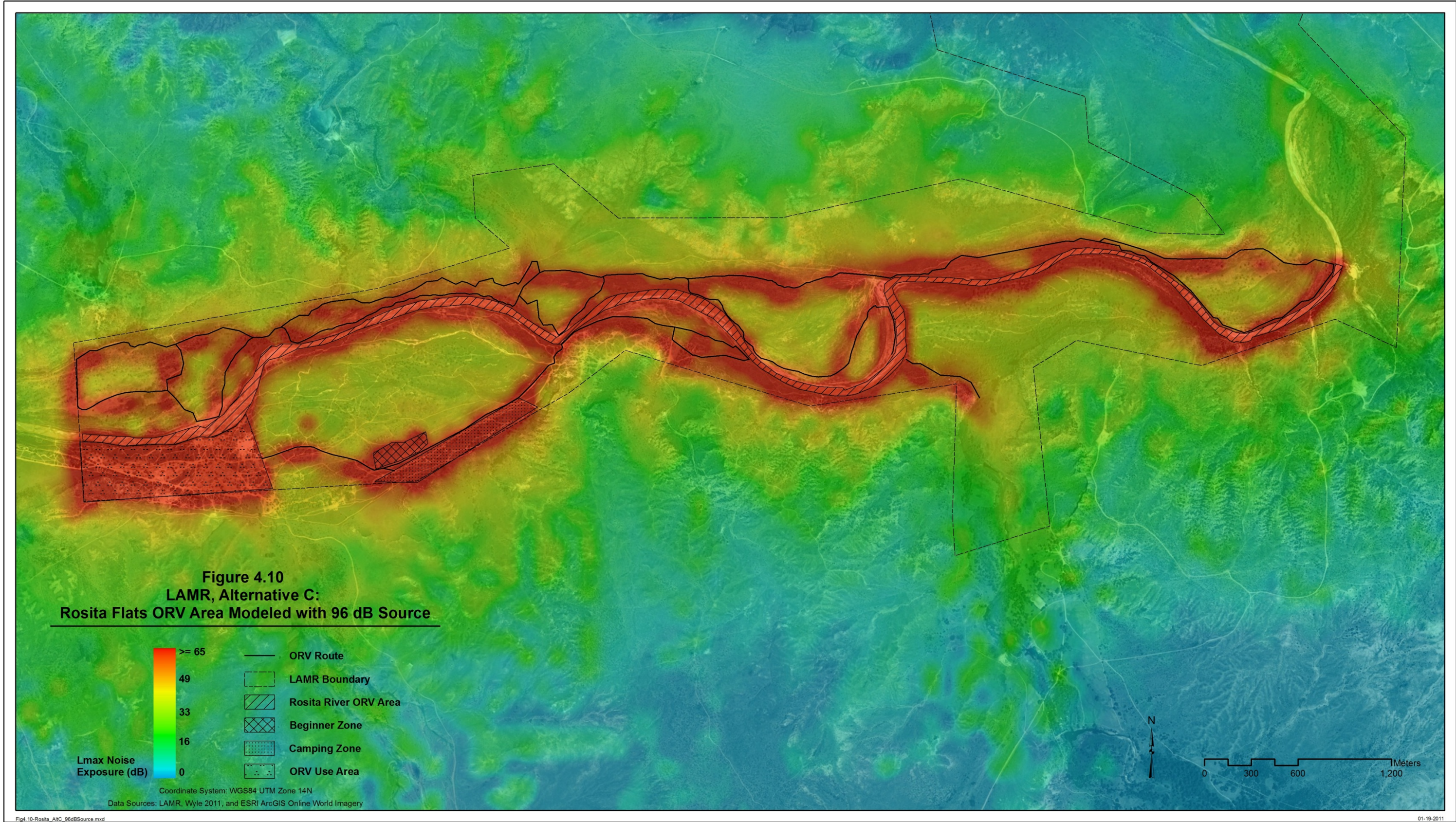
4.5 Contour Areas

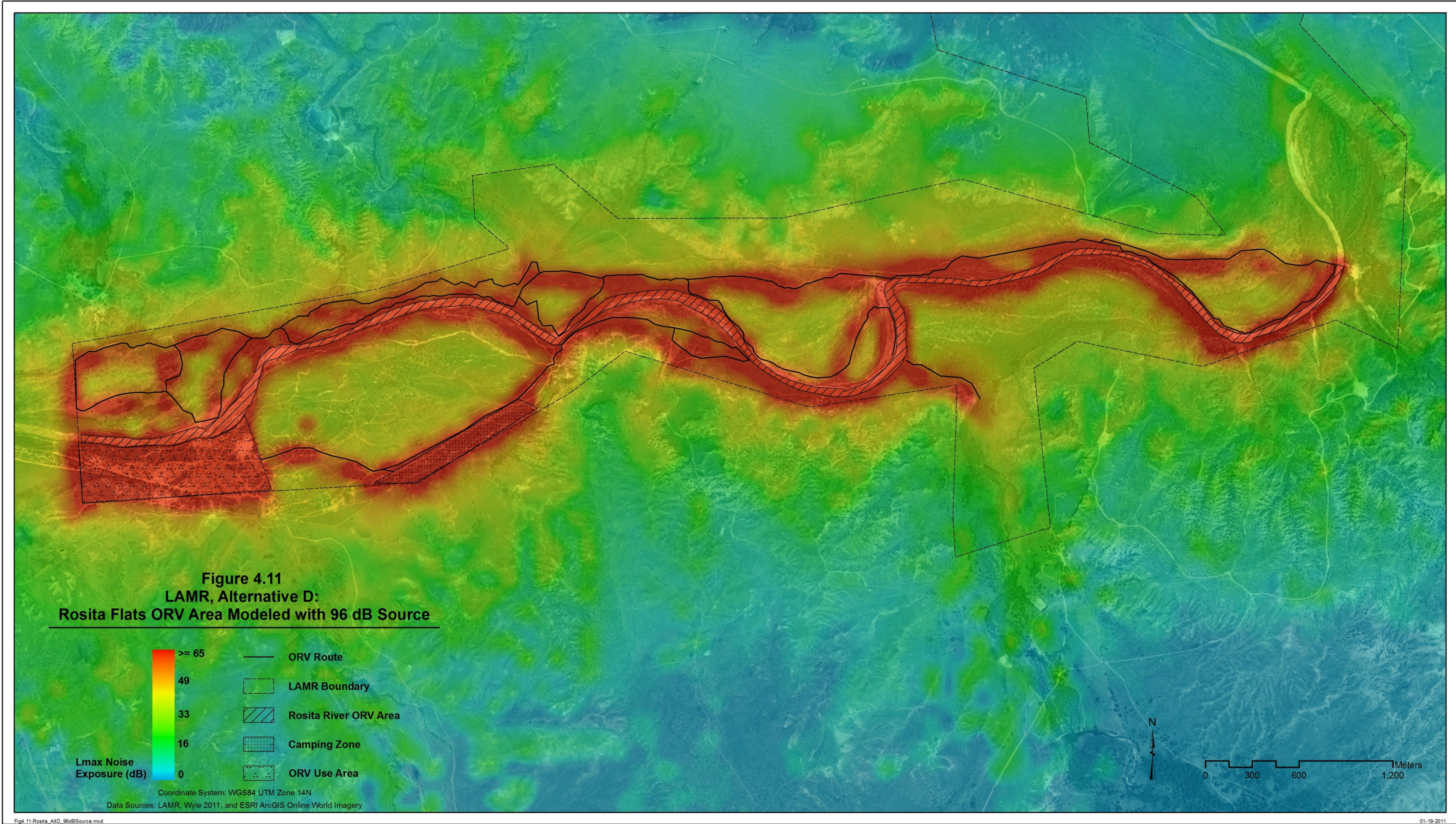
Table 4-2 contains the contour areas for the alternatives modeled above. The areas in the table are given with units of hectares (ha). The contoured levels are for the maximum expected A-weighted sound level for one operation of the noted source in all possible areas and on all possible routes for a given alternative. The alternatives shown in Table 4-2 are those for which there is either something to model or if there is a difference from other alternatives as explained above.

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5 Summary

Acoustic data measured at Lake Meredith National Recreation Area (LAMR) was analyzed and summarized in this report. Noise levels for periods of low park use and peak-use were measured and the acoustic conditions presented. Using NPS methodology and software, an estimate of the percent time audible for non-natural sounds was determined. From the noise measurements, a composite ORV noise source was estimated for a single operating state. The composite ORV source was used to predict maximum noise levels due to ORV activity in Blue Creek and Rosita for proposed alternatives in the Off-Road Vehicle Management Plan EIS. Proposed alternatives were modeled using NPS's NMSim noise prediction software tool.

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Appendix A

2008 Hourly A-weighted Sound Level Time History Plots

February 2011

Prepared for National Park Service

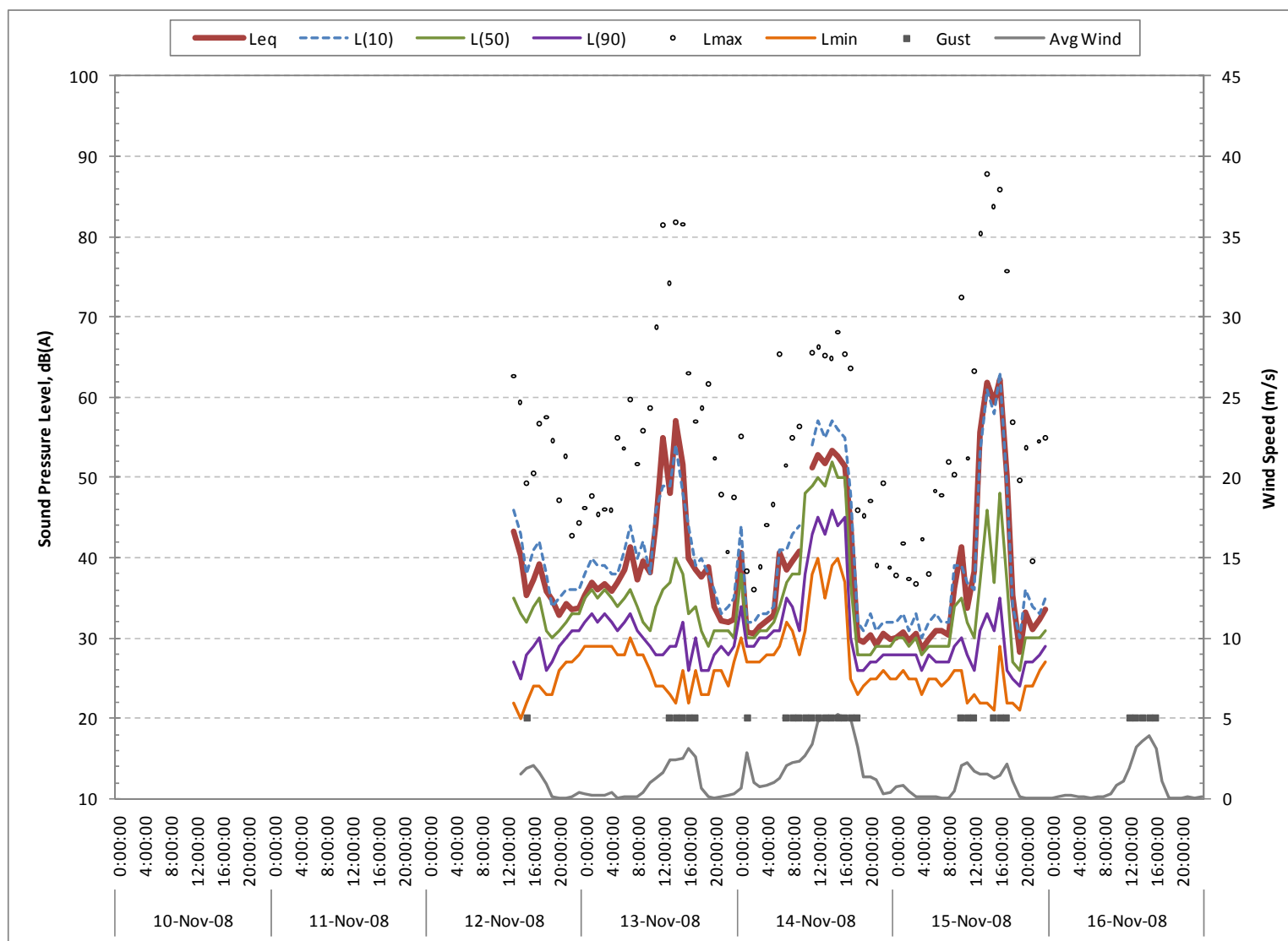


Figure A-1. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 10-November-2008

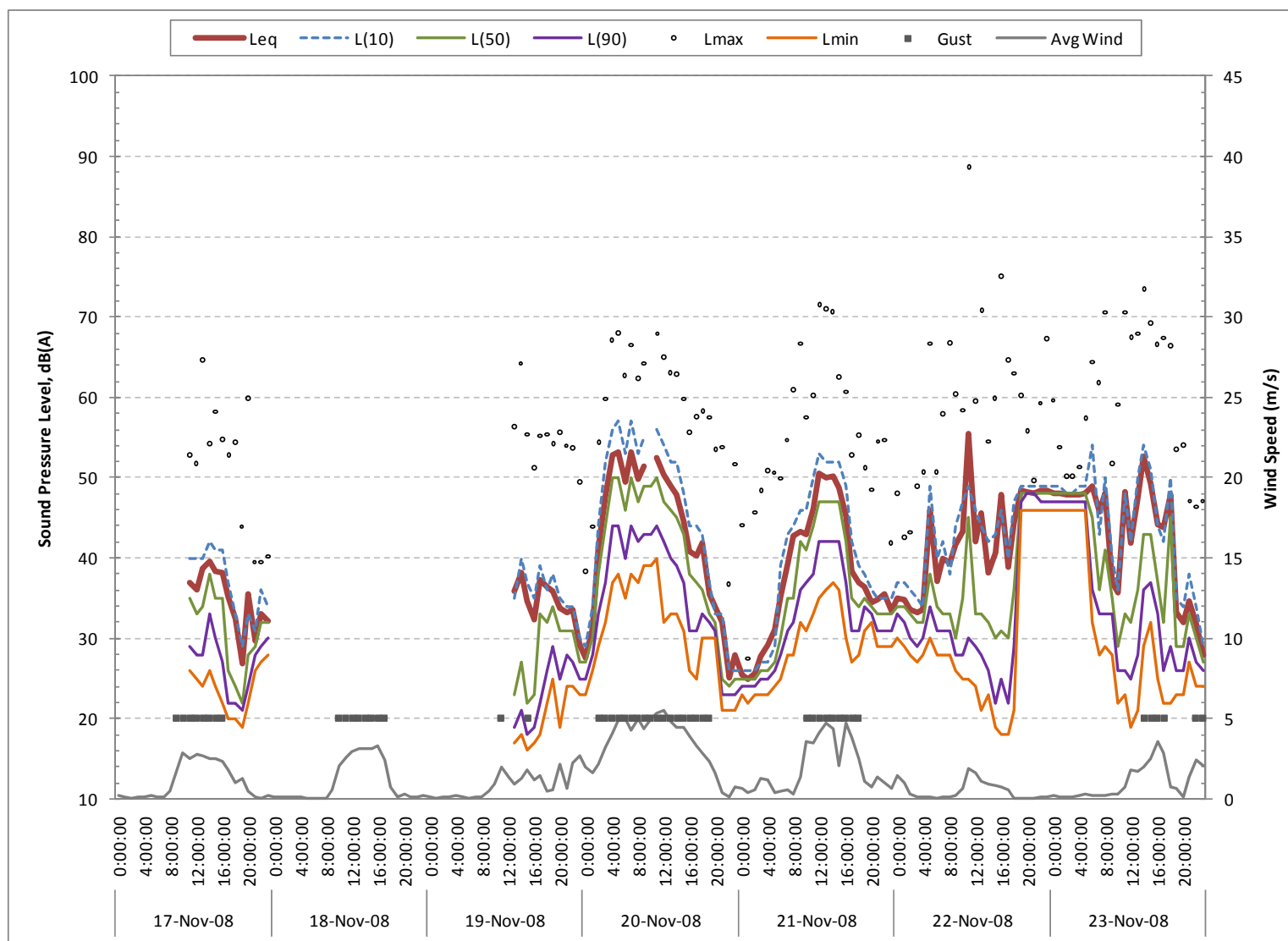


Figure A-2. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 17-November-2008

February 2011

Prepared for National Park Service

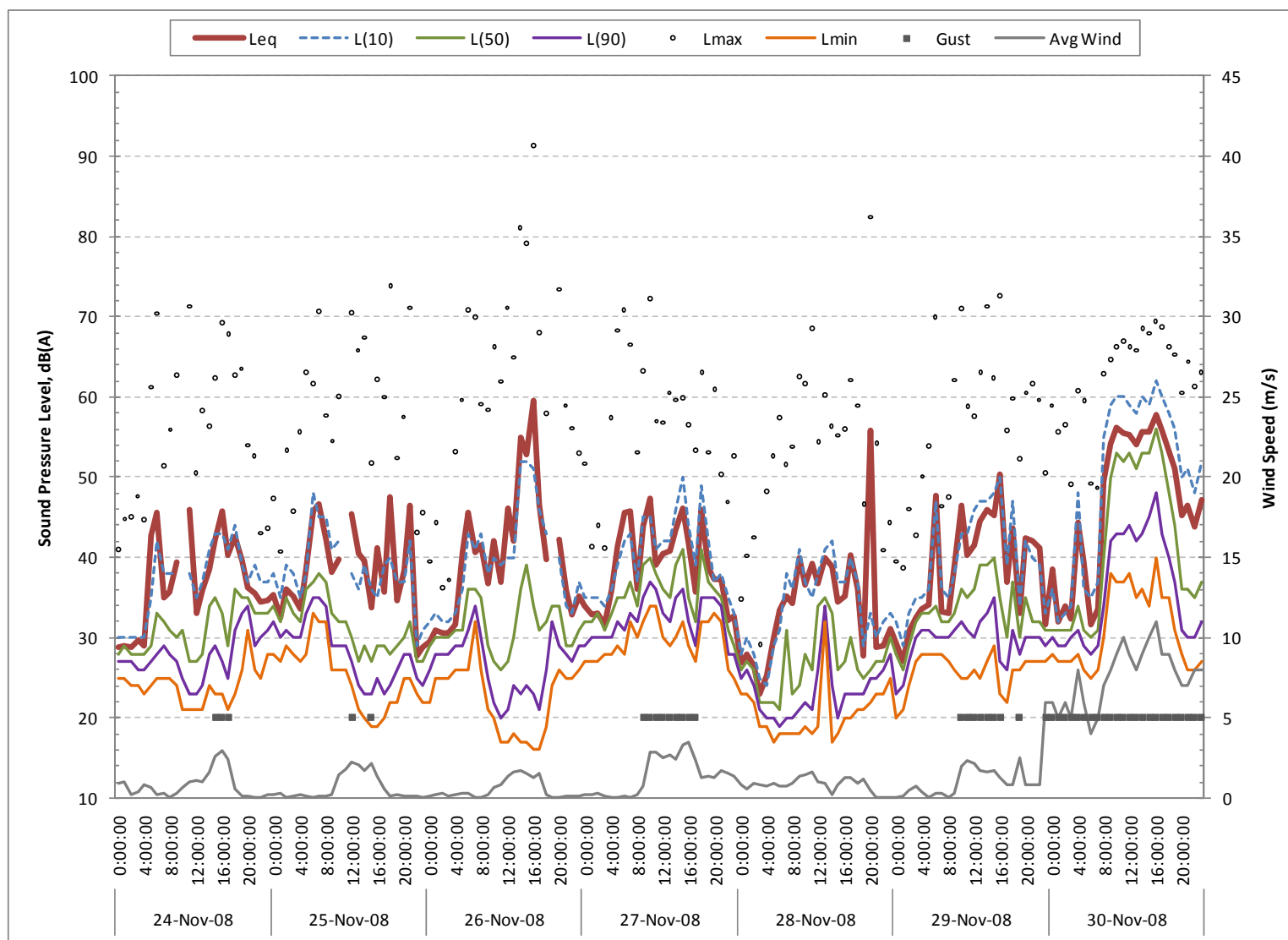


Figure A-3. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 24-November-2008

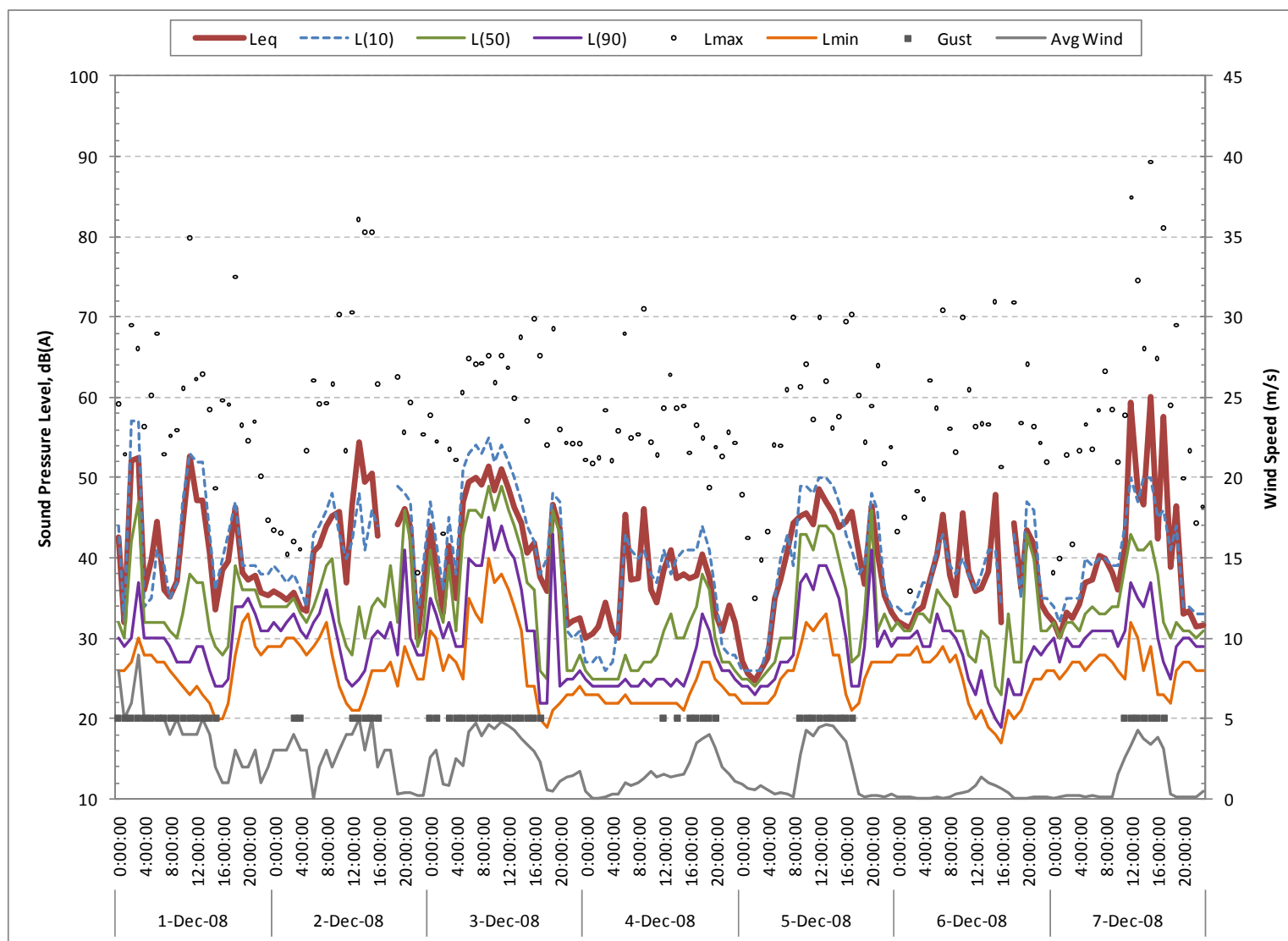


Figure A-4. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 1-December-2008

February 2011

Prepared for National Park Service

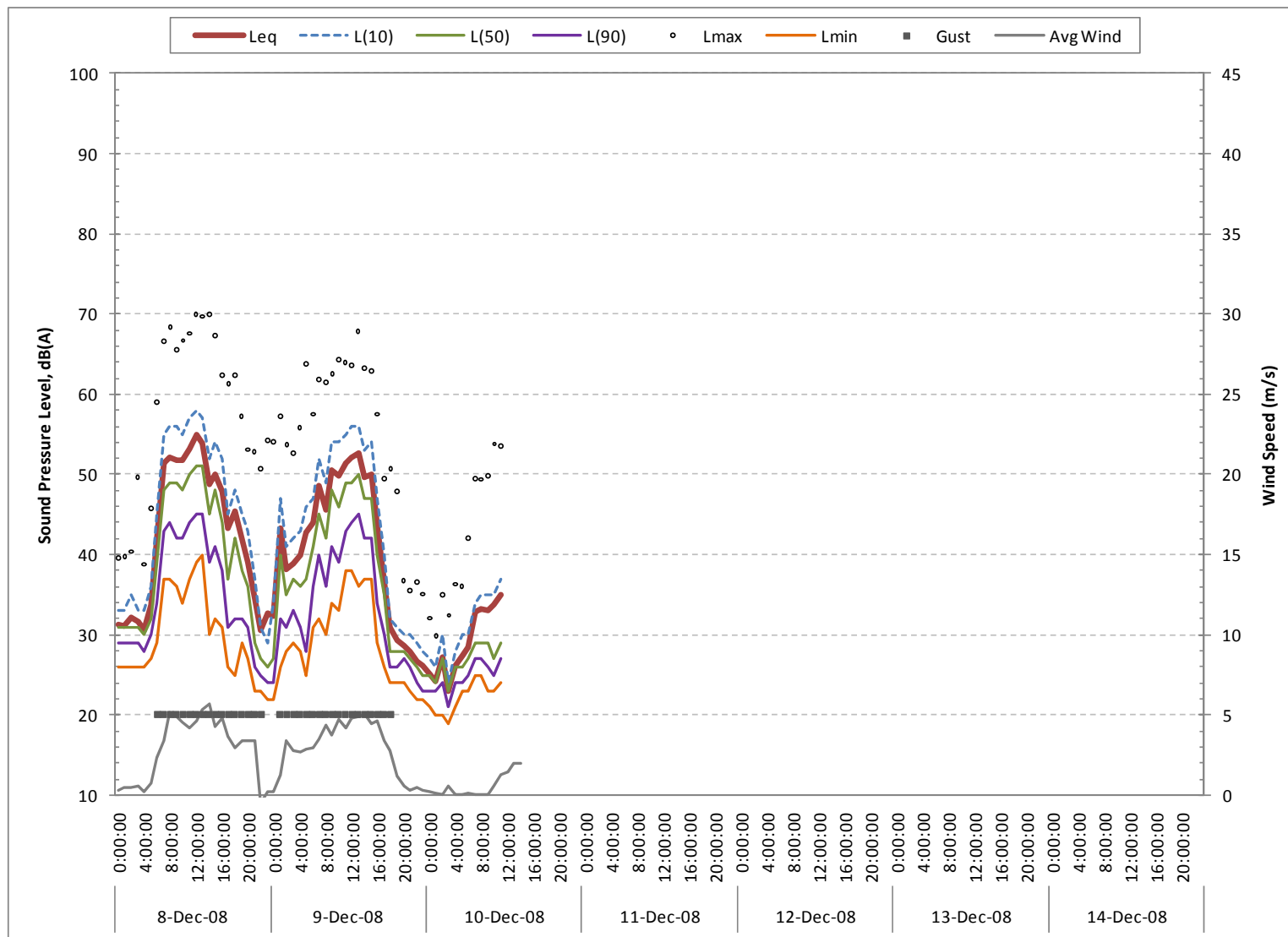


Figure A-5. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 8-December-2008

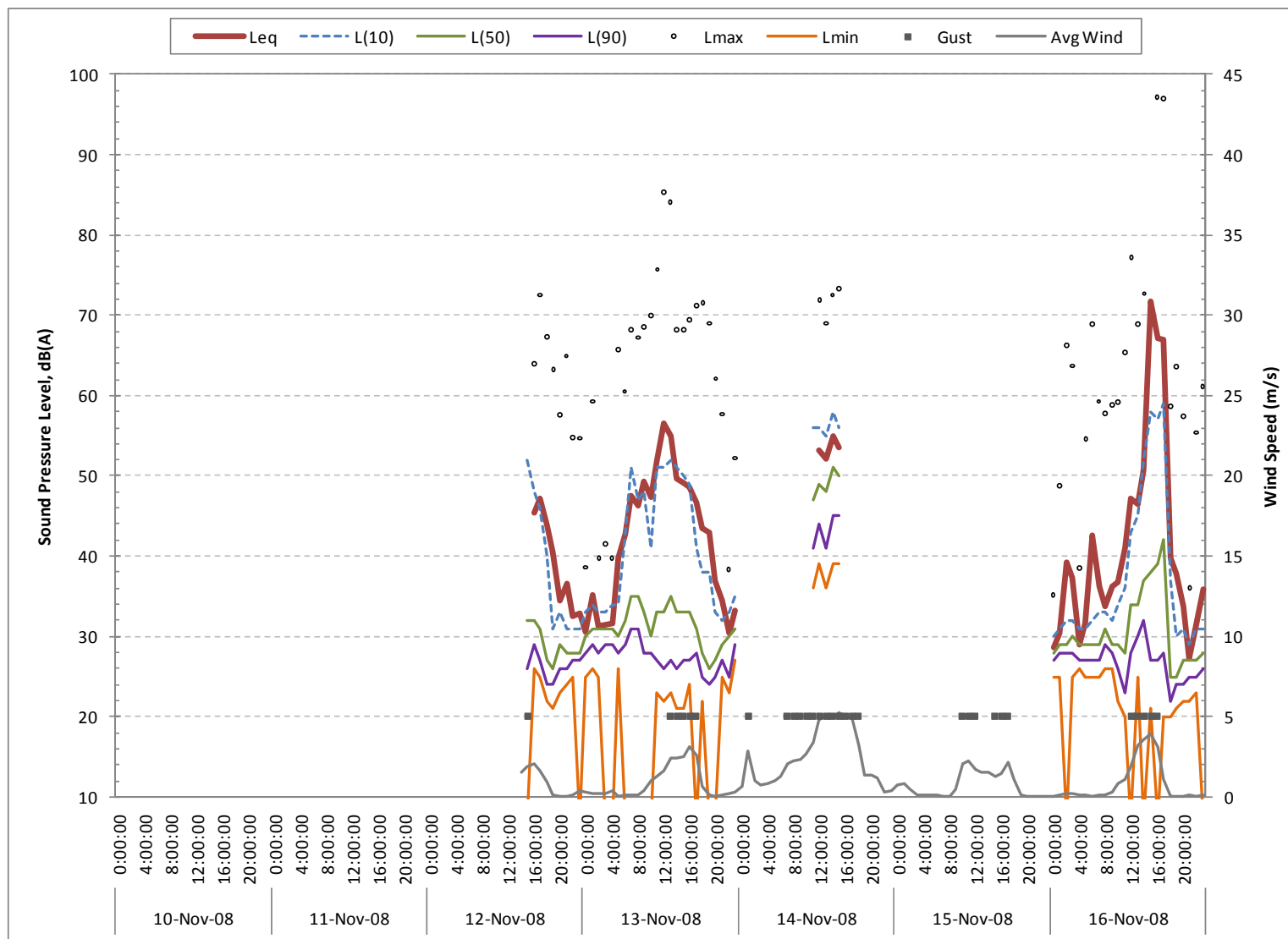


Figure A-6. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 10-November-2008

February 2011

Prepared for National Park Service

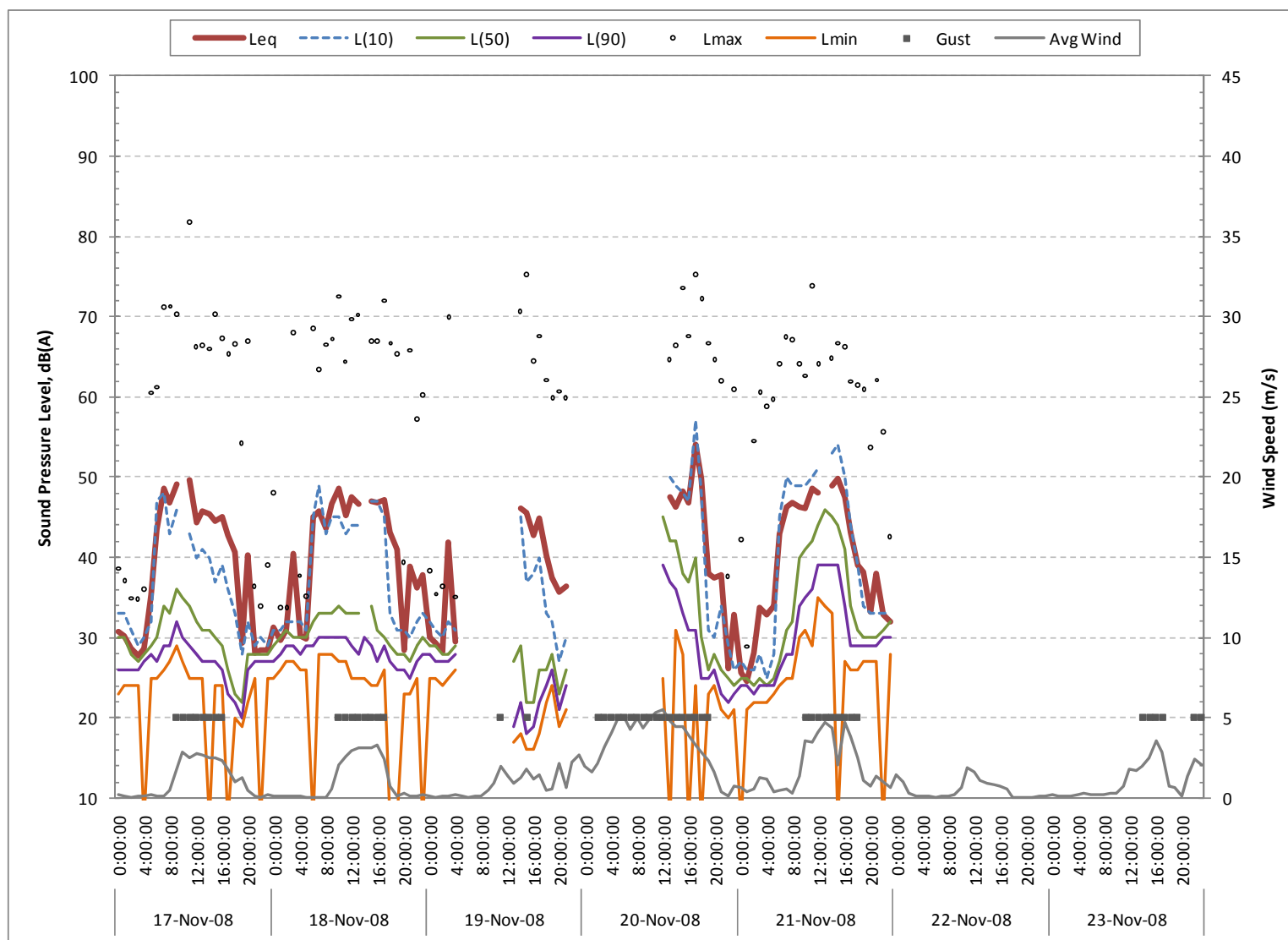


Figure A-7. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 17-November-2008

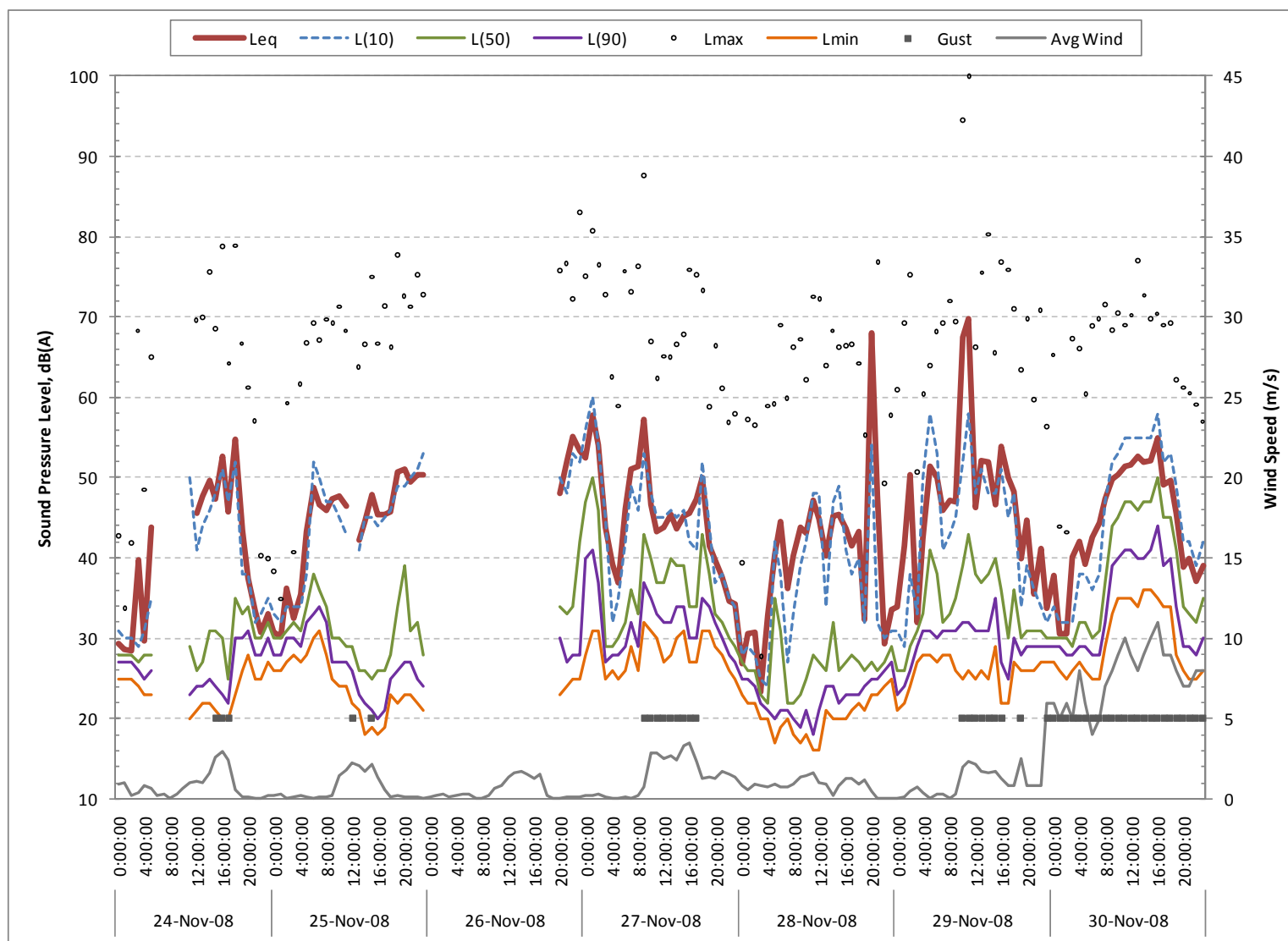


Figure A-8. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 24-November-2008

February 2011

Prepared for National Park Service

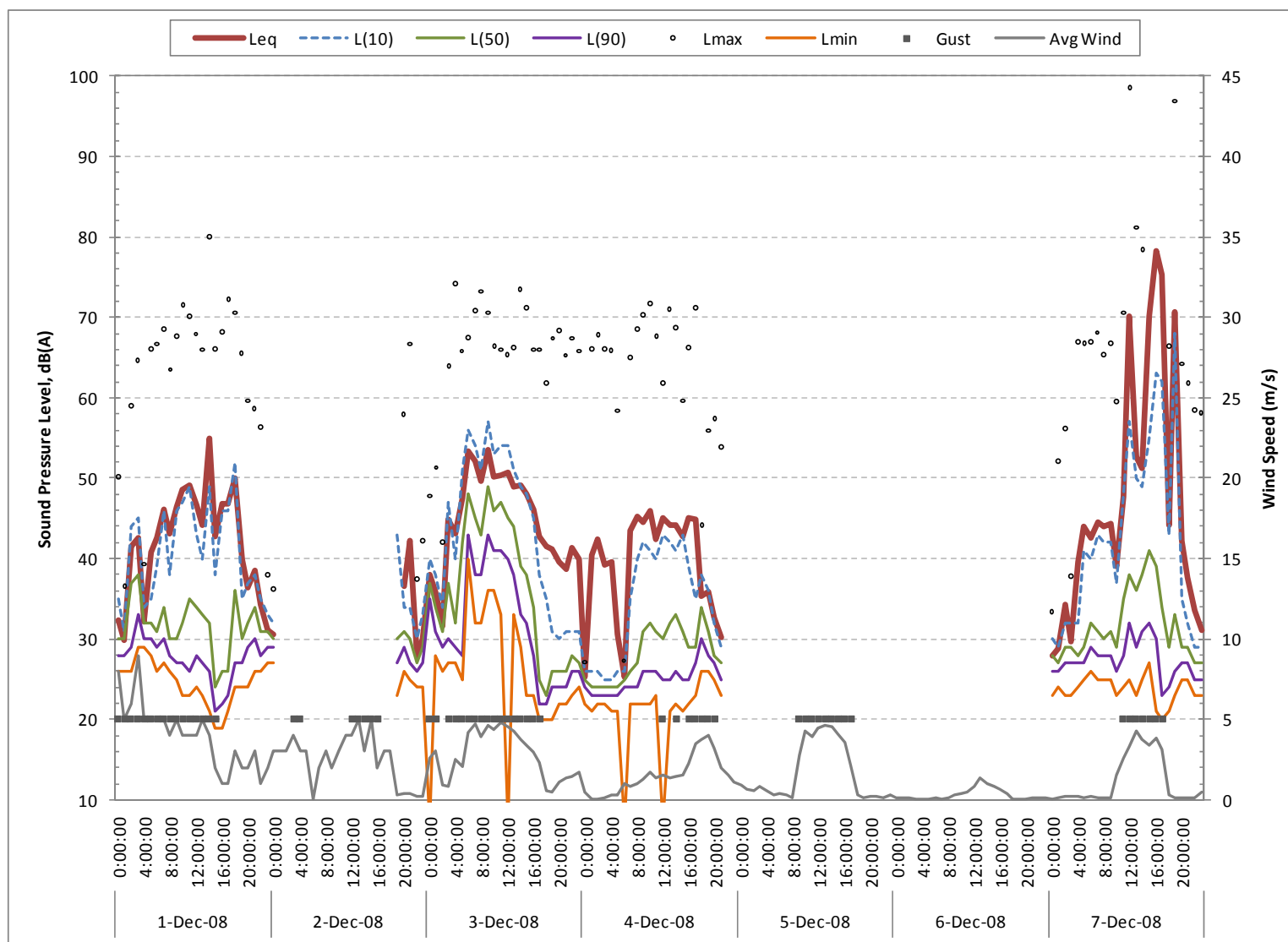


Figure A-9. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 1-December-2008

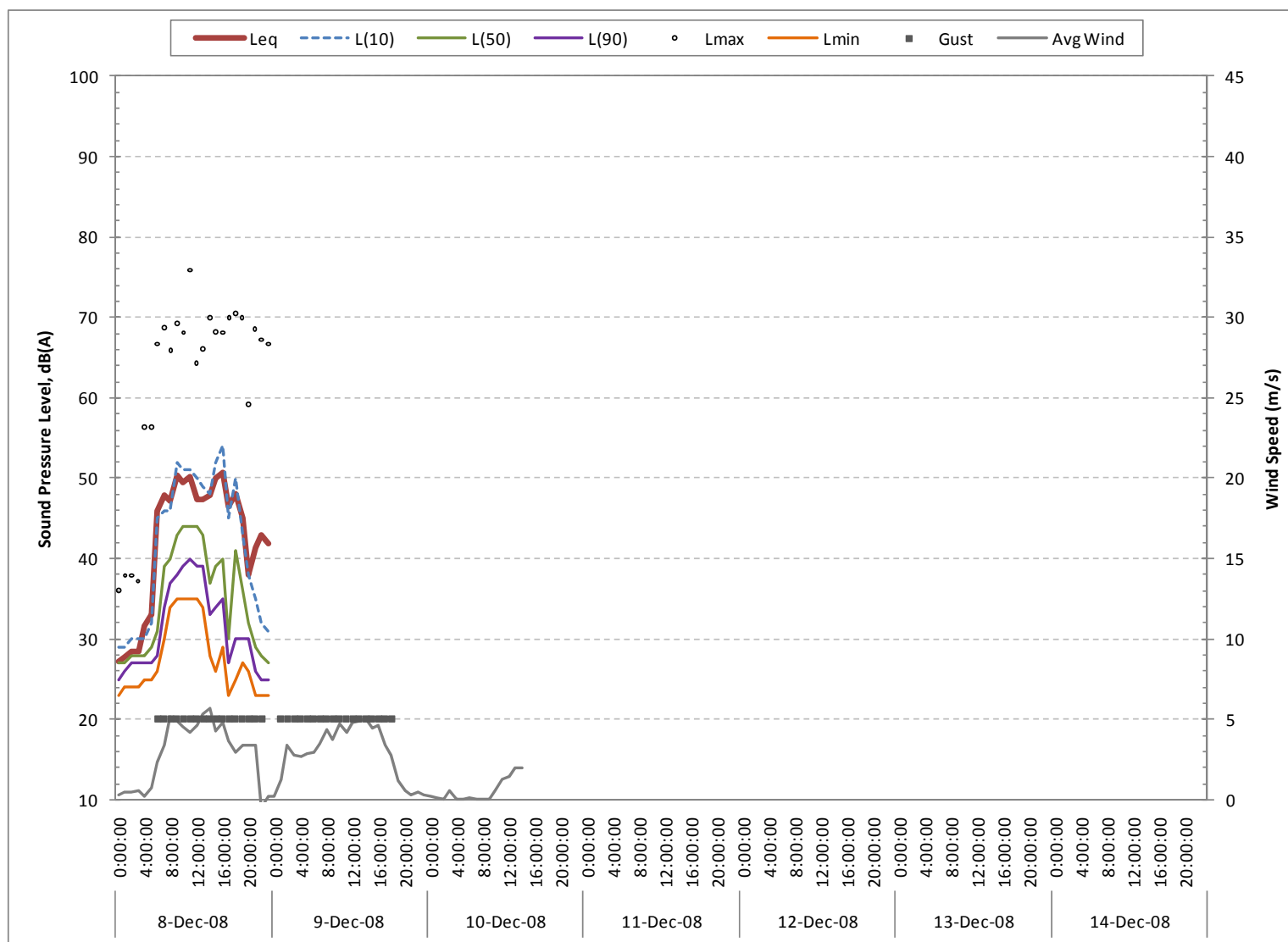


Figure A-10. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 8-December-2008

February 2011

Prepared for National Park Service

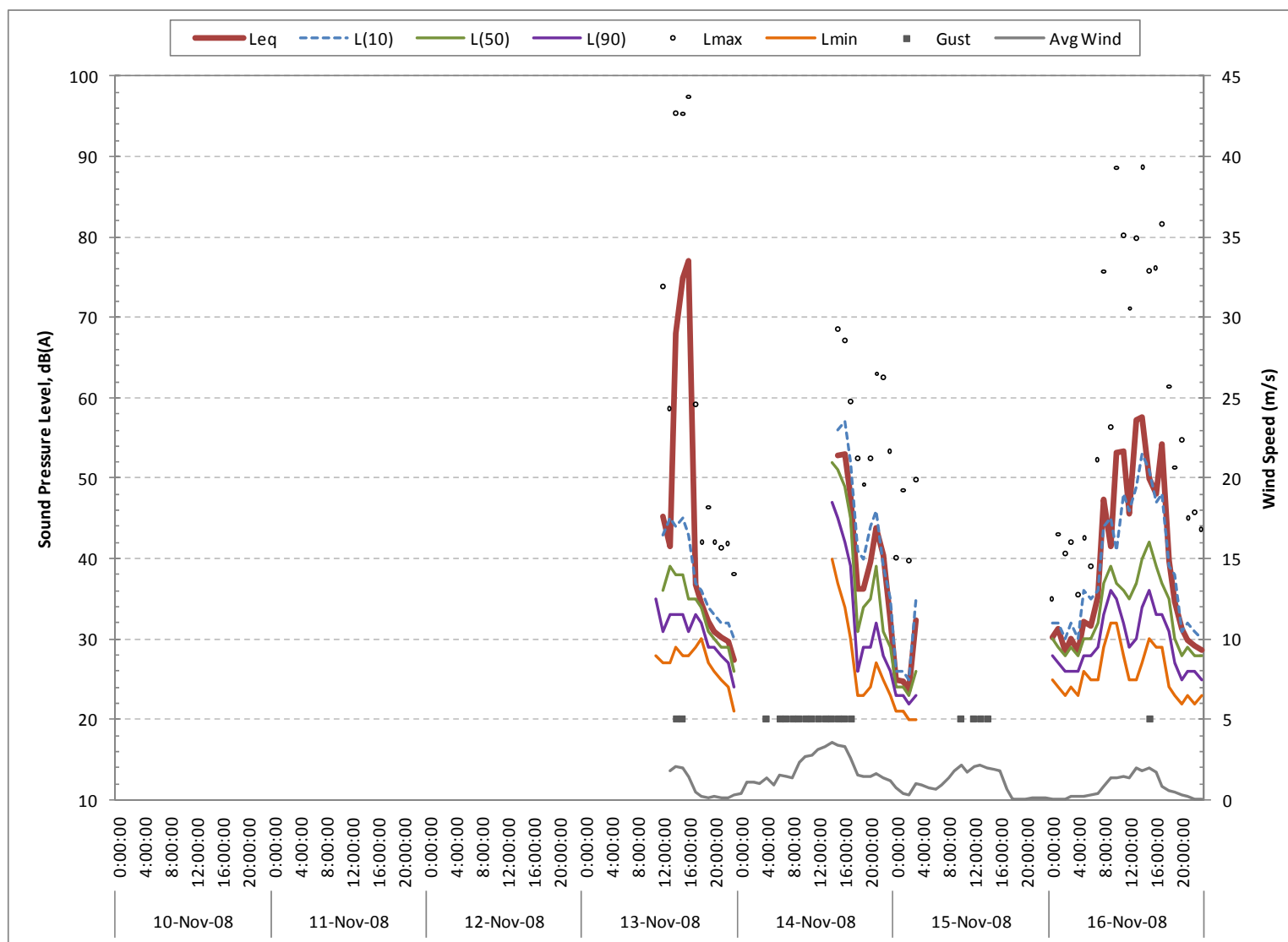


Figure A-11. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 10-November-2008

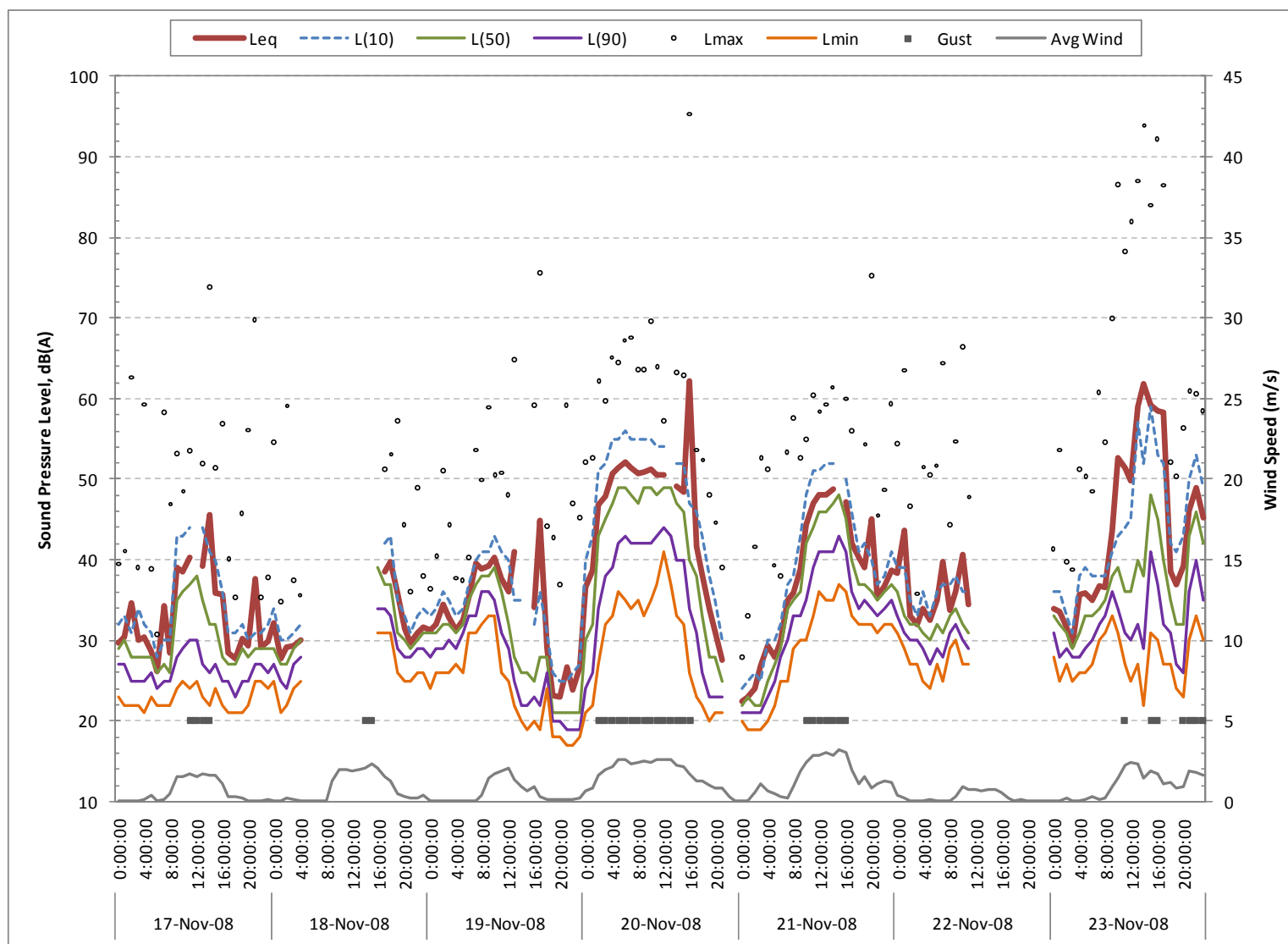


Figure A-12. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 17-November-2008

February 2011

Prepared for National Park Service

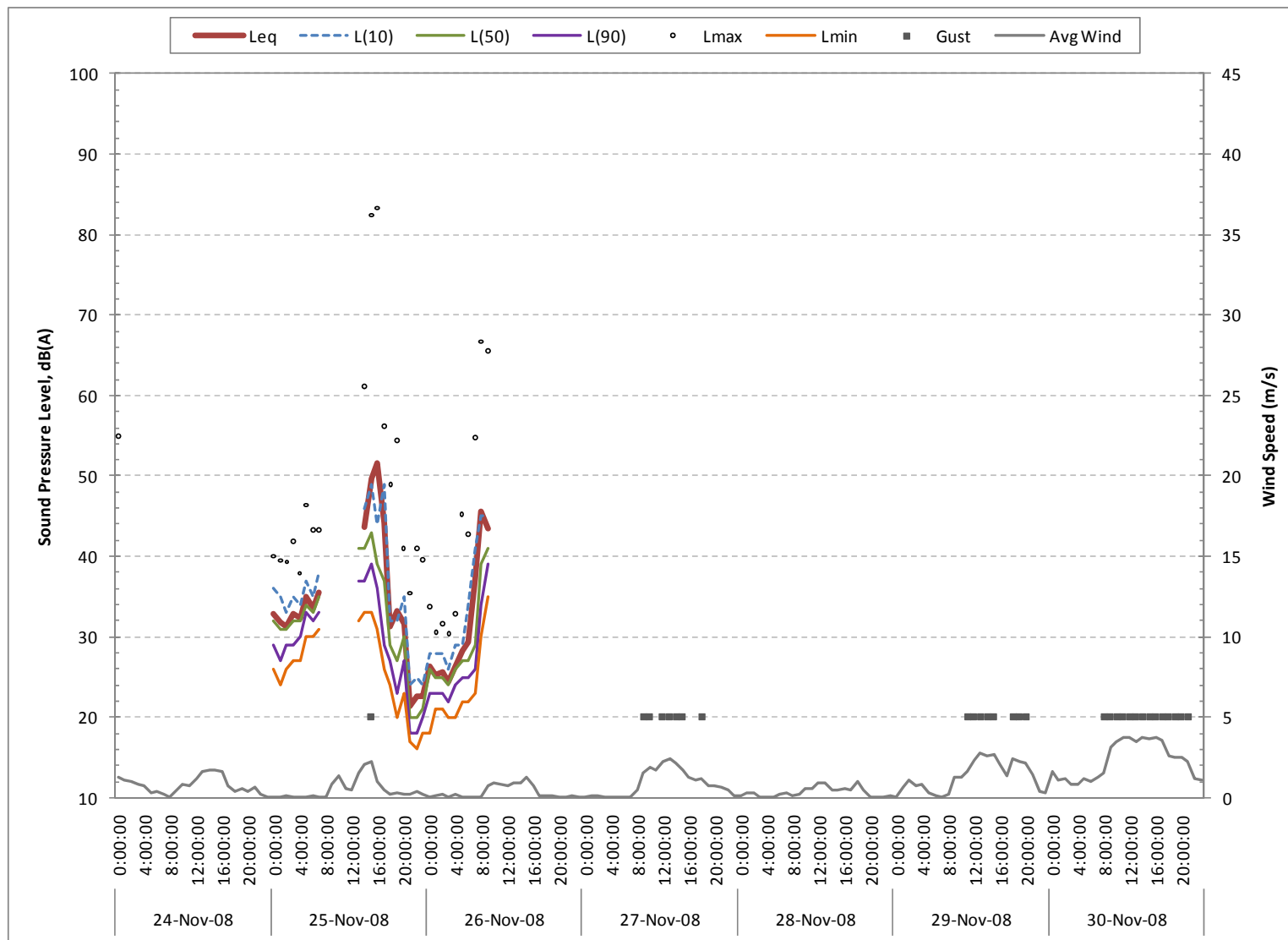


Figure A-13. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 24-November-2008

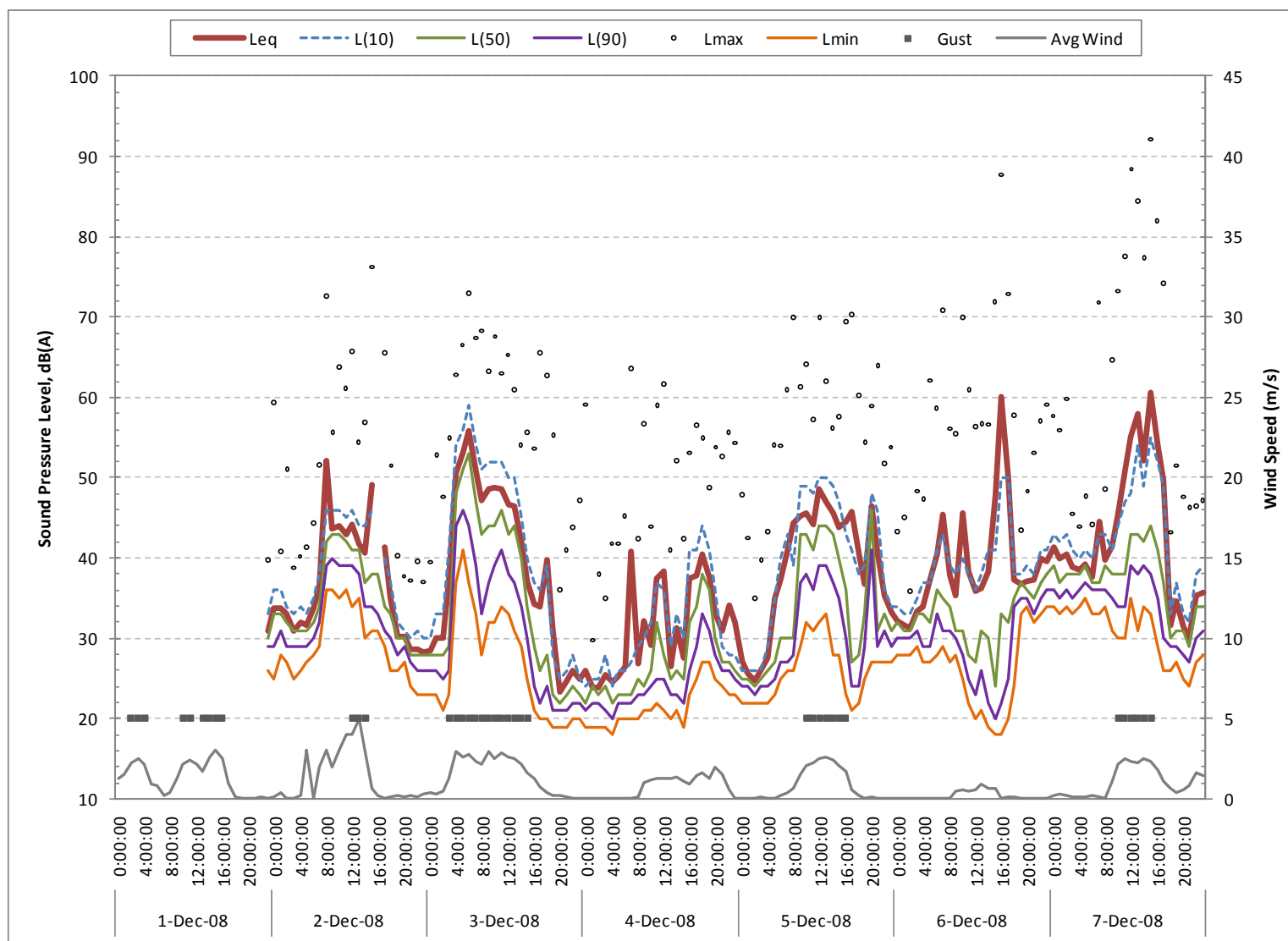


Figure A-14. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 1-December-2008

February 2011

Prepared for National Park Service

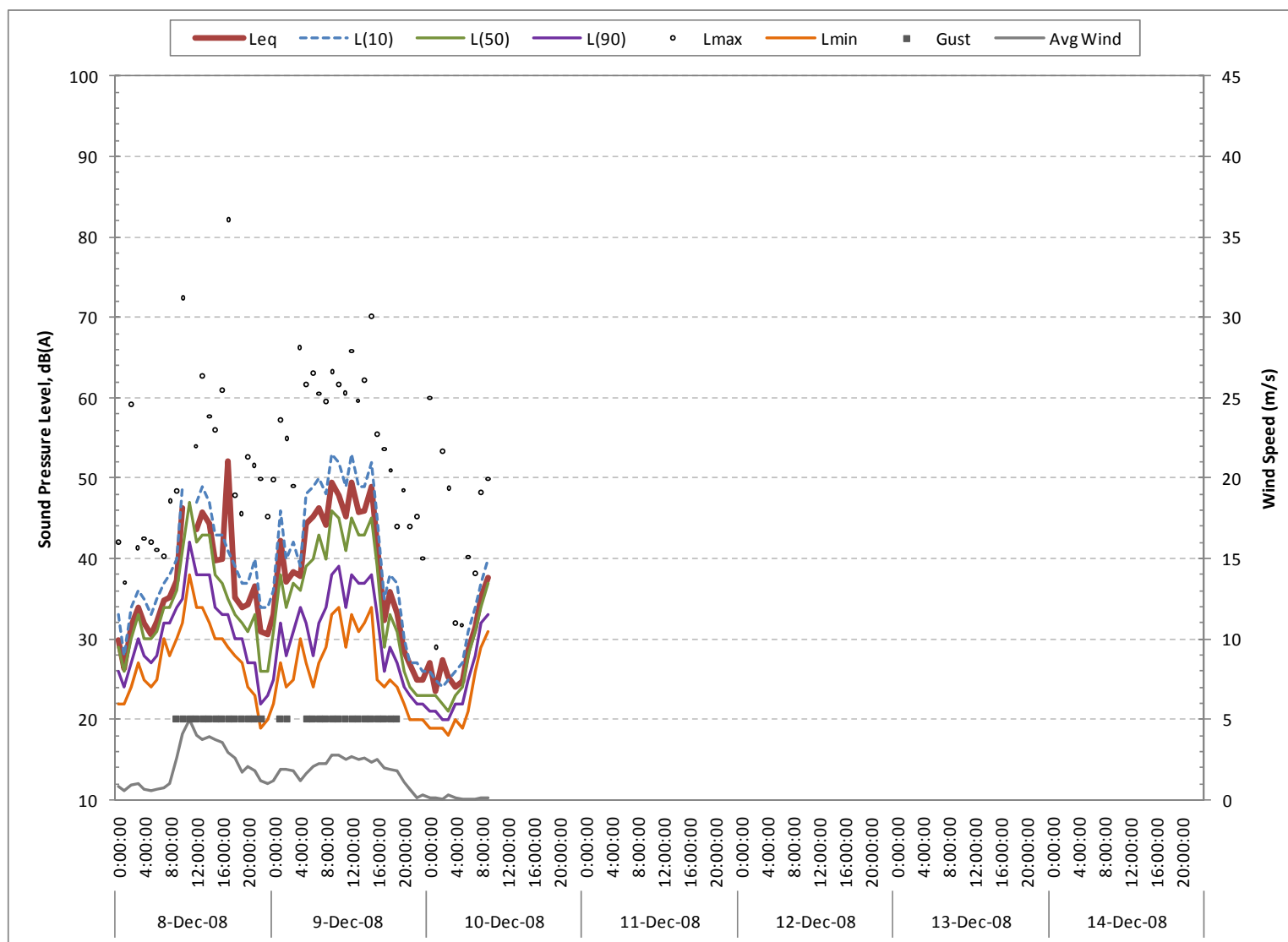


Figure A-15. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 8-December-2008

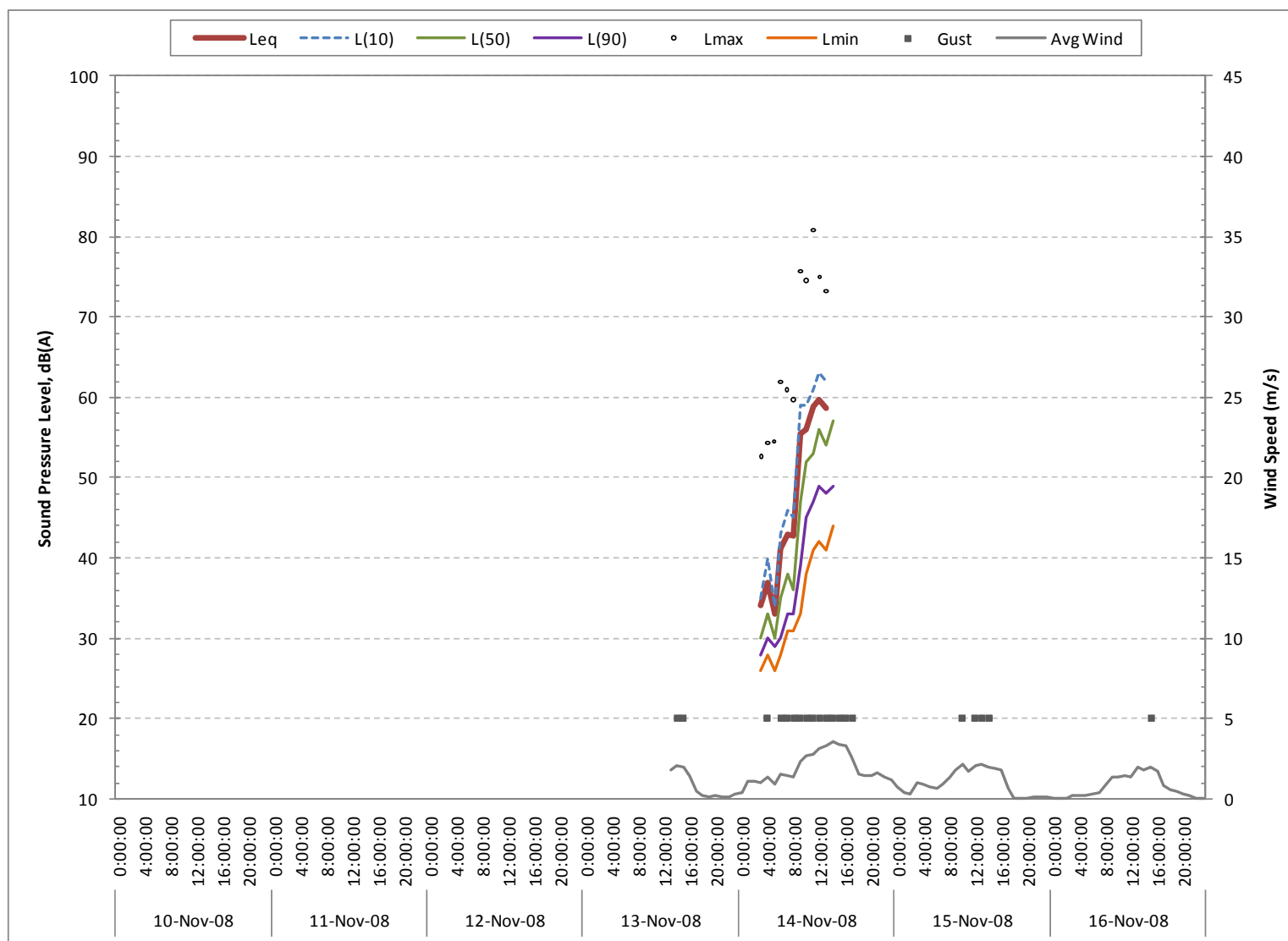


Figure A-16. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 10-November-2008

February 2011

Prepared for National Park Service

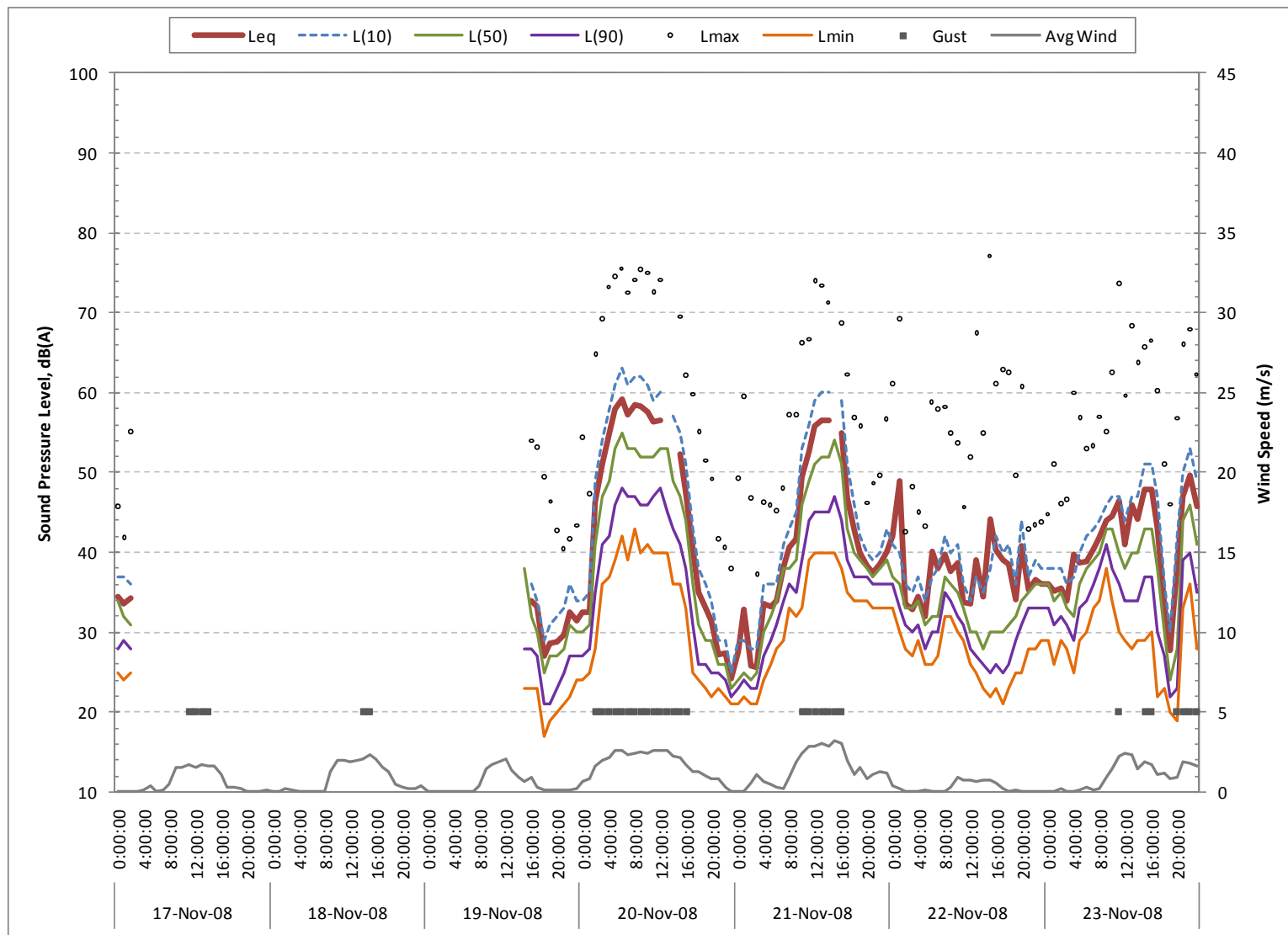


Figure A-17. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 17-November-2008

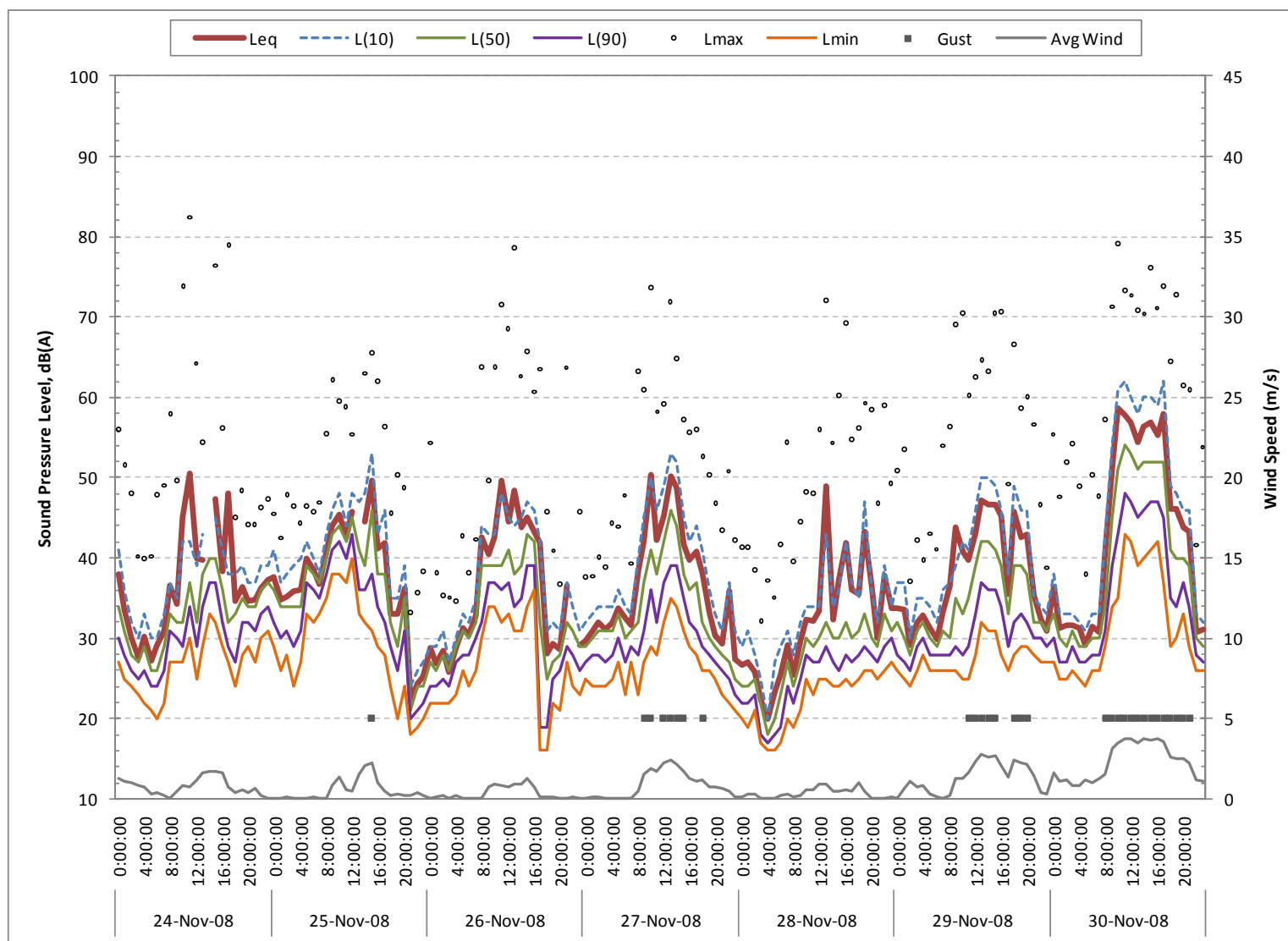


Figure A-18. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 24-November-2008

February 2011

Prepared for National Park Service

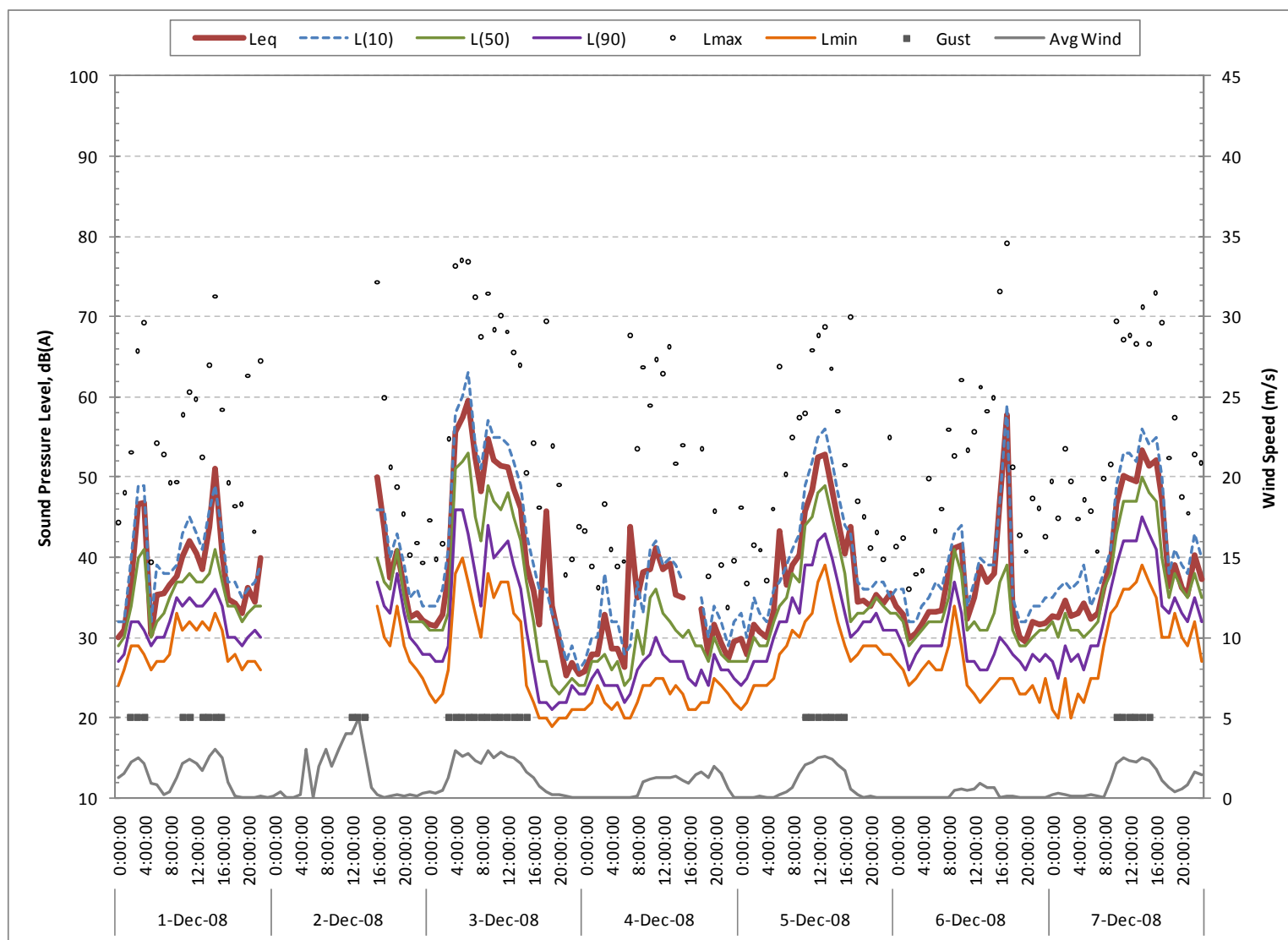


Figure A-19. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 1-December -2008

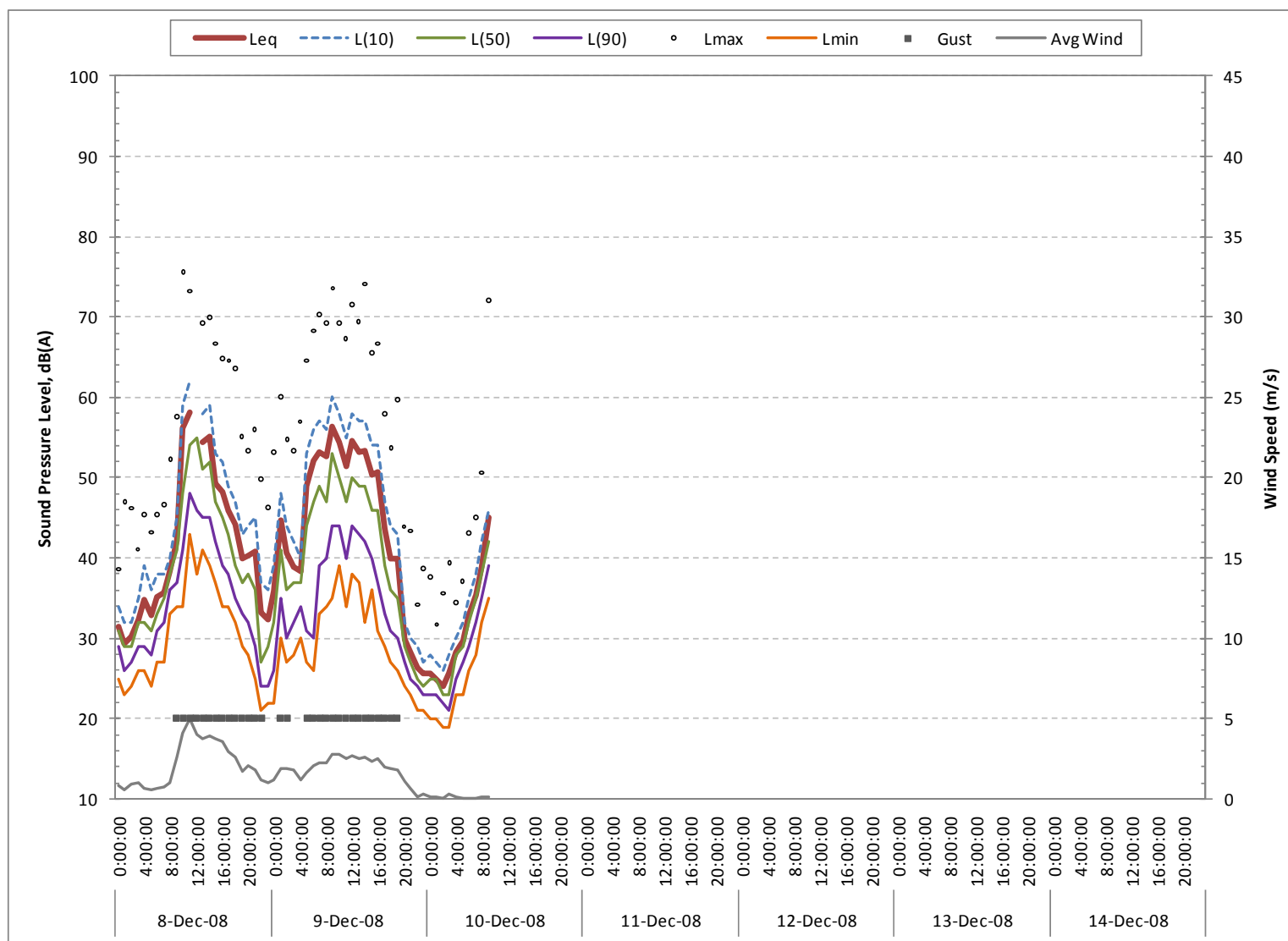


Figure A-20. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 8-December-2008

February 2011

Prepared for National Park Service

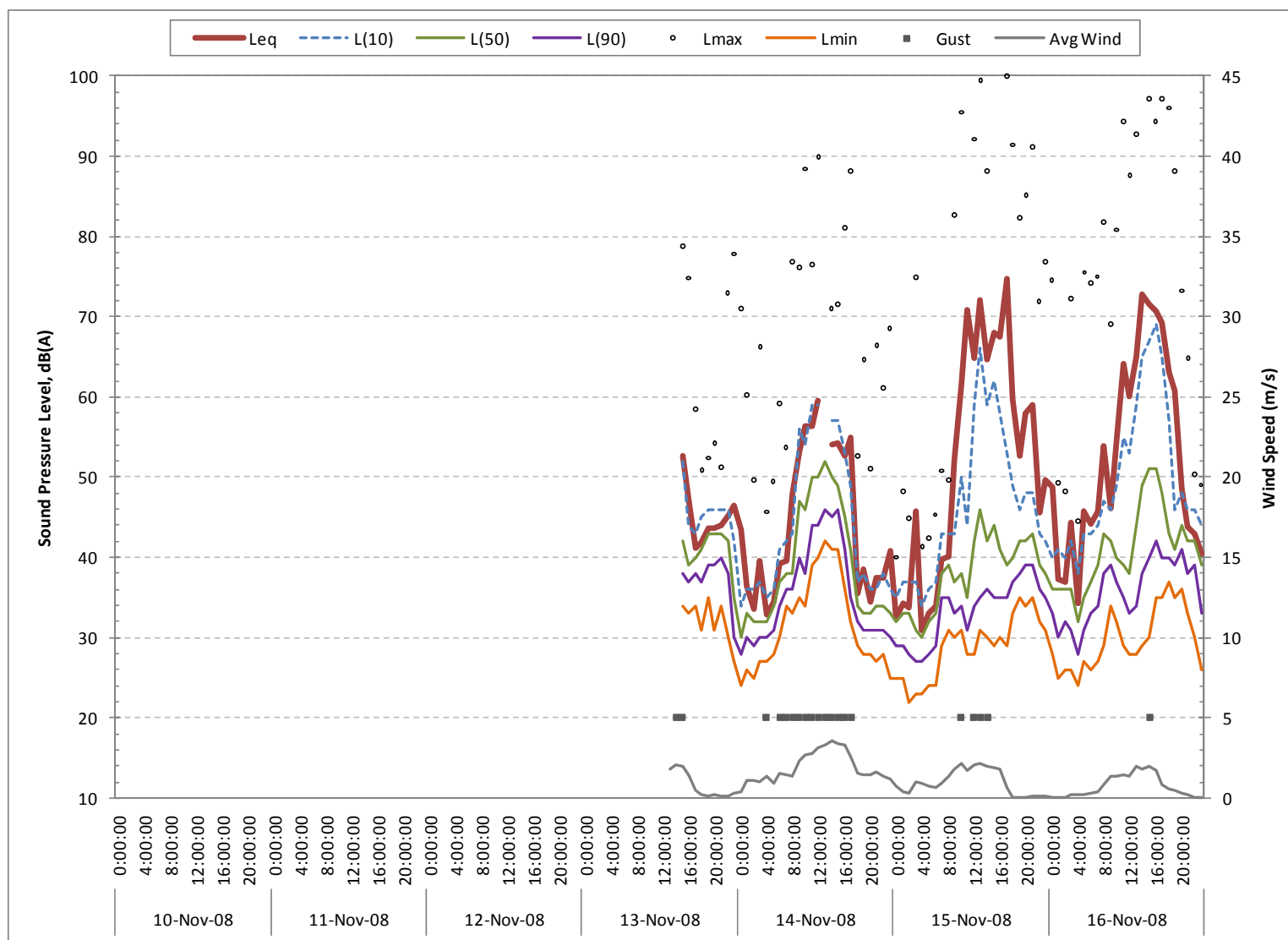


Figure A-21. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 10-November-2008

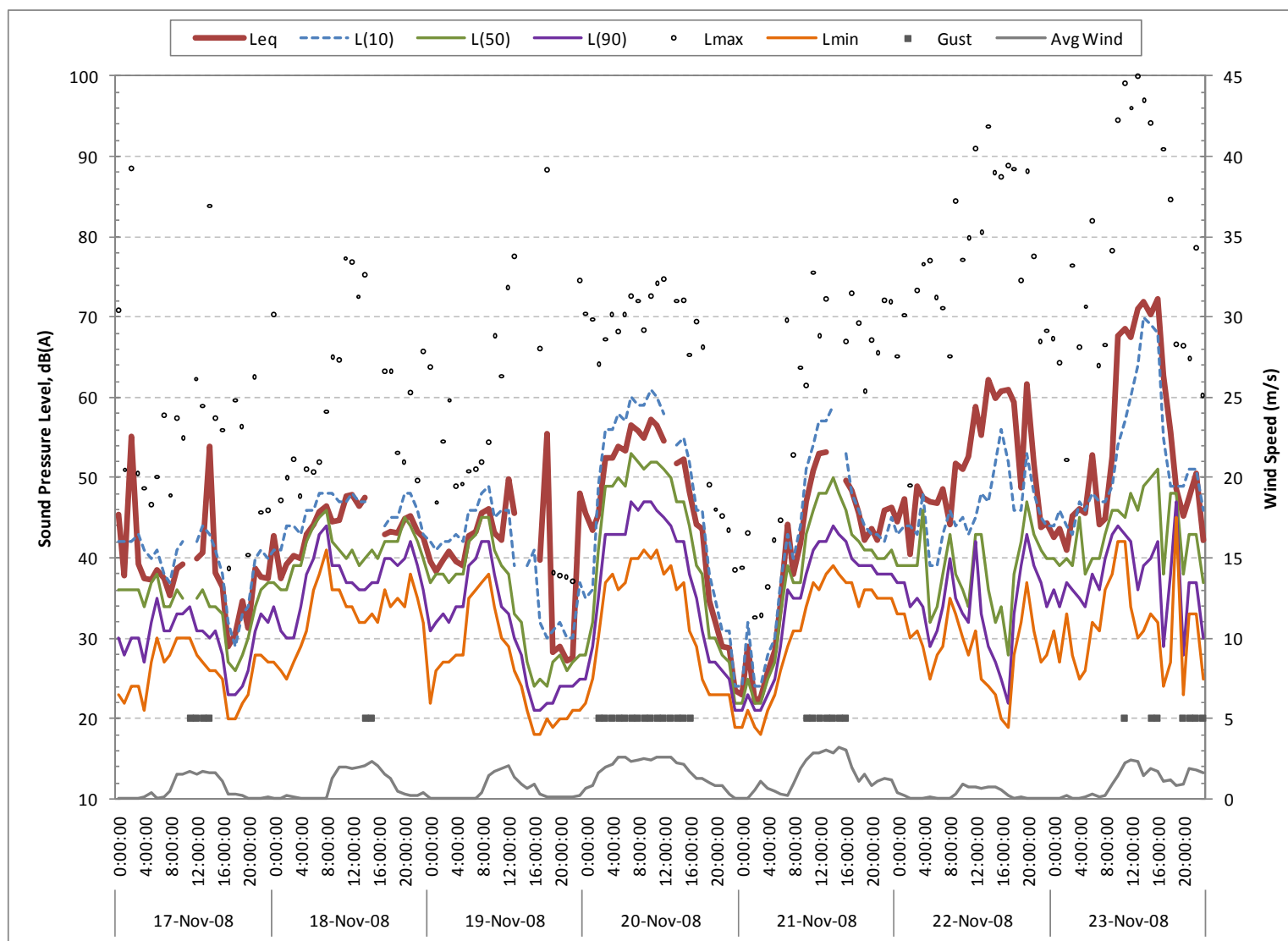


Figure A-22. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 17-November-2008

February 2011

Prepared for National Park Service

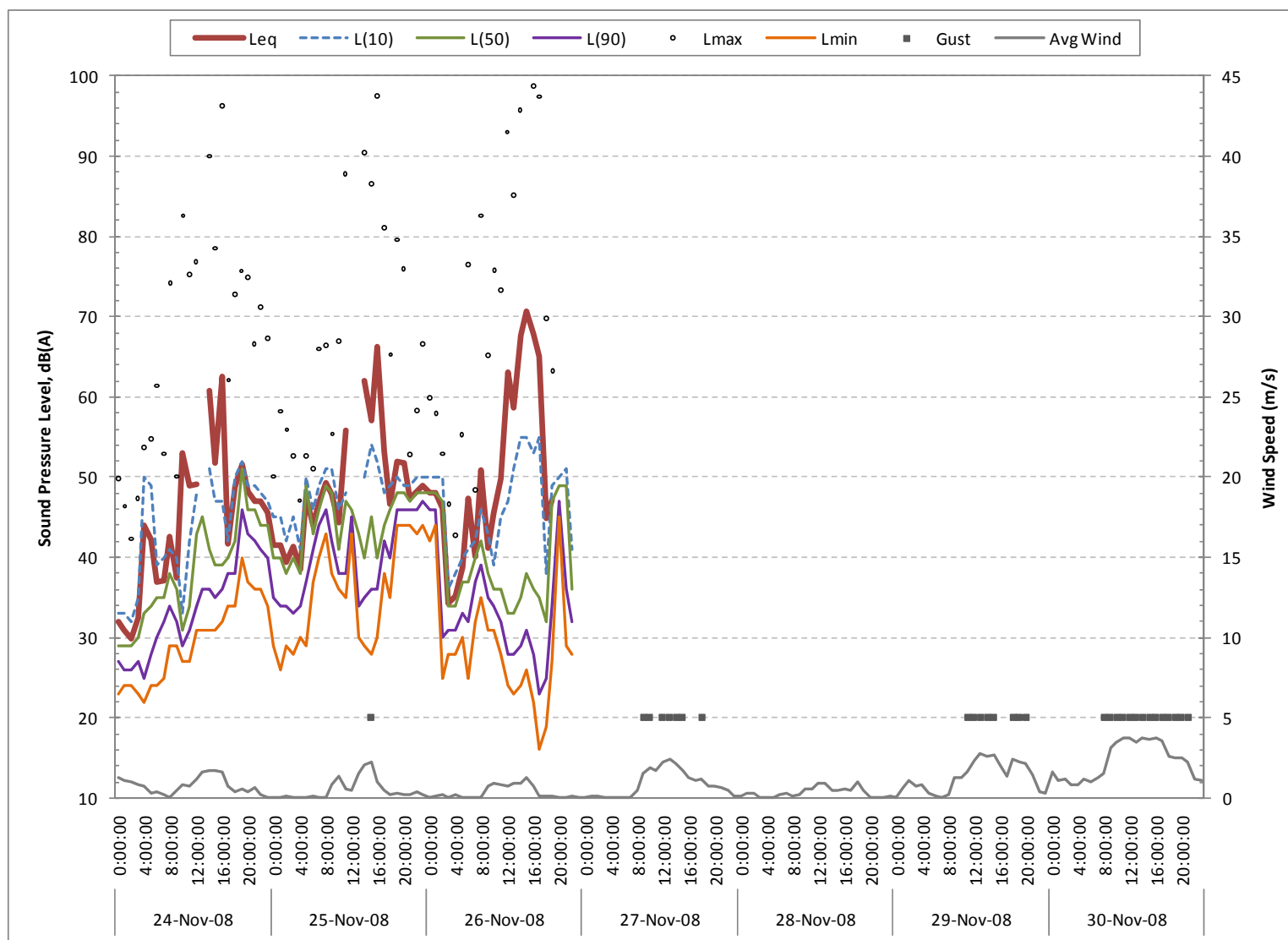


Figure A-23. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 24-November-2008

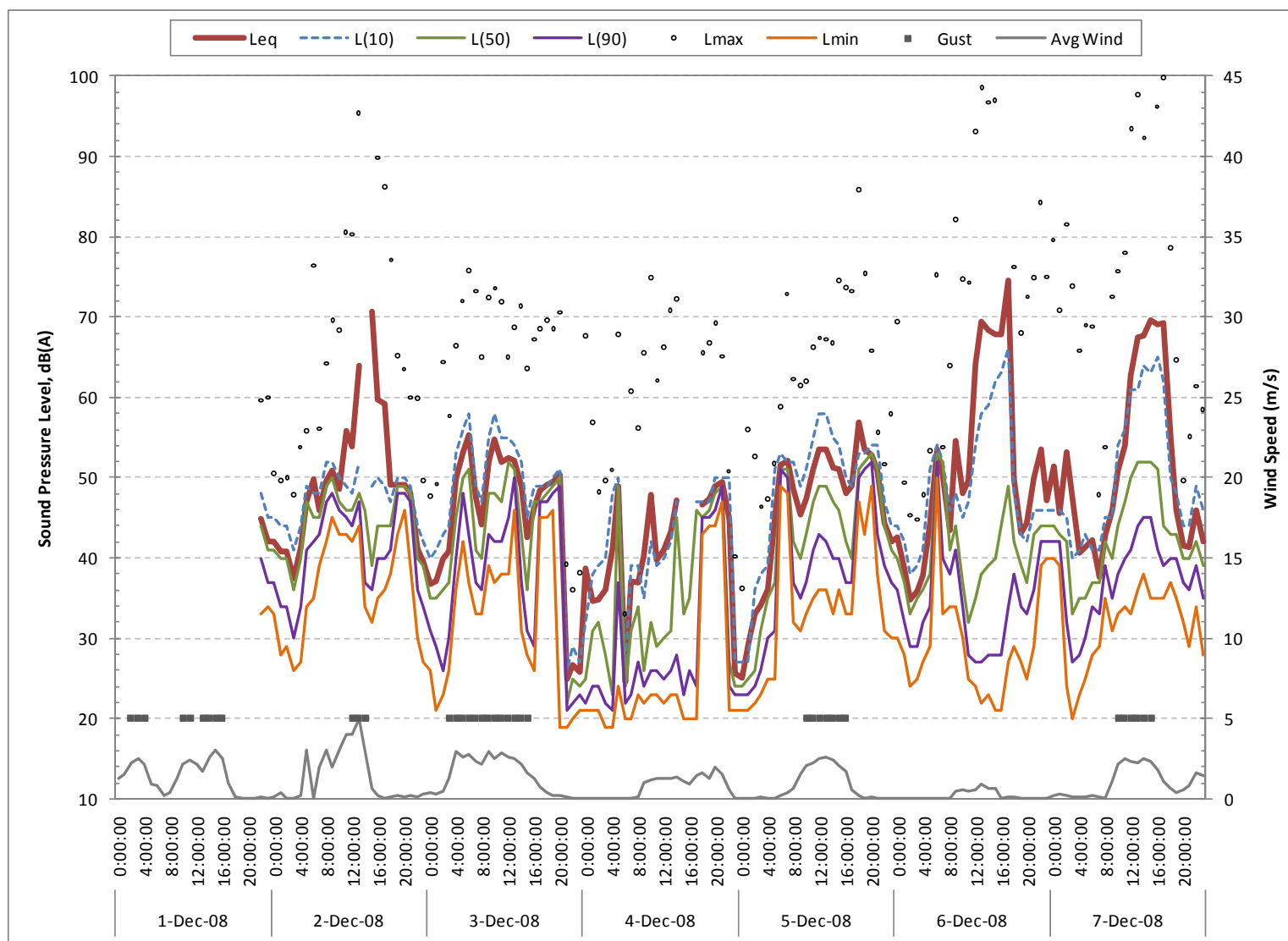


Figure A-24. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 1-December-2008

February 2011

Prepared for National Park Service

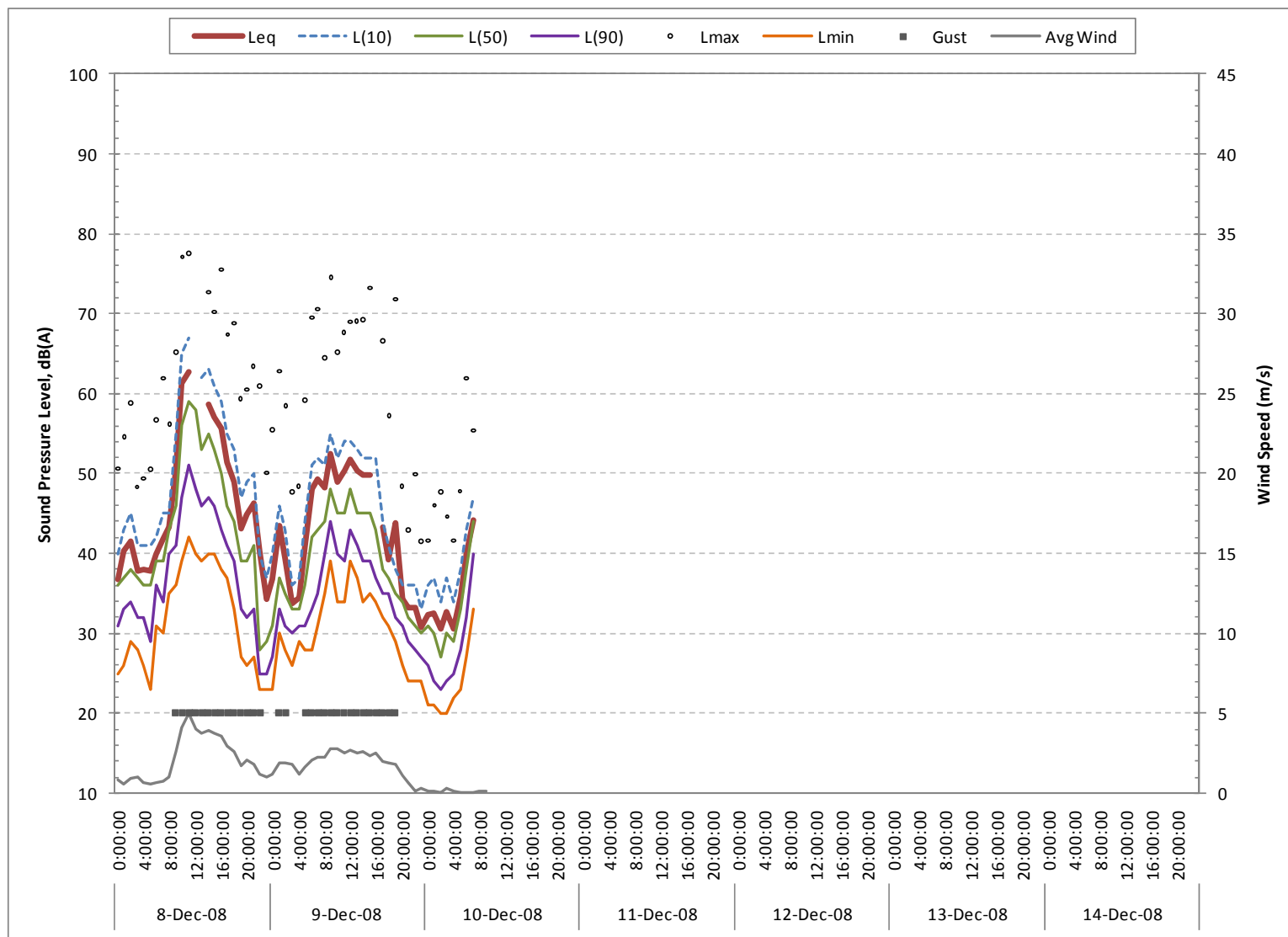


Figure A-25. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 8-December-2008

Appendix B

2009 Hourly A-weighted Sound Level Time History Plots

February 2011

Prepared for National Park Service

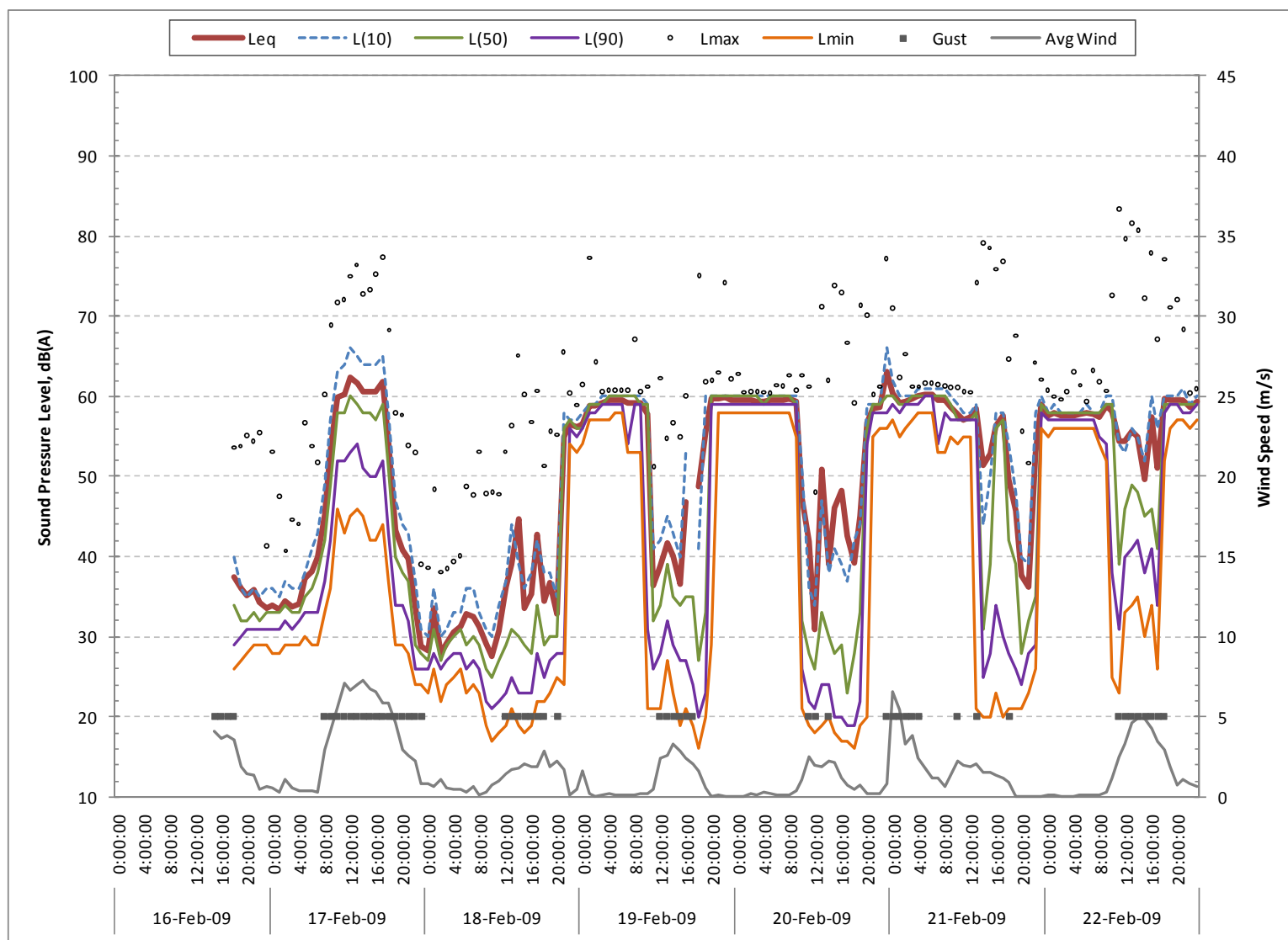


Figure B-1. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 16-February-2009

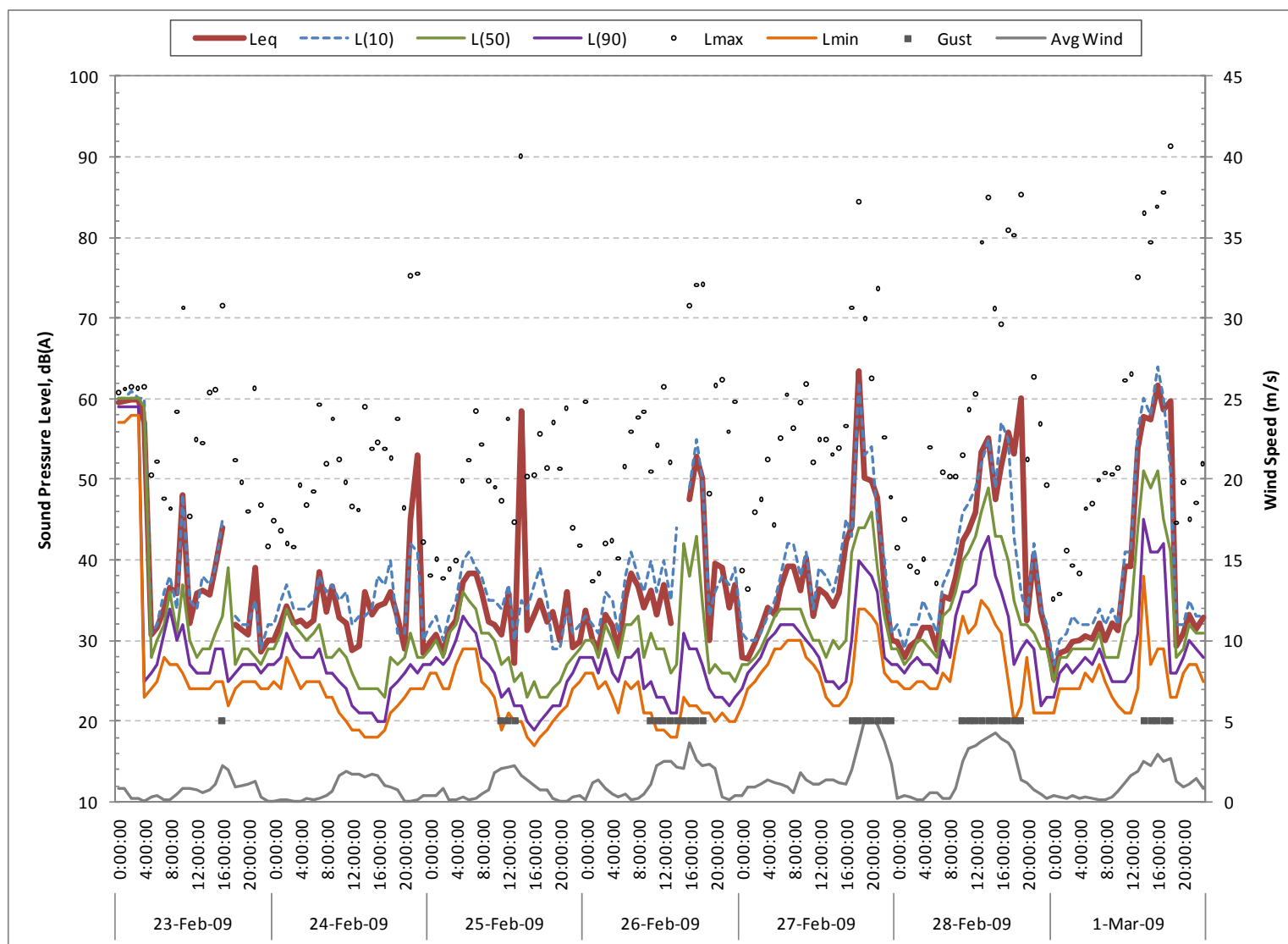


Figure B-2. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 23-February-2009

February 2011

Prepared for National Park Service

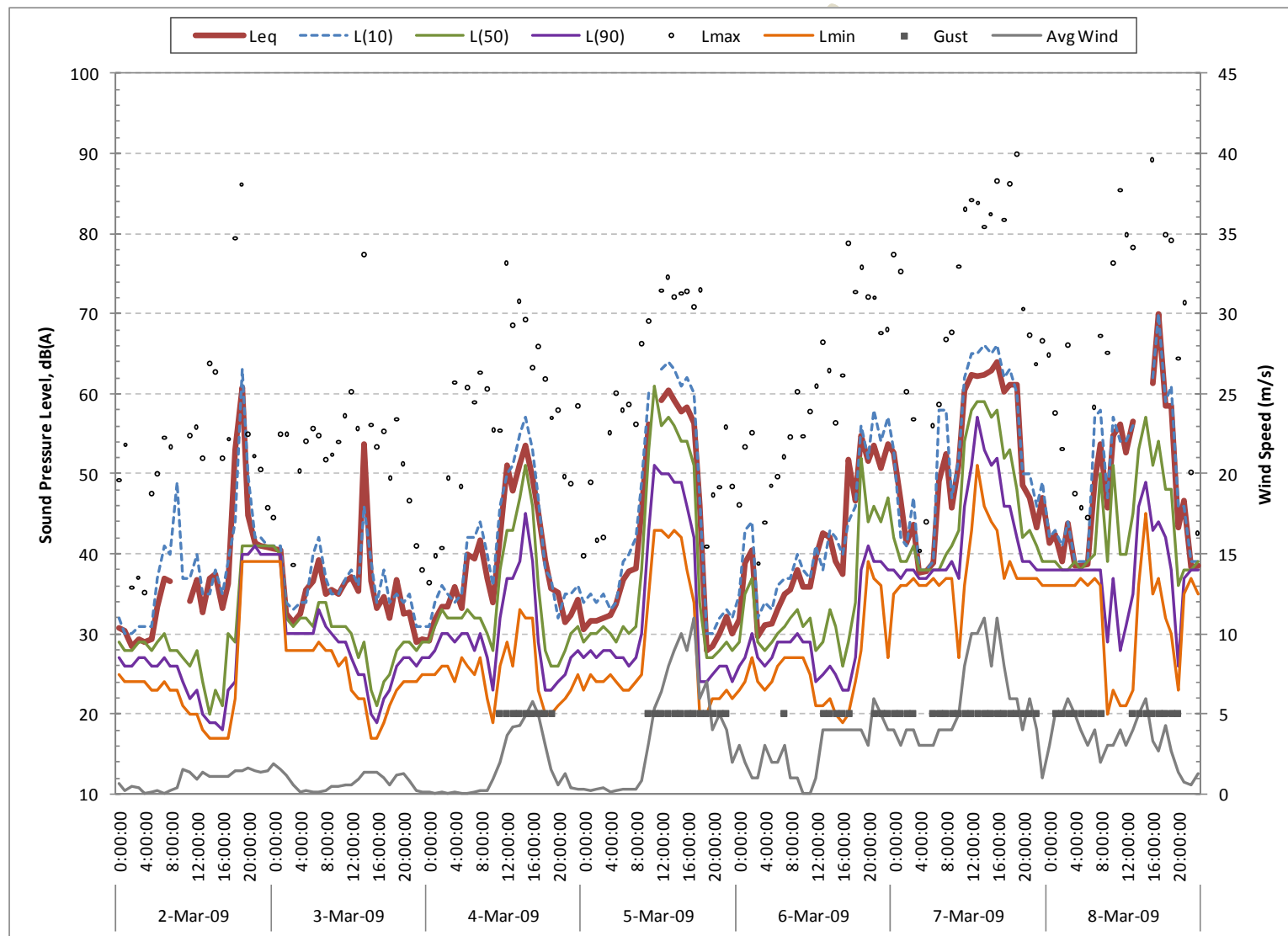


Figure B-4. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 2-March-2009

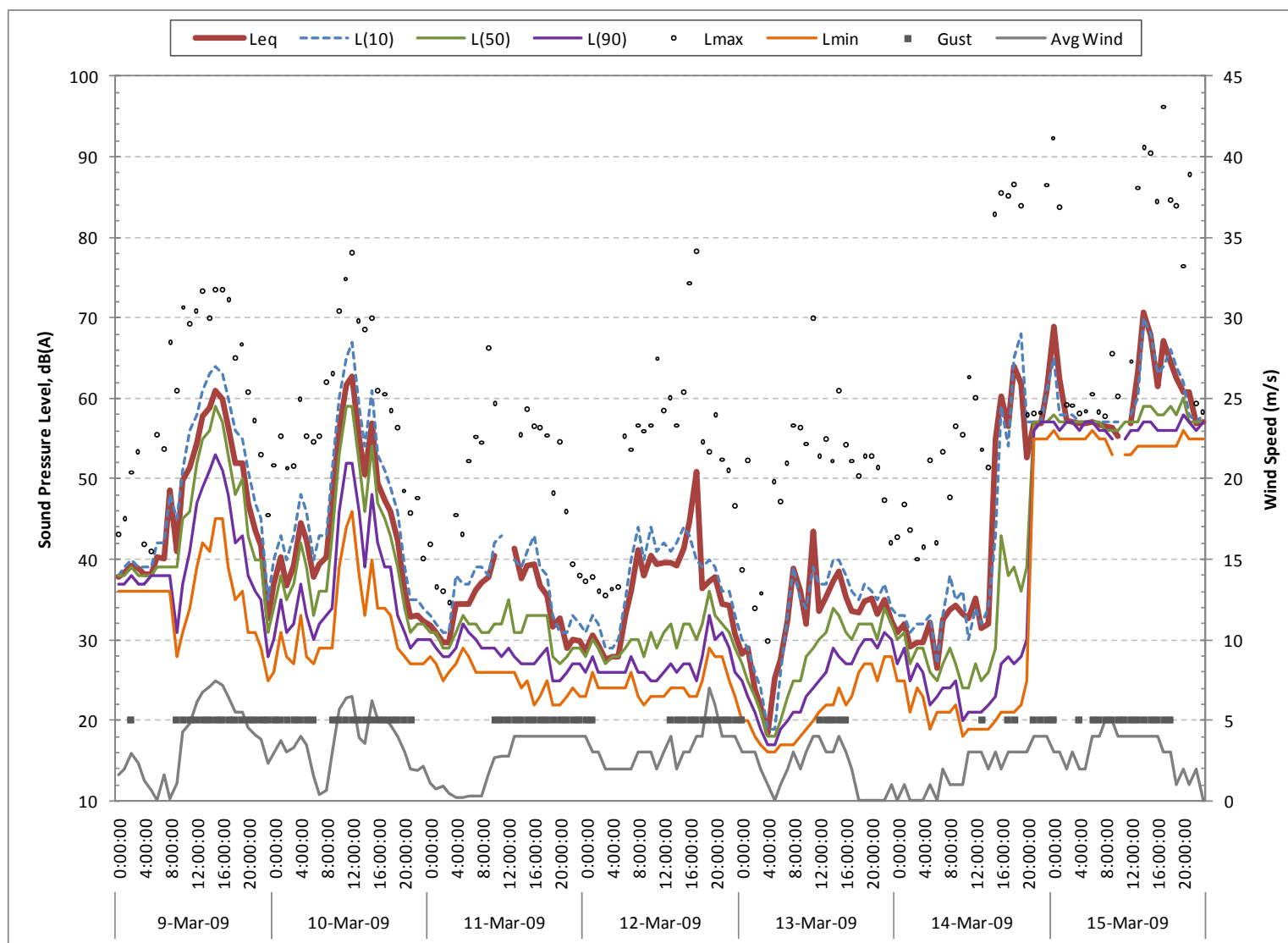


Figure B-4. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 9-March-2009

February 2011

Prepared for National Park Service

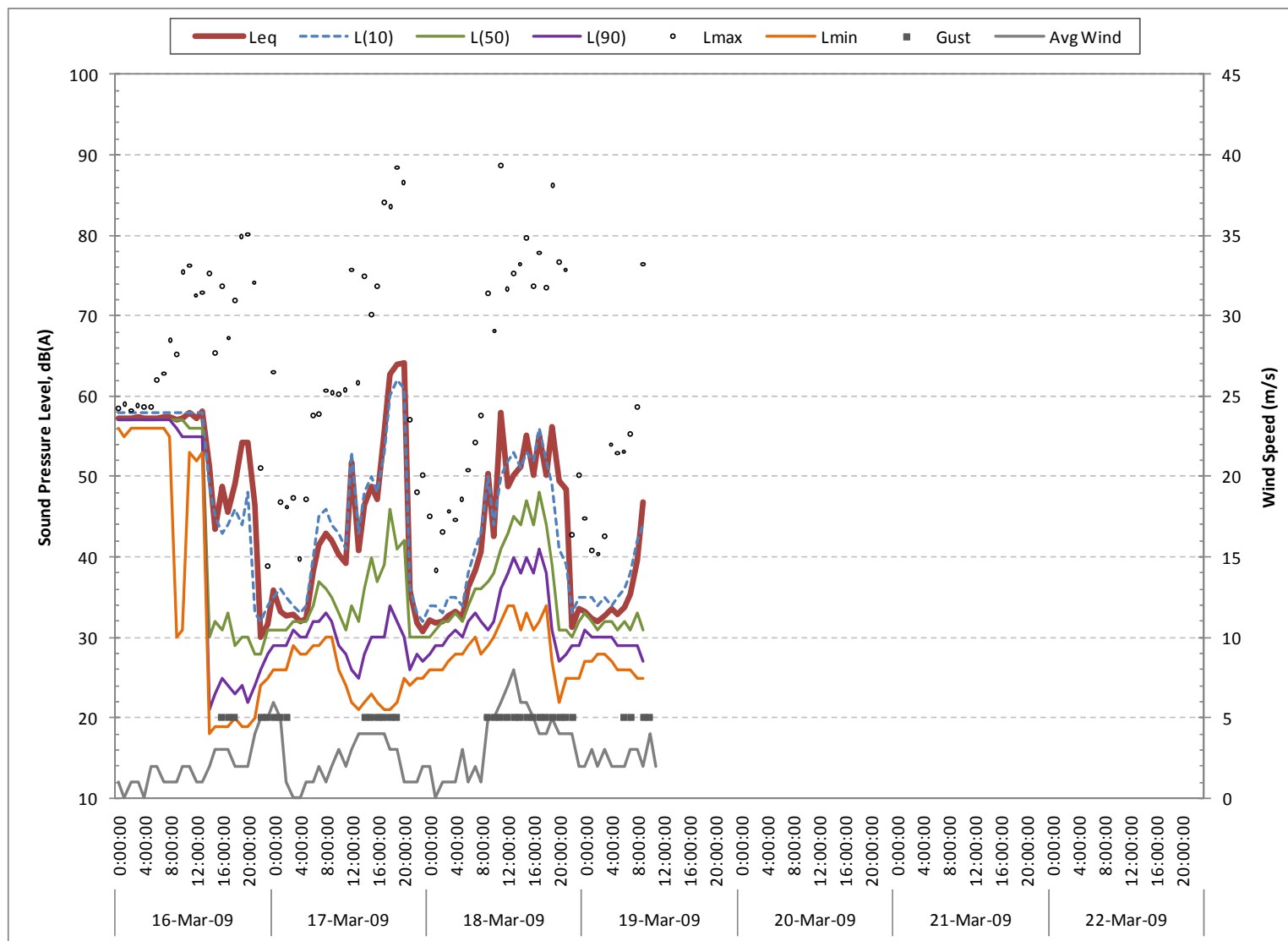


Figure B-5. Hourly A-weighted Sound Levels at Location LAMR001 for Week of 16-March-2009

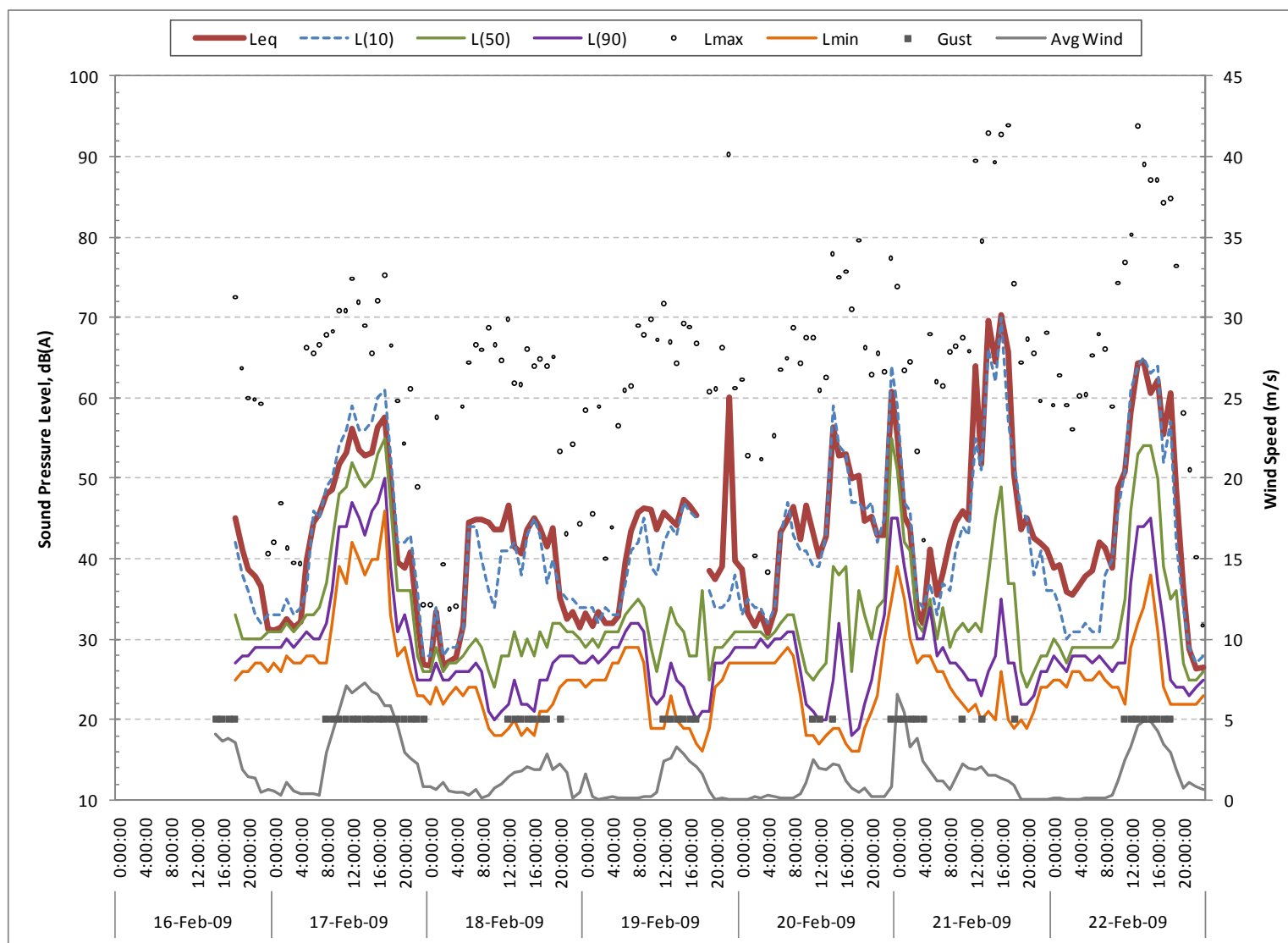


Figure B-6. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 16-February-2009

February 2011

Prepared for National Park Service

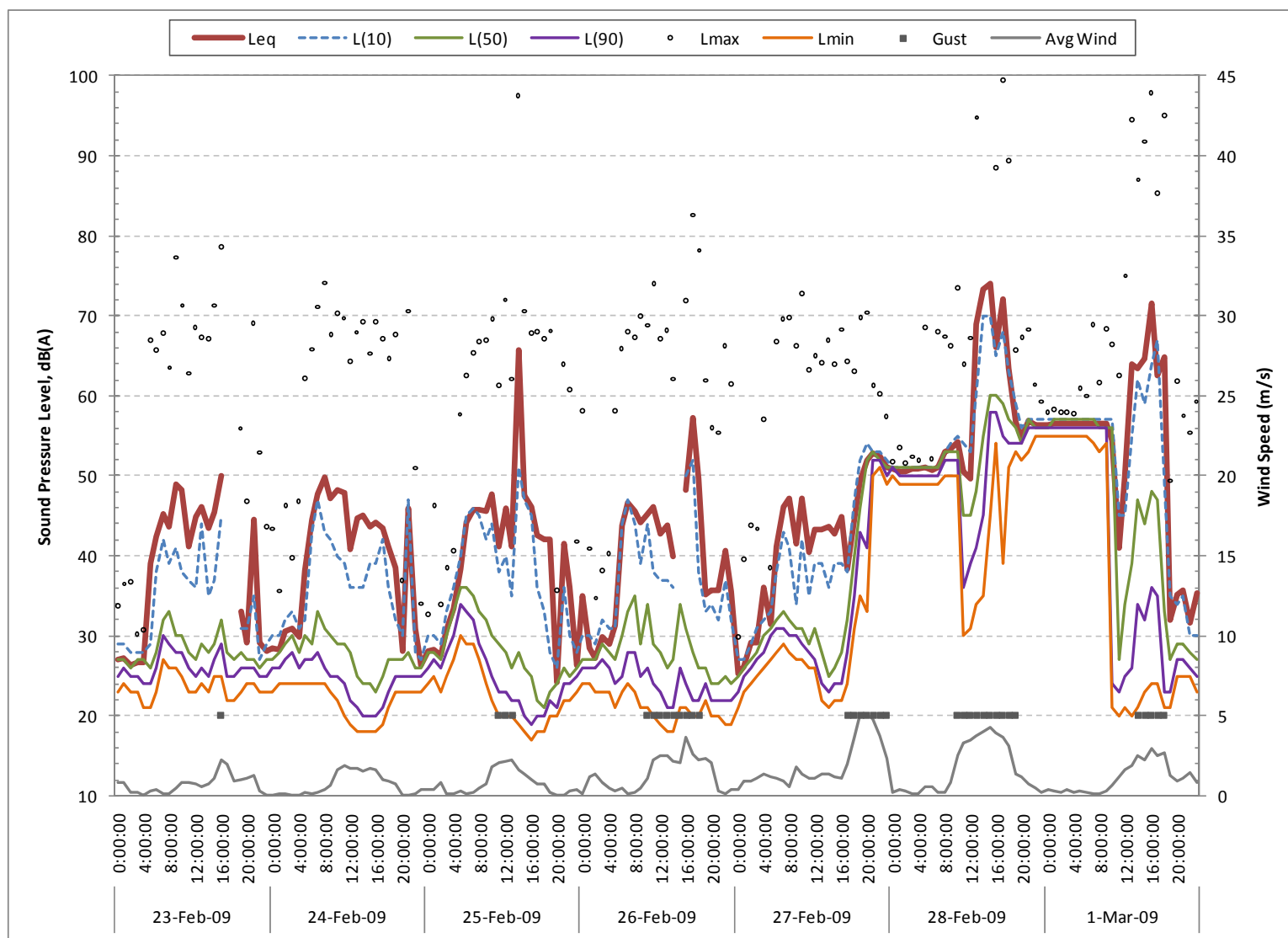


Figure B-7. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 23-February-2009

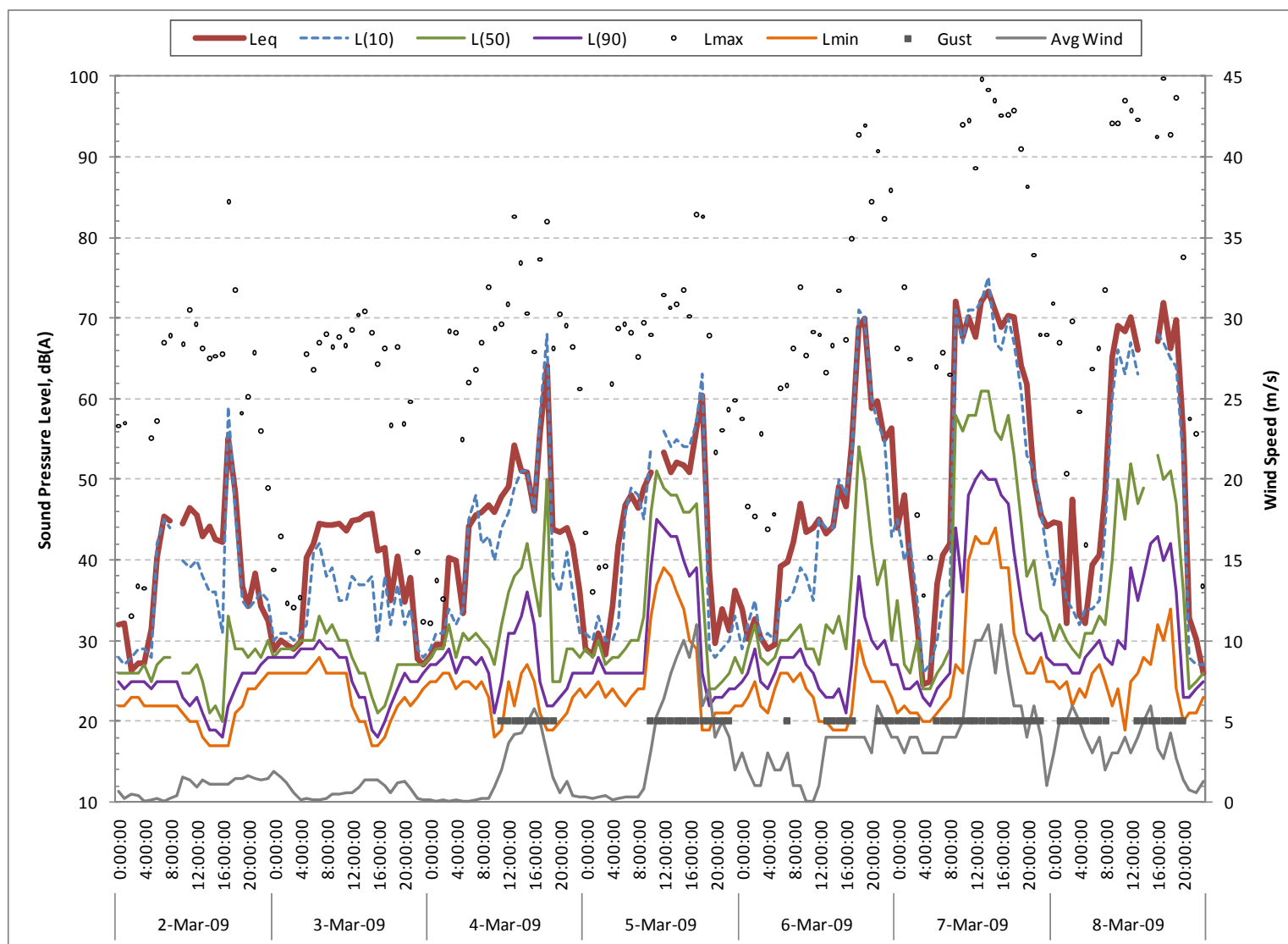


Figure B-8. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 2-March-2009

February 2011

Prepared for National Park Service

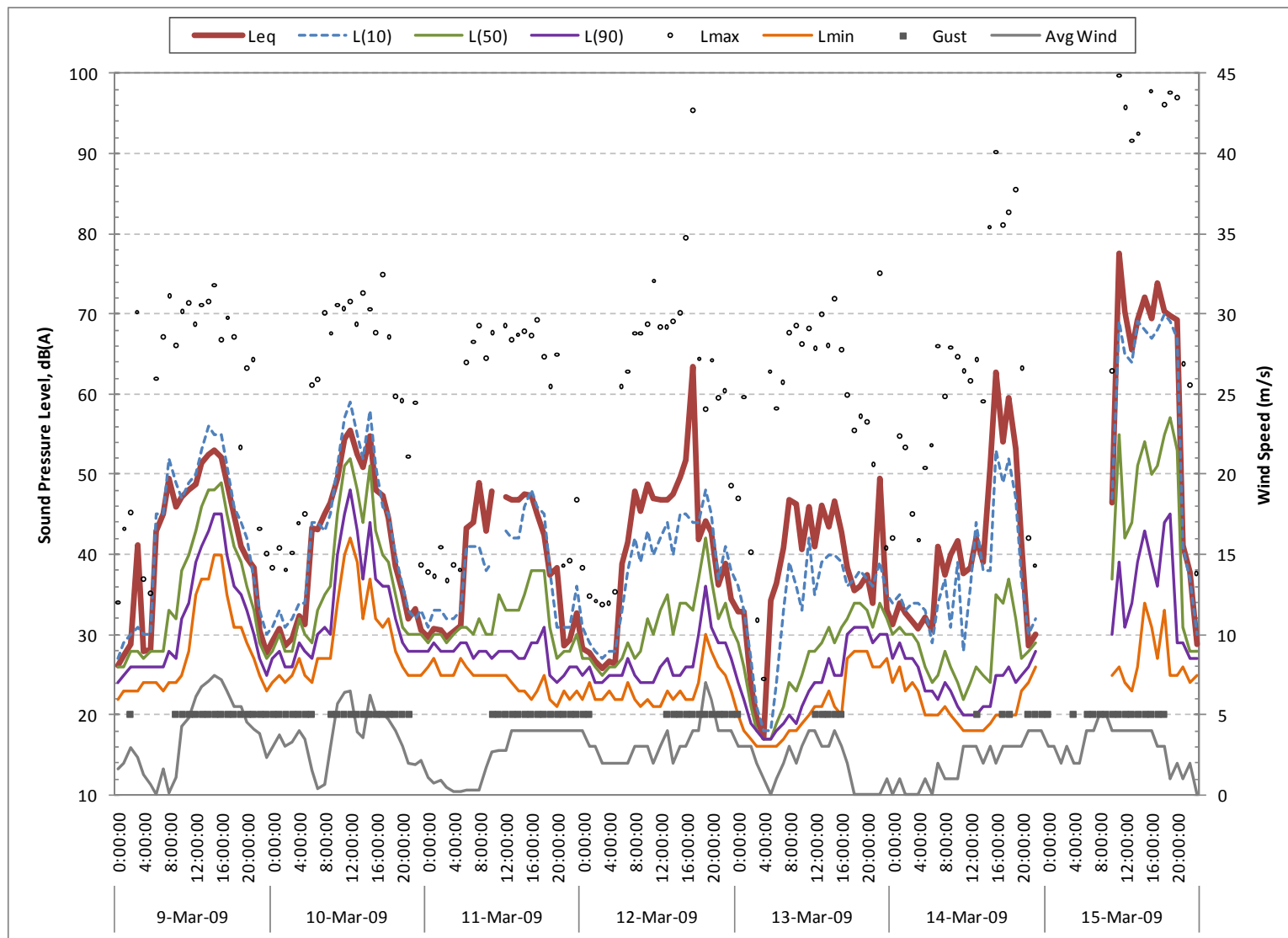


Figure B-9. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 9-March-2009

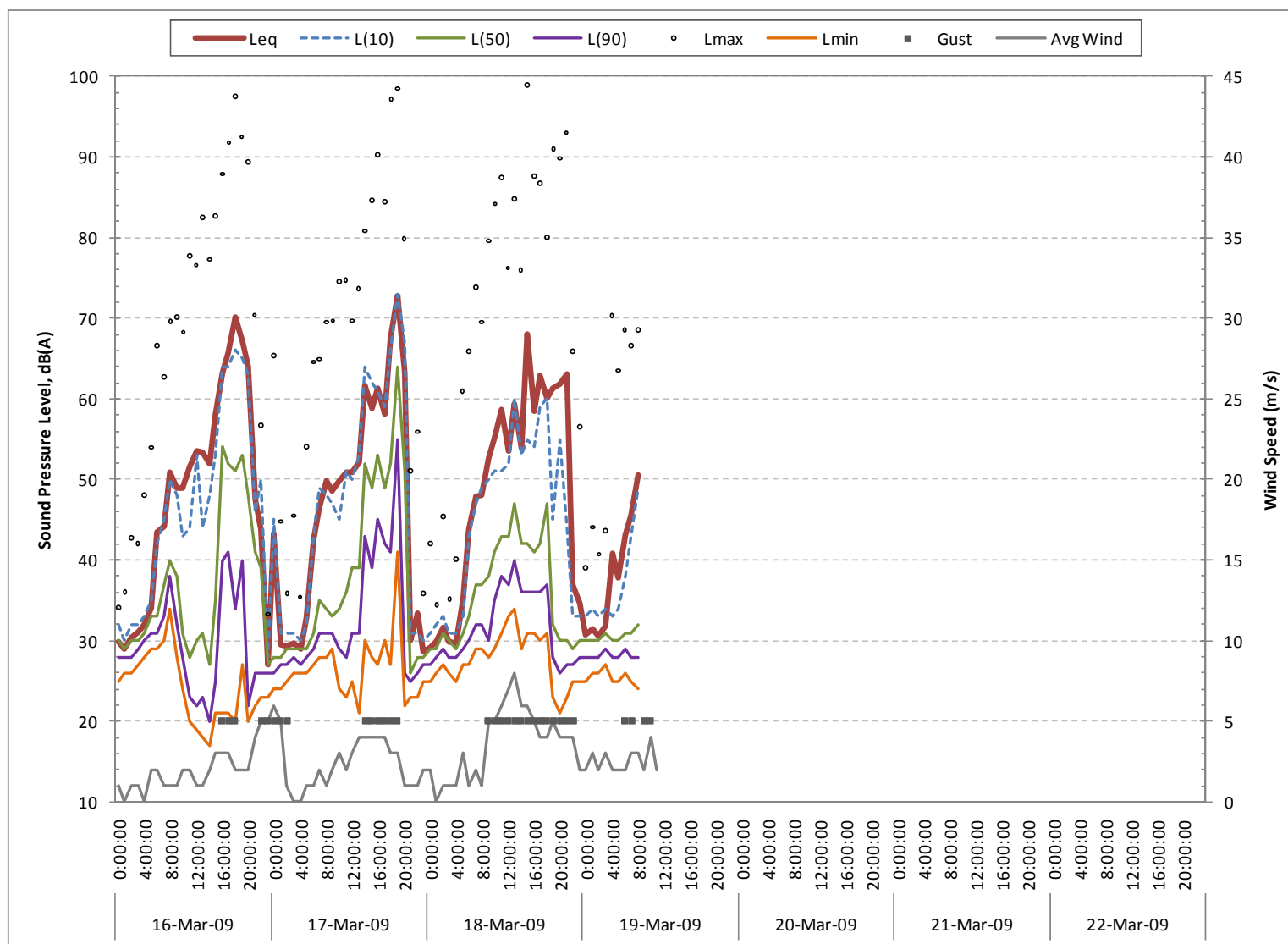


Figure B-10. Hourly A-weighted Sound Levels at Location LAMR002 for Week of 16-March-2009

February 2011

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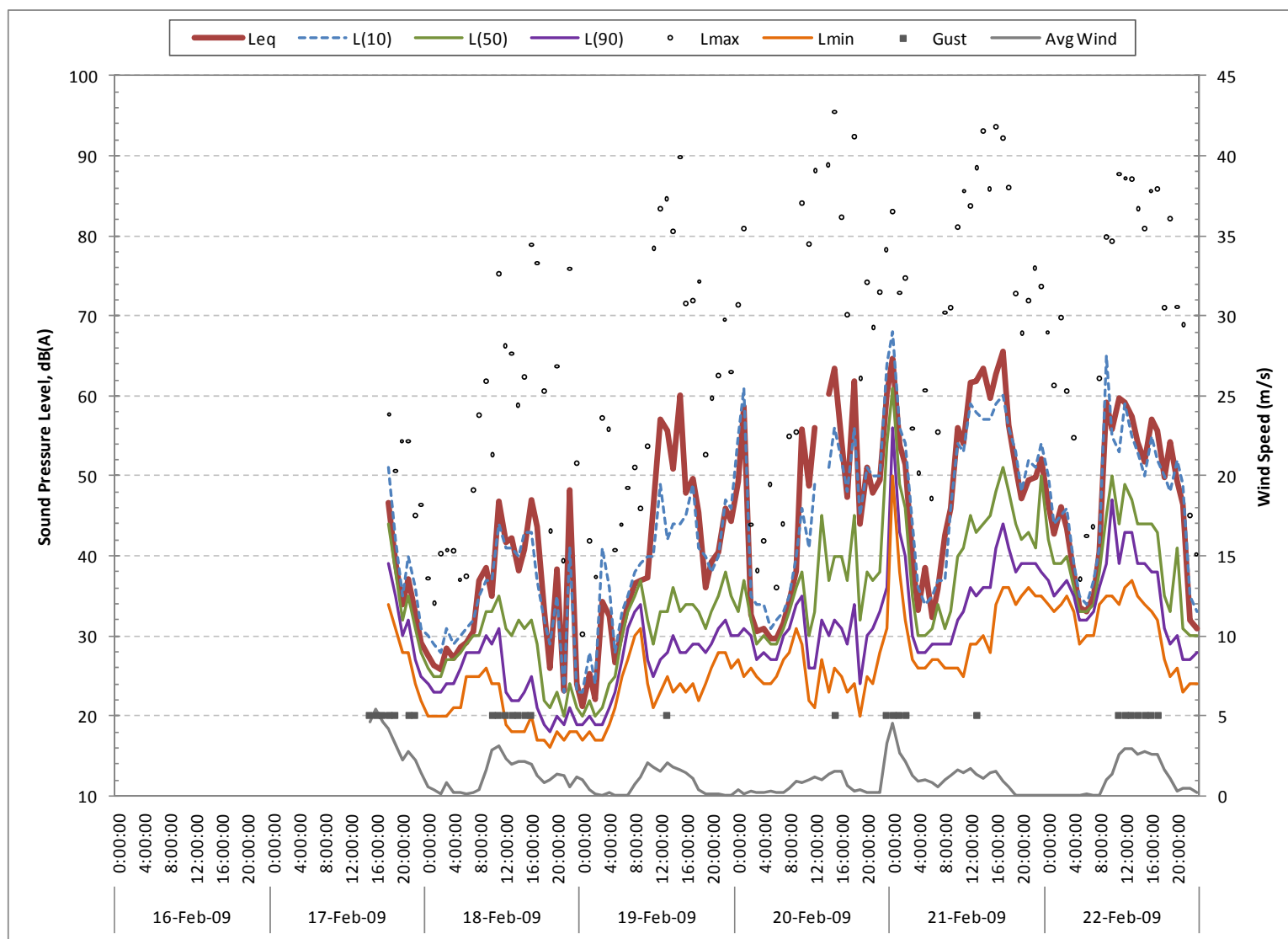


Figure B-11. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 16-February-2009

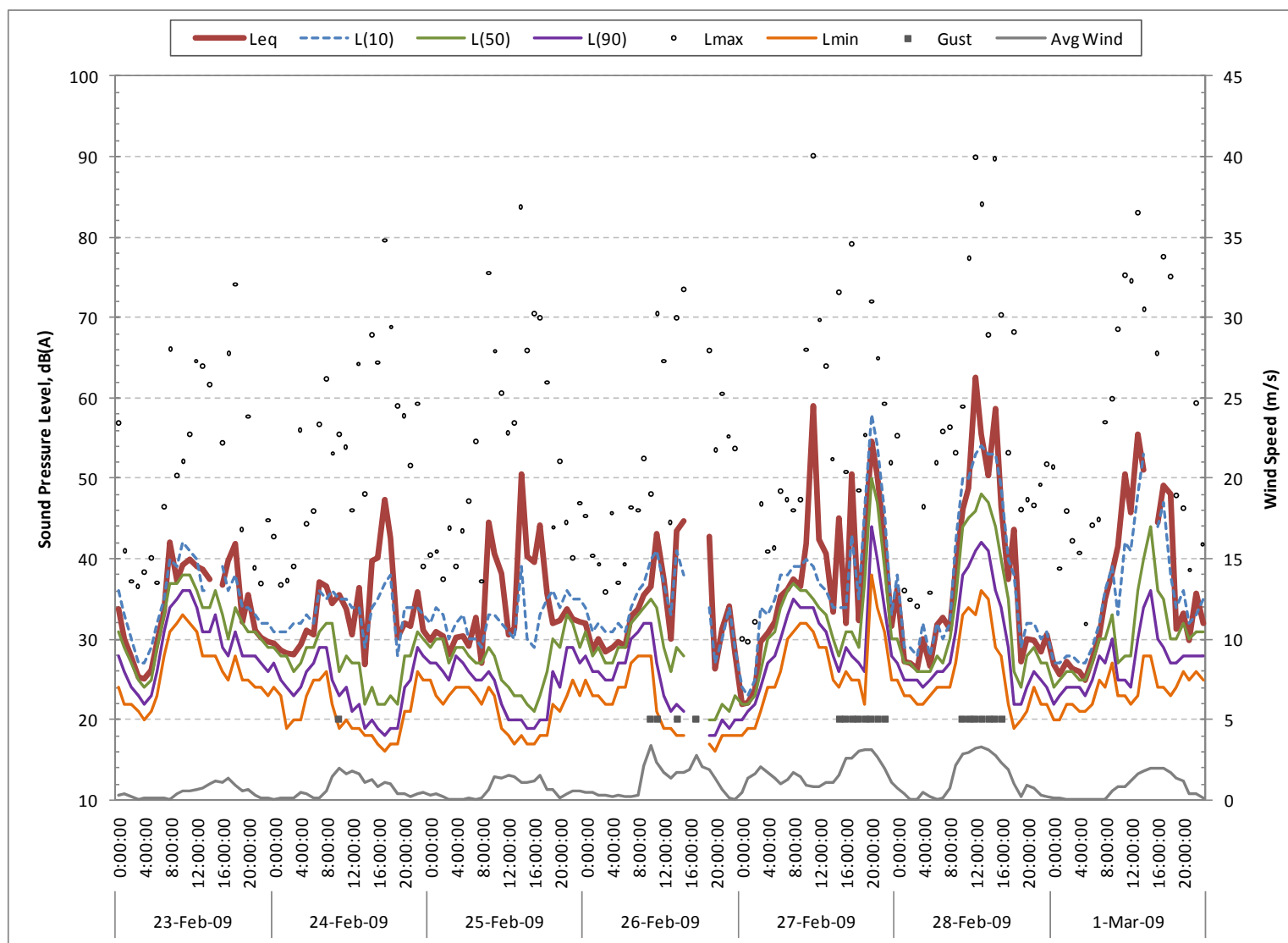


Figure B-12. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 23-February-2009

February 2011

Prepared for National Park Service

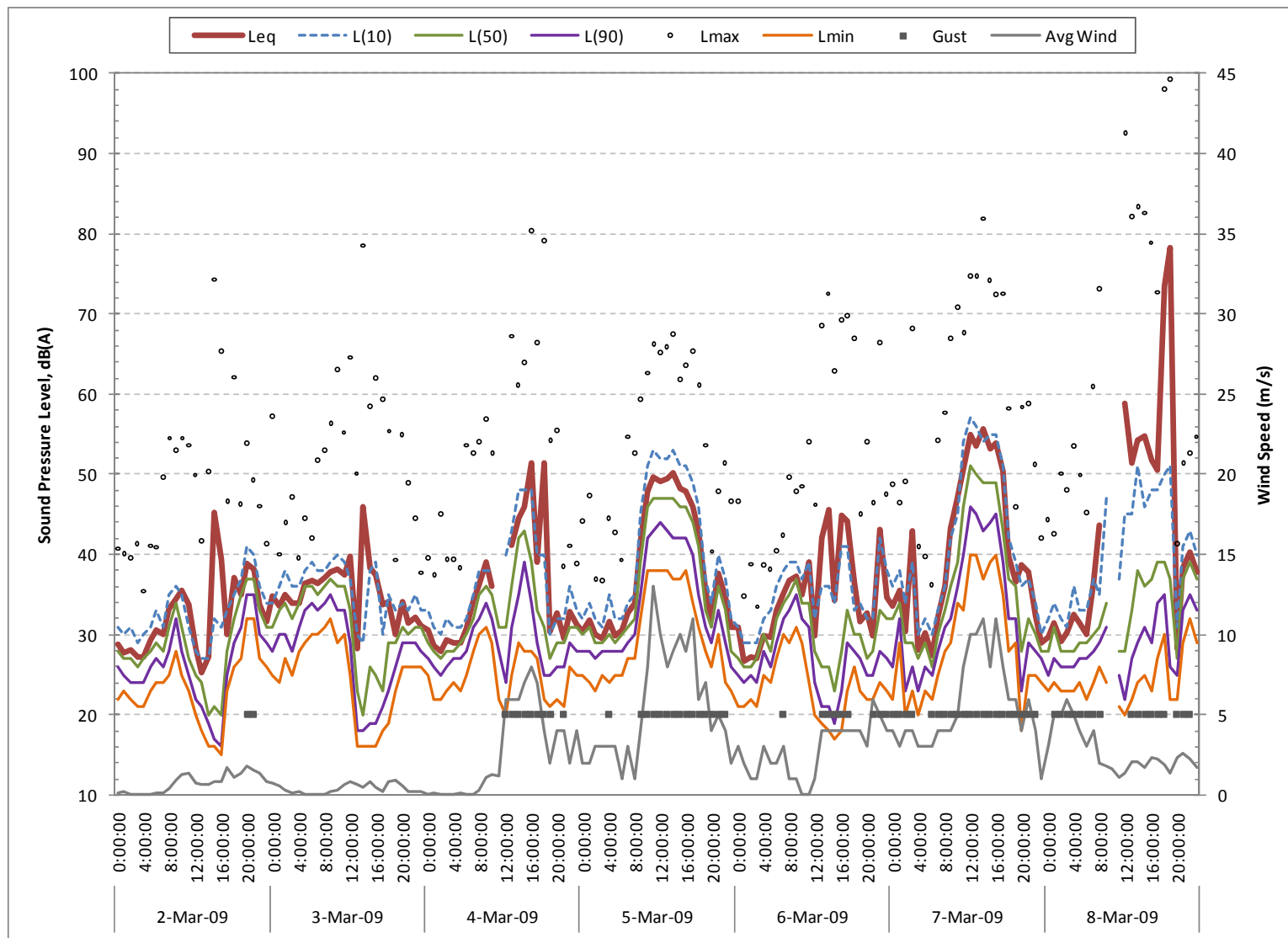


Figure B-13. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 2-March-2009

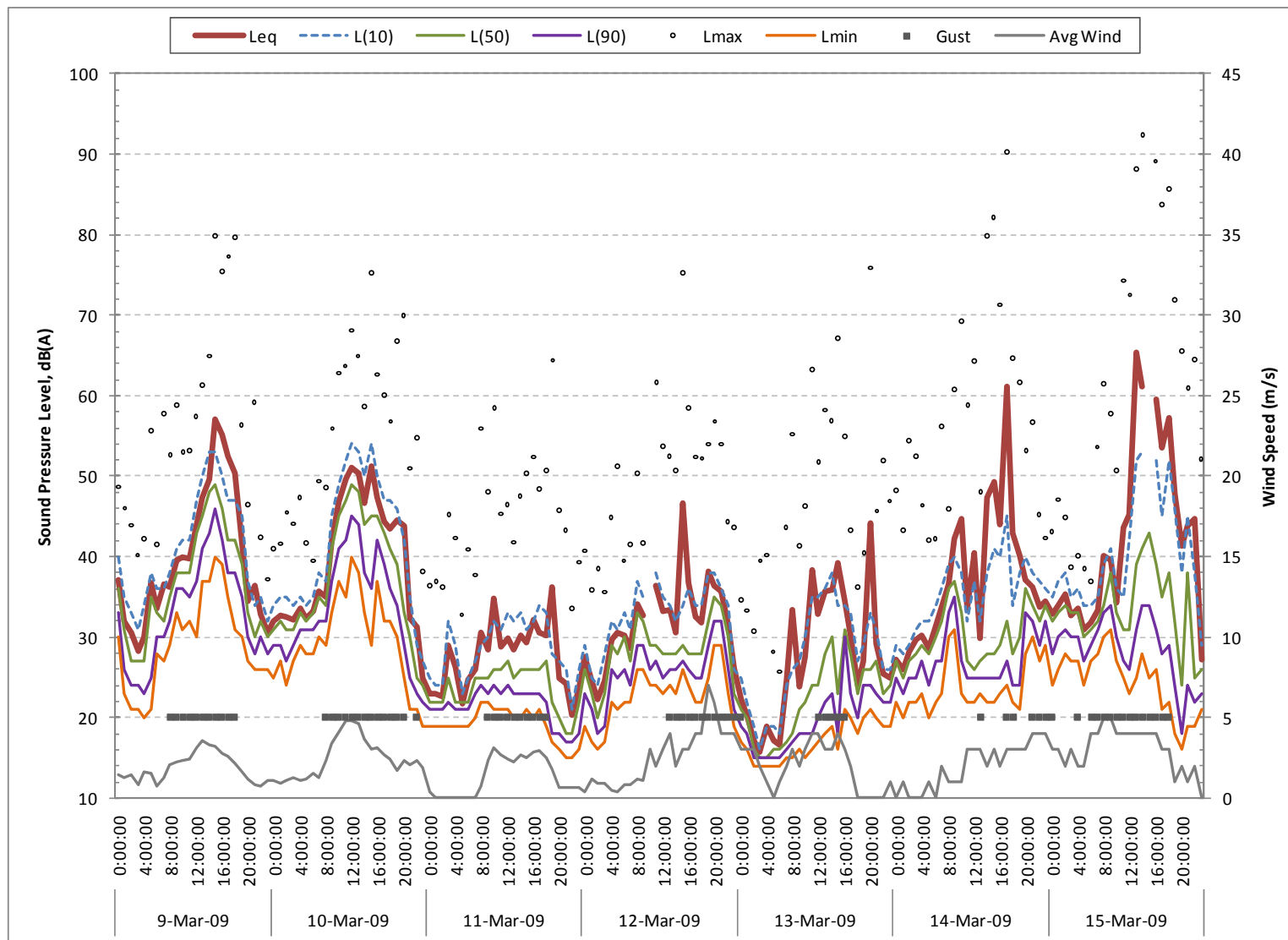


Figure B-14. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 9-March-2009

February 2011

Prepared for National Park Service

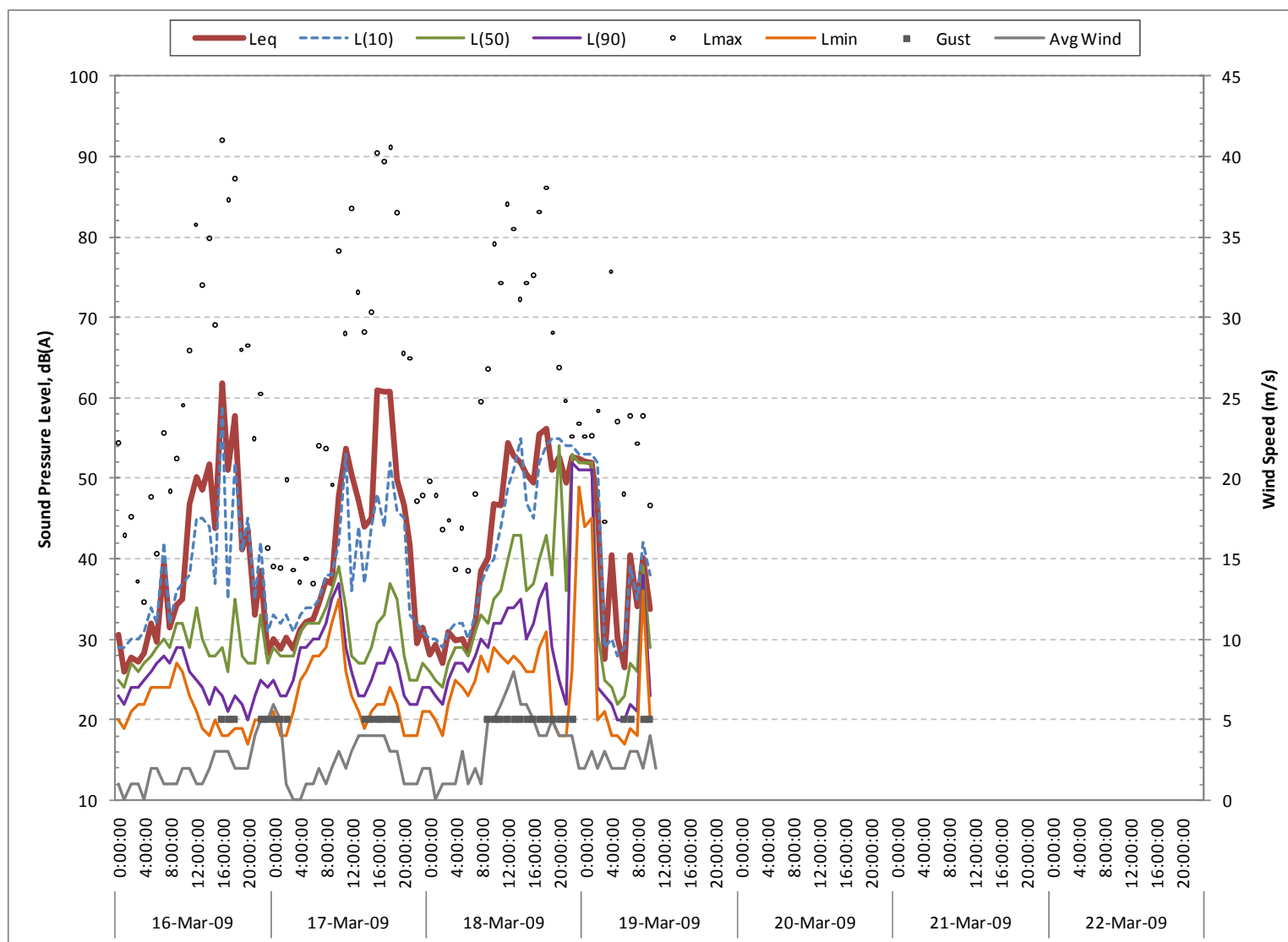


Figure B-15. Hourly A-weighted Sound Levels at Location LAMR003 for Week of 16-March-2009

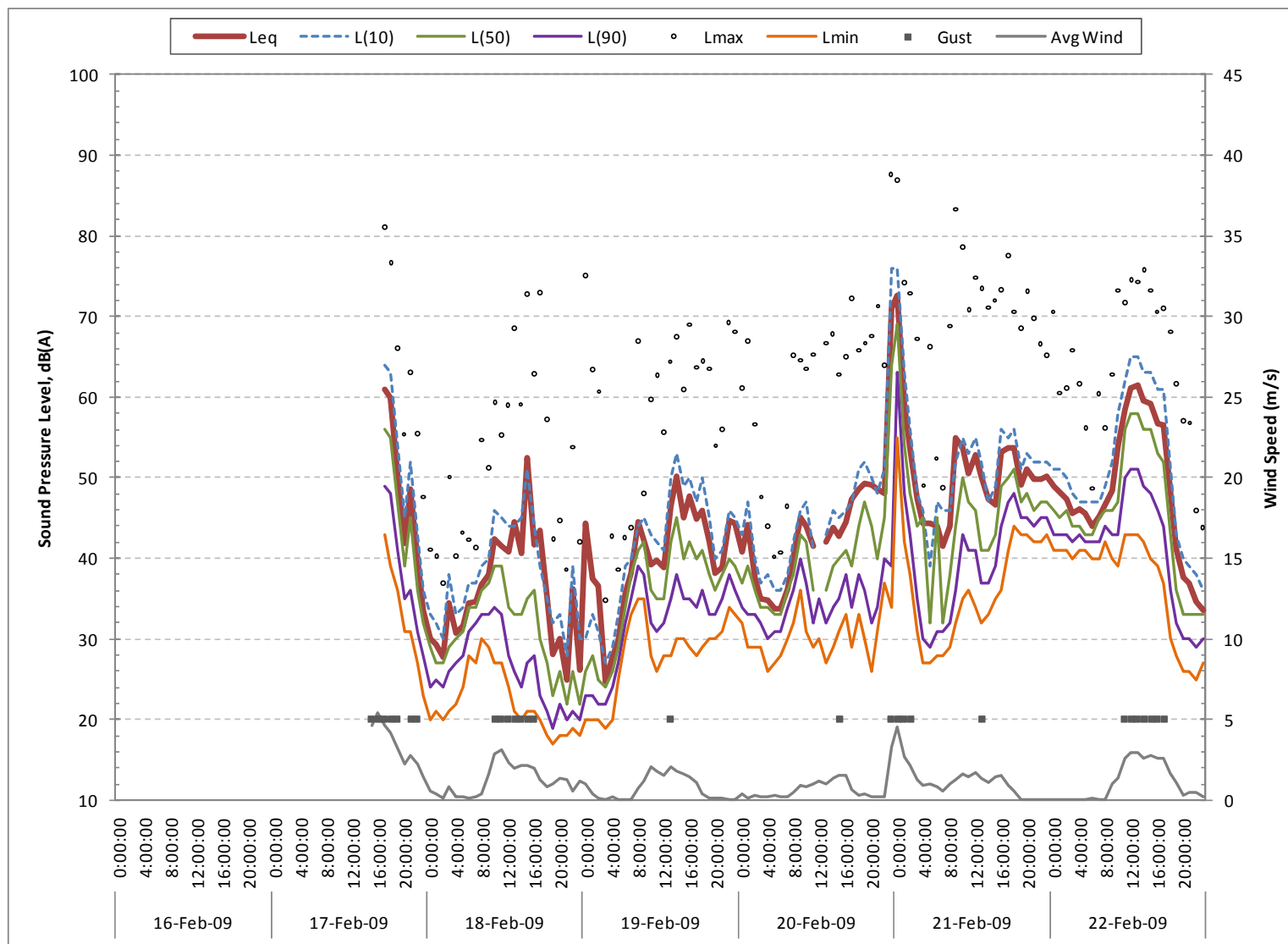


Figure B-16. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 16-February-2009

February 2011

Prepared for National Park Service

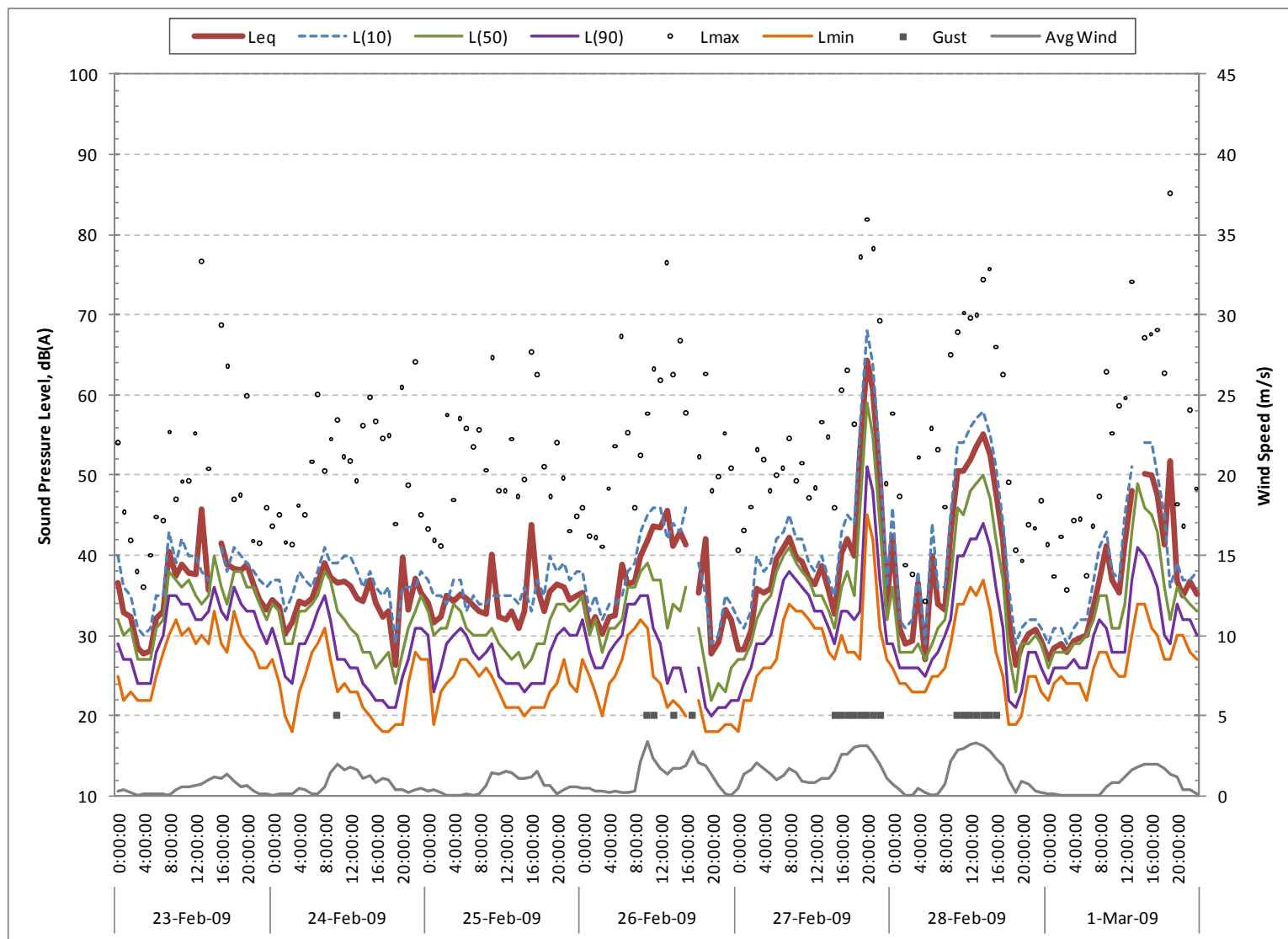


Figure B-17. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 23-February-2009

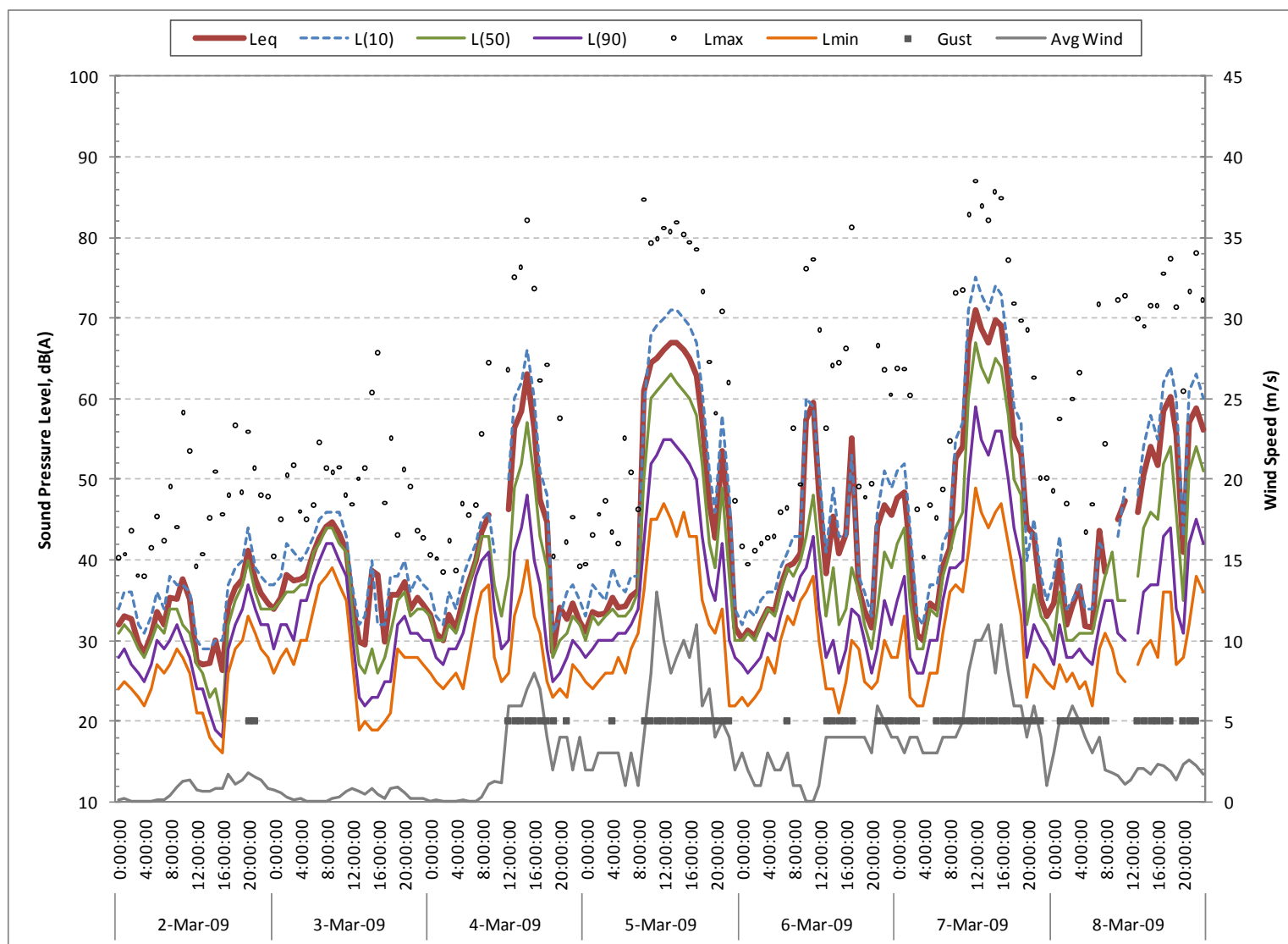


Figure B-18. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 2-March-2009

February 2011

Prepared for National Park Service

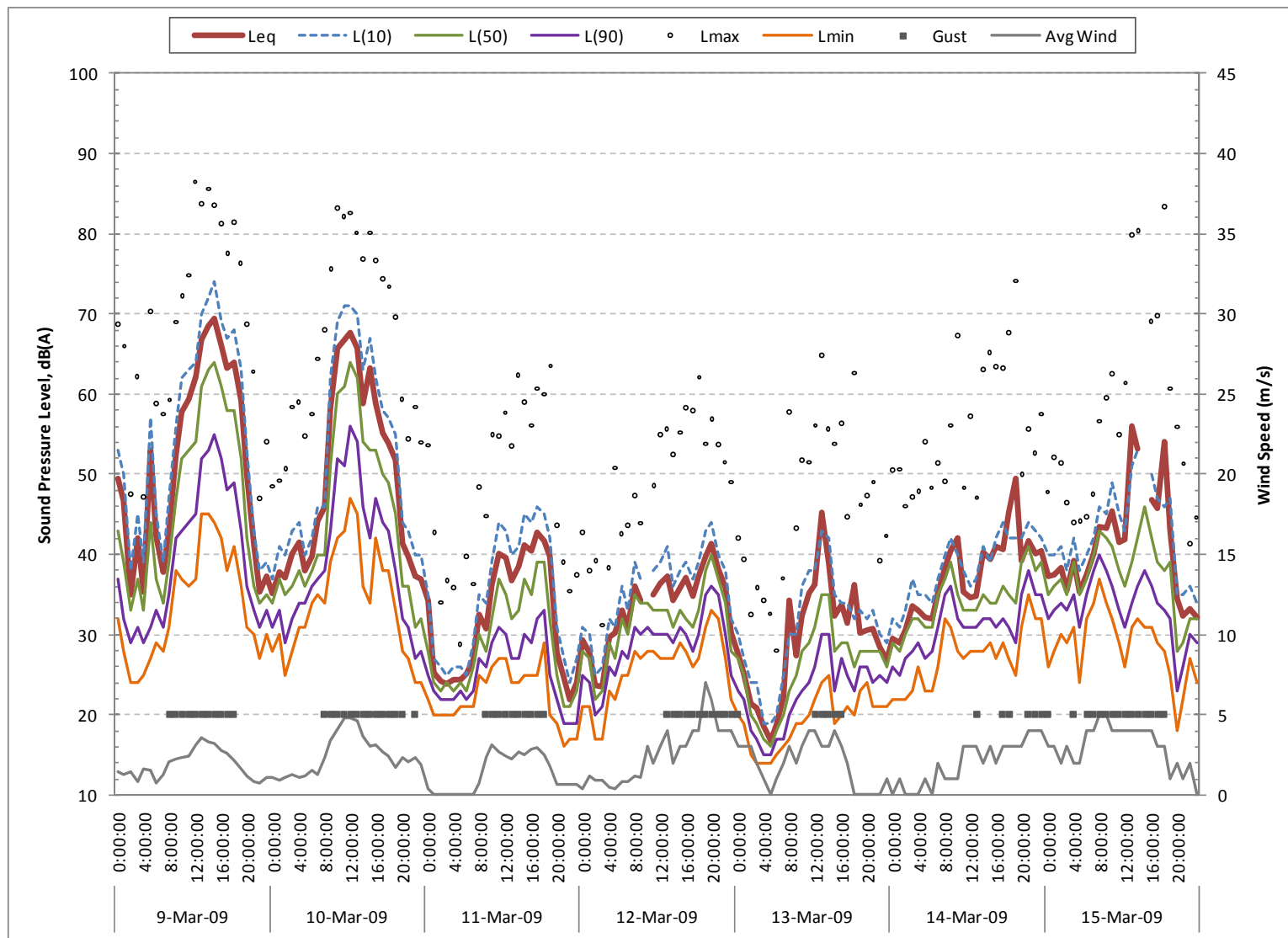


Figure B-19. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 9-March-2009

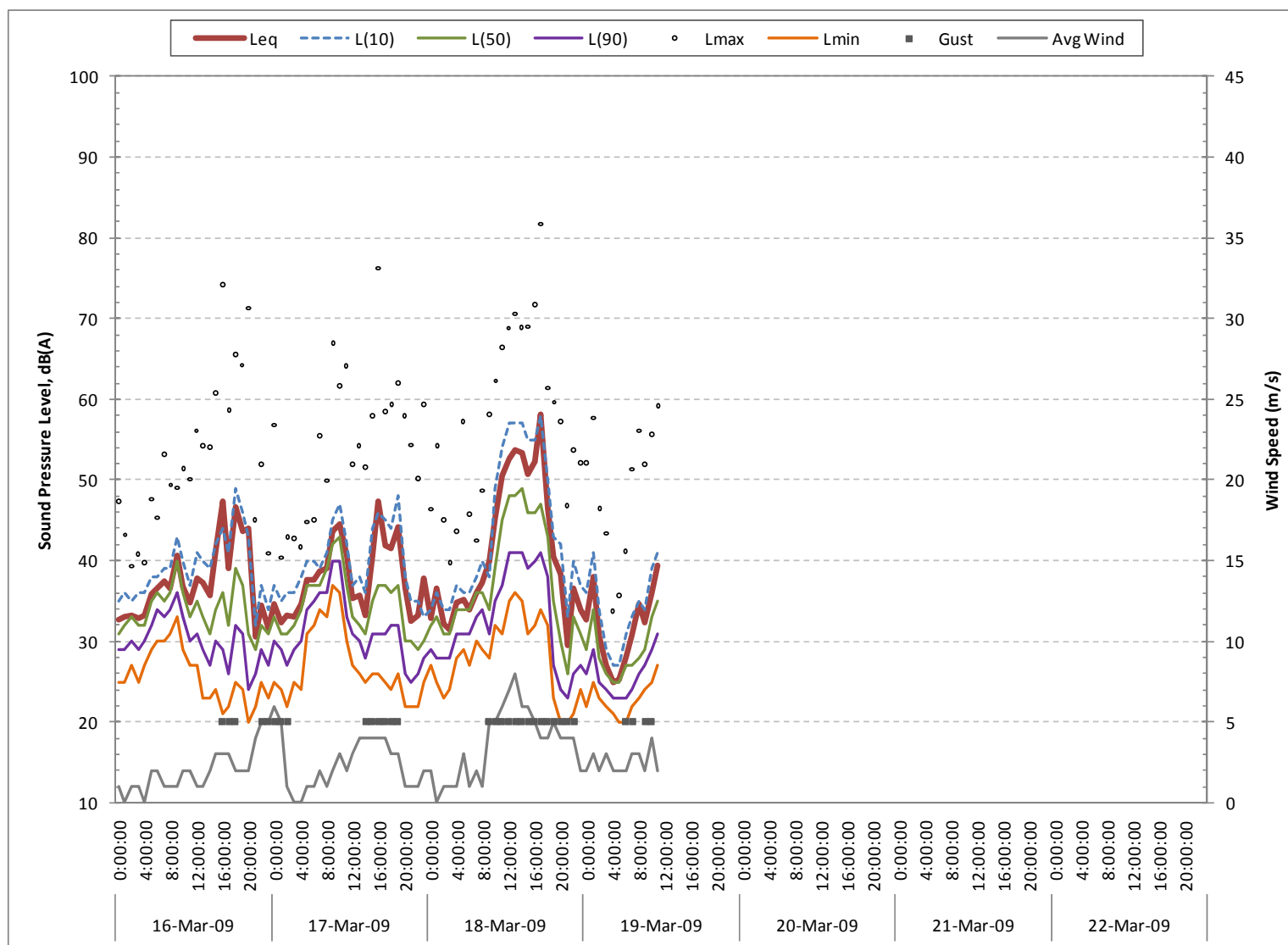


Figure B-20. Hourly A-weighted Sound Levels at Location LAMR004 for Week of 16-March-2009

February 2011

Prepared for National Park Service

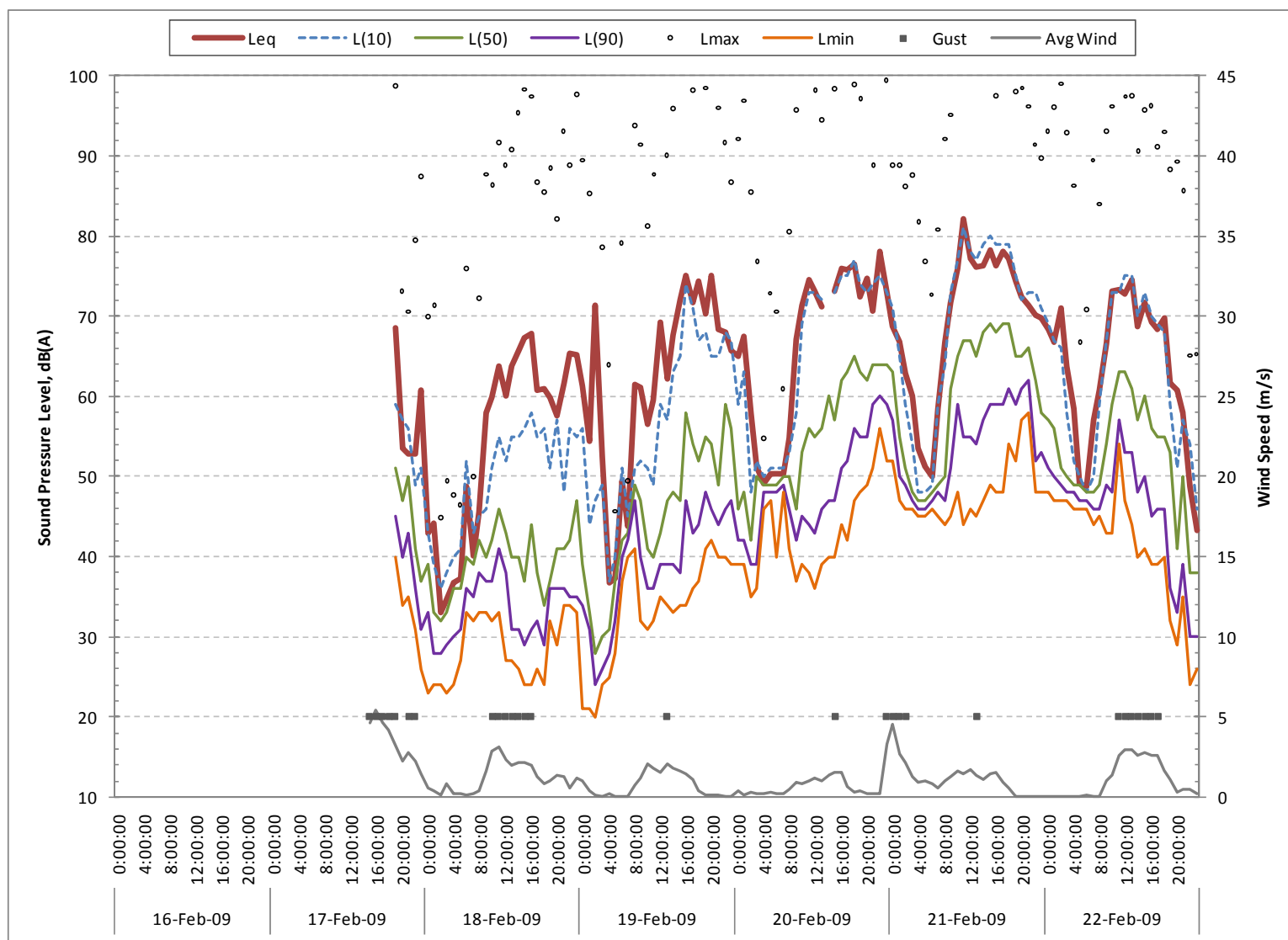


Figure B-21. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 16-February-2009

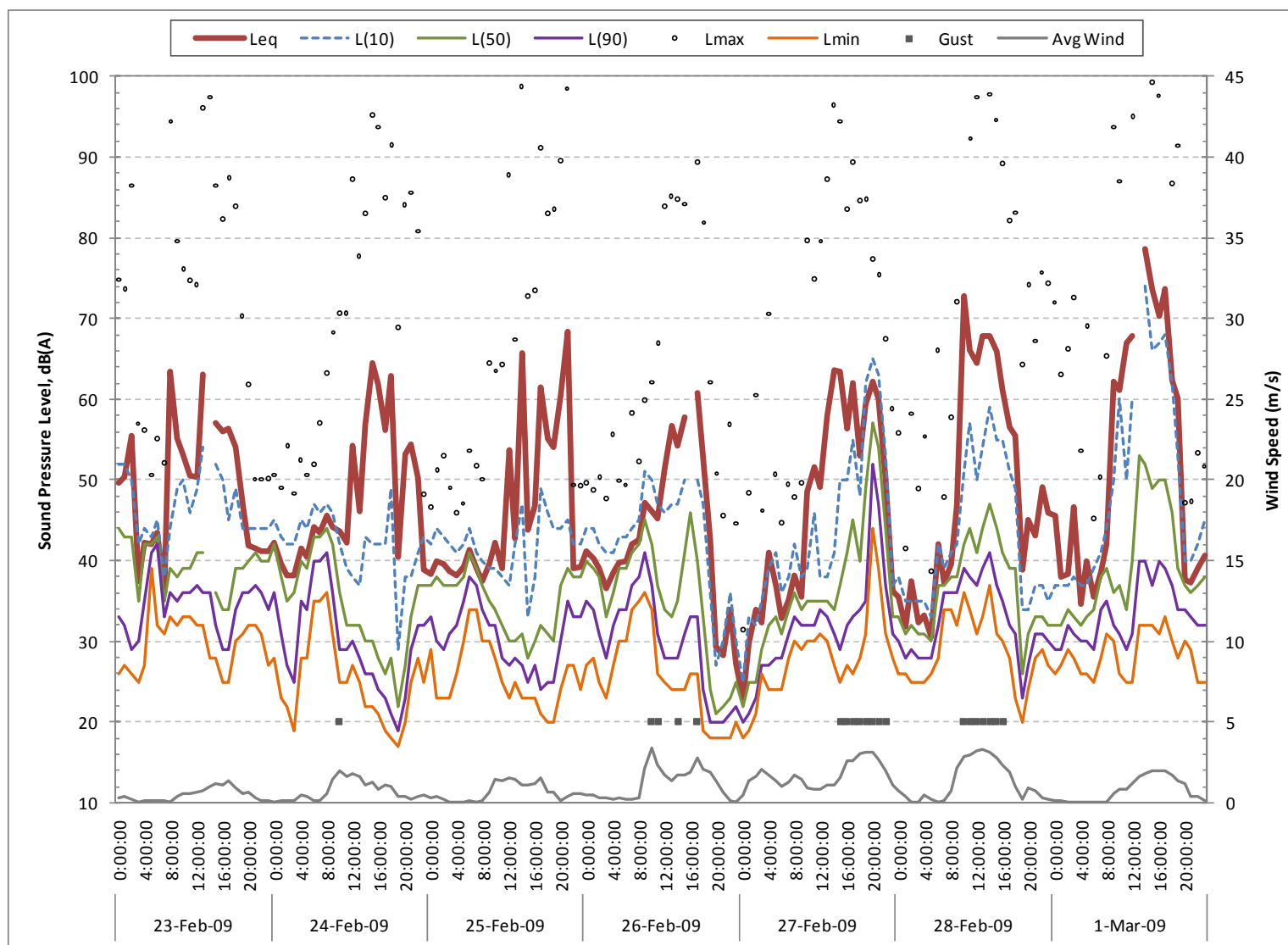


Figure B-22. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 23-February-2009

February 2011

Prepared for National Park Service

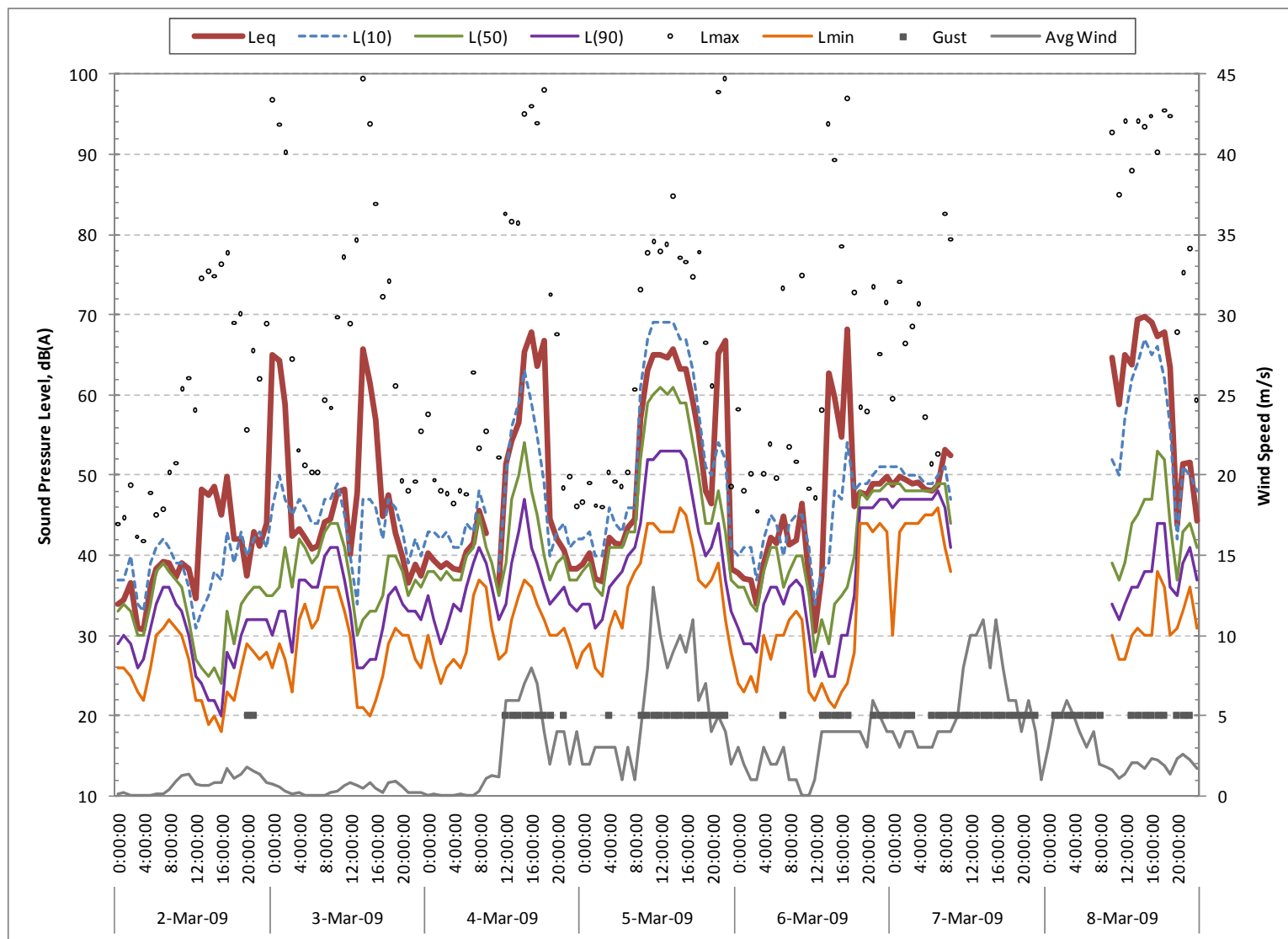


Figure B-23. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 2-March-2009

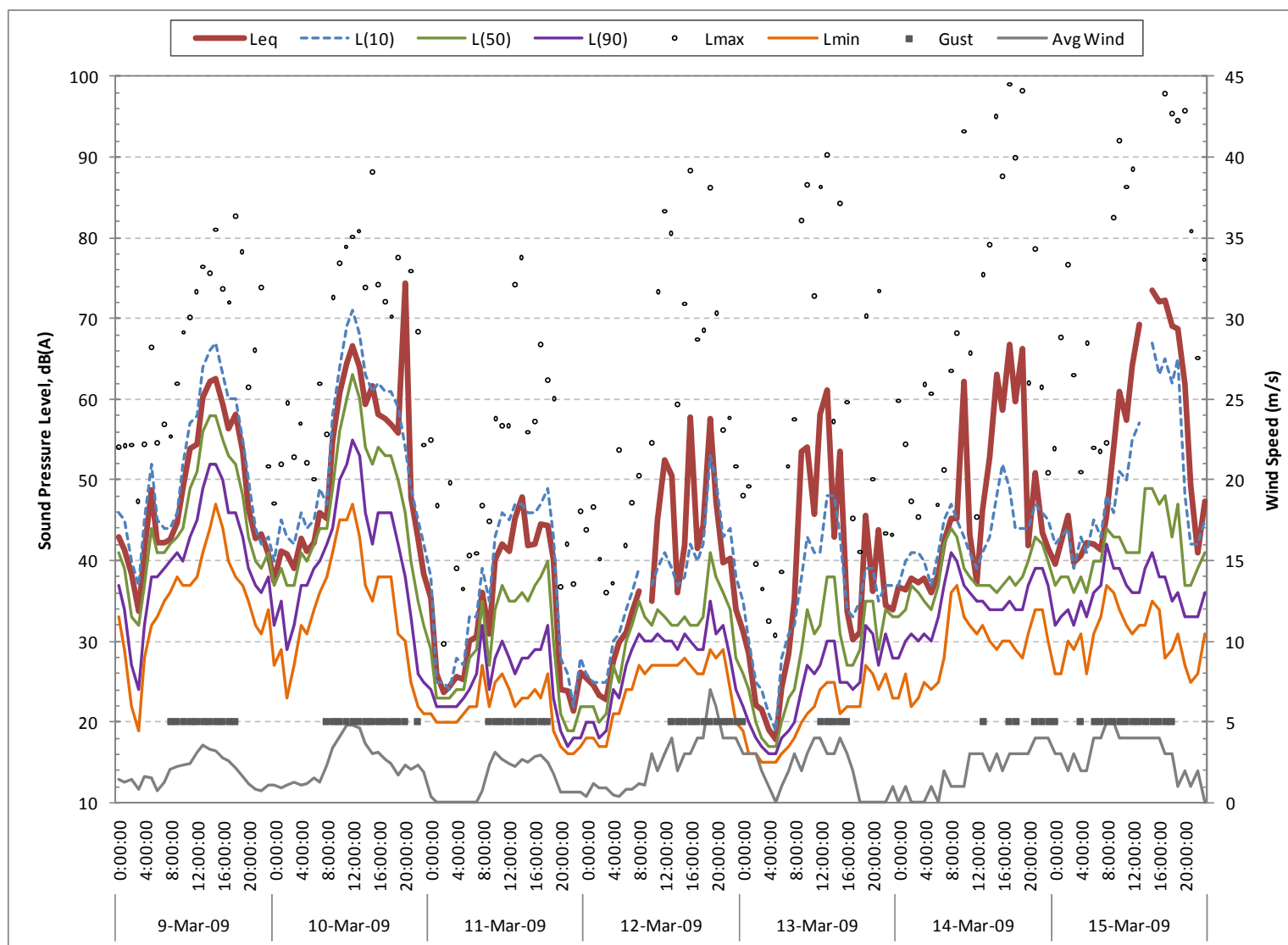


Figure B-24. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 9-March-2009

February 2011

Prepared for National Park Service

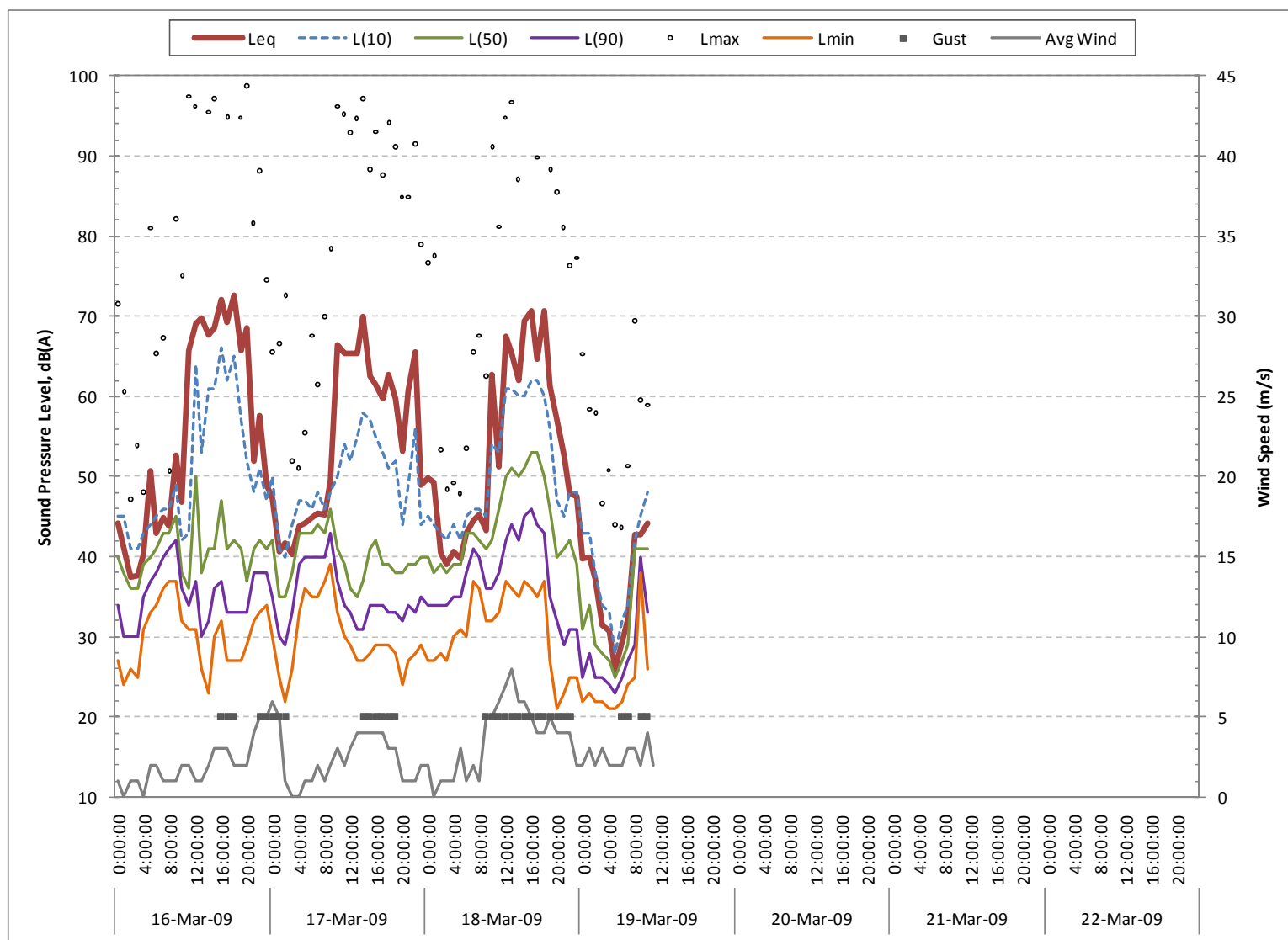


Figure B-25. Hourly A-weighted Sound Levels at Location LAMR005 for Week of 16-March-2009

Appendix C

2008 Hourly A-weighted Sound Level Tables

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

12-Nov-2008 Through 14-Nov-2008

Hour	Wednesday						Thursday						Friday					
	Nov-12-2008						Nov-13-2008						Nov-14-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00							35	41	38	35	32	31	41	49	44	38	34	31
01:00							37	44	40	36	33	31	31	35	32	30	29	28
02:00							36	42	39	35	32	31	31	34	32	30	29	28
03:00							37	43	39	36	33	32	32	35	33	31	30	29
04:00							36	42	38	35	32	31	32	38	33	31	30	29
05:00							37	48	38	34	31	30	33	39	34	32	31	30
06:00							39	49	41	35	32	29	41	53	41	34	31	30
07:00							41	52	44	36	33	32	39	45	41	37	35	33
08:00							37	46	40	34	31	30	40	48	43	38	34	32
09:00							40	52	42	32	30	29	41	50	44	38	31	29
10:00							38	51	38	31	29	28				48	38	33
11:00							44	54	46	34	28	25	51	60	54	49	43	40
12:00							55	65	49	36	28	25	53	61	57	50	45	42
13:00	43	55	46	35	27	24	48	59	49	37	29	26	52	59	55	49	43	37
14:00	40	52	43	33	25	23	57	68	54	40	29	25	53	61	57	52	46	42
15:00	35	46	38	32	28	24	52	62	48	38	32	28	53	61	56	50	44	41
16:00	37	46	41	34	29	26	40	50	44	33	26	24	51	59	55	50	45	42
17:00	39	50	42	35	30	27	39	51	39	34	30	27	44	55	48	37	30	26
18:00	36	46	38	31	26	24	38	49	40	31	26	25	30	40	32	28	26	25
19:00	35	47	34	30	27	24	39	51	38	29	26	24	30	37	31	28	26	26
20:00	33	43	35	31	29	28	34	45	36	31	28	27	30	38	33	28	27	26
21:00	34	43	36	32	30	29	32	41	33	31	29	27	29	35	31	29	27	26
22:00	34	39	36	33	31	29	32	37	34	31	28	26	31	37	32	29	28	27
23:00	34	39	36	33	31	29	32	40	35	30	29	28	30	35	32	29	28	27
LD, dB(A)	38						49						49					
LN, dB(A)	34						36						36					
DNL, dB(A)							48						48					
Lmean, dB(A)	38						47						47					
Hours (Day)	9						15						14					
Hours (Night)	2						9						9					
Hours (Total)	11						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

15-Nov-2008 Through 17-Nov-2008

Hour	Saturday						Sunday						Monday					
	Nov-15-2008						Nov-16-2008						Nov-17-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	30	34	32	30	28	27												
01:00	31	36	33	30	28	27												
02:00	30	34	31	29	28	26												
03:00	31	35	33	30	28	27												
04:00	29	33	30	28	26	25												
05:00	30	34	32	29	28	27												
06:00	31	39	33	29	27	26												
07:00	31	41	32	29	27	26												
08:00	30	38	32	29	27	26												
09:00	36	45	39	34	29	27												
10:00	41	43	39	35	30	28												
11:00	34	41	37	32	28	24							37	45	40	35	29	27
12:00	38	49	36	30	26	24							36	45	40	33	28	26
13:00	56	69	53	37	31	26							39	47	40	34	28	26
14:00	62	73	61	46	33	28							40	47	42	38	33	31
15:00	59	71	58	37	31	26							38	48	41	35	30	26
16:00	62	76	63	48	35	32							38	47	41	35	27	24
17:00	50	63	49	37	26	24							35	48	37	26	22	21
18:00	35	48	34	27	25	23							33	44	33	24	22	21
19:00	28	35	30	26	24	23							27	39	29	22	21	20
20:00	33	41	36	30	27	25							36	48	33	28	24	23
21:00	31	37	34	30	27	25							30	33	31	29	28	27
22:00	32	40	33	30	28	27							33	38	36	32	29	29
23:00	34	42	35	31	29	28							32	37	34	32	30	29
LD, dB(A)	55												36					
LN, dB(A)	31												33					
DNL, dB(A)	53																	
Lmean, dB(A)	53												36					
Hours (Day)	15						0						11					
Hours (Night)	9						0						2					
Hours (Total)	24						0						13					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

18-Nov-2008 Through 20-Nov-2008

Hour	Tuesday Nov-18-2008						Wednesday Nov-19-2008						Thursday Nov-20-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													28	32	29	27	25	24
01:00													31	39	34	30	28	27
02:00													41	51	44	38	33	30
03:00													48	57	52	44	37	33
04:00													53	62	56	50	44	39
05:00													53	62	57	50	44	41
06:00													50	58	53	46	40	37
07:00													53	62	57	50	44	40
08:00													50	59	53	47	42	39
09:00													52	60	55	49	43	41
10:00																		
11:00													52	61	56	50	44	41
12:00													50	59	54	47	42	36
13:00							36	51	35	23	19	18	49	58	52	46	40	35
14:00							38	48	40	27	21	19	48	57	52	45	39	36
15:00							35	48	37	22	18	17	45	52	48	43	37	33
16:00							32	44	35	23	19	18	41	50	44	38	31	27
17:00							37	49	39	33	22	20	40	49	44	37	31	29
18:00							36	48	36	32	26	23	42	54	43	36	33	32
19:00							36	45	38	34	29	27	36	43	37	33	32	31
20:00							34	44	35	31	25	20	34	43	33	32	31	30
21:00							33	43	34	31	28	26	32	44	33	25	23	22
22:00							34	43	34	31	27	26	25	33	26	24	23	22
23:00							29	38	30	27	25	24	28	37	26	25	23	22
LD, dB(A)							36						48					
LN, dB(A)							32						48					
DNL, dB(A)													54					
Lmean, dB(A)							35						48					
Hours (Day)	0						9						14					
Hours (Night)	0						2						9					
Hours (Total)	0						11						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

21-Nov-2008 Through 23-Nov-2008

Hour	Friday						Saturday						Sunday					
	Nov-21-2008						Nov-22-2008						Nov-23-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	26	27	26	25	24	24	35	41	37	34	33	32	48	50	49	48	47	47
01:00	25	27	26	25	24	23	35	40	37	34	32	31	48	49	49	48	47	47
02:00	26	30	26	25	24	23	34	39	36	33	30	29	48	49	48	48	47	47
03:00	28	37	27	26	25	24	33	43	35	32	29	28	48	49	48	48	47	47
04:00	29	42	27	26	25	25	34	43	34	32	30	29	48	50	49	48	47	47
05:00	31	44	29	27	26	25	46	56	49	38	34	32	48	51	49	48	47	47
06:00	35	46	39	30	28	27	37	47	40	34	31	30	49	56	54	45	36	34
07:00	39	49	43	35	31	29	40	52	42	33	31	30	46	61	43	36	33	30
08:00	43	57	44	35	32	29	39	49	38	33	31	30	48	58	50	41	33	31
09:00	43	50	46	42	36	33	42	55	44	30	28	27	37	45	40	35	33	30
10:00	43	52	46	41	37	34	43	54	47	35	28	26	36	49	36	29	26	24
11:00	46	55	50	44	38	35	56	61	49	45	30	27	48	61	48	33	26	24
12:00	51	60	53	47	42	38	42	53	46	33	29	27	42	52	42	32	25	22
13:00				48	41	37	46	57	44	33	28	23	48	60	50	36	28	23
14:00	50	59	52	47	42	39	38	49	42	32	26	25	53	65	54	43	36	31
15:00	49	57	52	47	42	38	41	53	43	30	22	20	49	61	51	43	37	34
16:00	45	54	49	42	37	33	48	61	46	31	25	20	44	57	44	37	33	29
17:00	38	47	42	35	31	29	39	50	40	30	22	20	44	58	42	32	26	24
18:00	37	47	39	34	31	29	44	57	47	36	29	24	48	58	50	45	29	24
19:00	36	43	38	35	34	33	48	53	49	48	47	47	33	44	35	29	26	25
20:00	35	39	36	34	33	33	48	51	49	48	48	47	32	42	34	29	26	25
21:00	35	44	35	33	31	30	48	49	49	48	48	47	35	42	38	33	30	28
22:00	36	47	35	33	31	30	48	55	49	48	47	47	32	40	34	30	27	26
23:00	33	38	35	33	31	31	48	53	49	48	47	47	28	34	29	27	26	25
LD, dB(A)	45						47						46					
LN, dB(A)	32						43						47					
DNL, dB(A)	44						51						53					
Lmean, dB(A)	43						46						47					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

24-Nov-2008 Through 26-Nov-2008

Hour	Monday						Tuesday						Wednesday					
	Nov-24-2008						Nov-25-2008						Nov-26-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	29	36	30	28	27	26	35	41	38	34	32	30	30	34	32	29	26	24
01:00	29	33	30	29	27	27	33	37	35	32	30	28	31	35	33	30	28	27
02:00	29	35	30	28	27	26	36	42	39	35	31	30	31	34	32	30	28	27
03:00	30	41	30	28	26	25	35	42	38	33	30	29	31	34	32	30	28	27
04:00	29	37	30	28	26	25	34	40	35	32	30	29	32	36	33	31	29	28
05:00	43	60	35	29	27	26	39	48	38	36	33	31	41	57	36	31	29	27
06:00	46	56	42	33	28	26	46	59	48	37	35	34	46	57	43	36	31	27
07:00	35	45	38	32	29	27	47	58	45	38	35	34	41	50	41	36	34	33
08:00	36	47	38	31	28	27	42	53	45	37	34	34	42	54	43	35	30	28
09:00	39	52	38	30	27	25	38	50	41	33	29	28	37	50	38	29	25	22
10:00				31	25	23	40	52	42	32	29	28	42	55	40	27	22	21
11:00	46	55	38	27	23	22				32	29	28	37	48	39	26	20	19
12:00	33	46	35	27	23	22	45	57	38	30	27	25	46	58	40	27	21	18
13:00	36	49	37	28	24	22	41	51	36	27	24	22	42	56	40	30	24	20
14:00	39	51	41	34	28	25	40	48	39	29	23	21	55	68	52	36	23	19
15:00	42	56	43	35	29	25	34	46	36	27	23	21	53	66	52	39	24	19
16:00	46	56	43	33	27	25	41	56	35	29	25	21	60	70	51	34	23	18
17:00	40	51	41	29	25	23	36	46	39	29	23	21	47	60	46	31	21	18
18:00	43	54	44	36	31	25	48	60	40	28	24	23	40	52	43	32	26	21
19:00	40	50	39	35	33	29	35	46	37	29	26	24						
20:00	36	45	37	35	34	33	38	53	37	30	28	27	42	50	40	34	29	27
21:00	36	42	39	33	29	27	46	60	42	32	28	26	36	48	34	29	28	26
22:00	34	41	37	33	30	27	28	34	29	27	25	24	33	41	33	29	27	26
23:00	35	41	37	33	31	29	29	38	31	27	24	23	35	47	37	31	29	27
LD, dB(A)	41						43						51					
LN, dB(A)	39						38						38					
DNL, dB(A)	45						46						50					
Lmean, dB(A)	40						41						49					
Hours (Day)	14						14						14					
Hours (Night)	9						9						9					
Hours (Total)	23						23						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

27-Nov-2008 Through 29-Nov-2008

Hour	Thursday						Friday						Saturday					
	Nov-27-2008						Nov-28-2008						Nov-29-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	34	44	35	32	29	29	27	31	28	26	25	24	29	37	32	28	23	22
01:00	33	37	35	32	30	28	28	33	30	27	26	25	27	33	29	26	24	22
02:00	33	38	35	33	30	28	27	31	28	26	24	24	31	39	33	29	27	25
03:00	32	35	34	31	30	29	23	27	25	22	21	20	33	38	35	32	30	28
04:00	36	47	36	33	30	29	25	36	24	22	20	20	34	40	35	33	31	30
05:00	41	55	39	35	32	31	30	42	29	22	20	19	34	41	36	33	31	29
06:00	46	56	42	35	31	30	33	46	31	21	19	19	48	59	47	34	30	29
07:00	46	59	43	37	33	33	35	46	38	31	20	19	33	40	36	32	30	29
08:00	36	47	37	34	32	31	34	47	36	23	20	19	33	41	35	32	30	29
09:00	44	56	45	39	35	33	40	52	41	24	21	19	39	50	38	33	31	28
10:00	47	56	45	40	37	36	37	49	37	28	22	21	46	57	43	36	32	28
11:00	39	44	41	38	36	35	39	51	35	26	21	19	40	52	43	35	31	27
12:00	40	52	42	36	33	31	37	48	38	34	26	22	42	52	46	36	30	28
13:00	41	53	42	35	32	30	40	52	41	35	34	33	45	57	47	39	32	27
14:00	43	54	46	39	35	32	39	50	42	33	24	20	46	56	47	39	33	30
15:00	46	56	50	41	36	33	34	47	37	26	20	20	45	57	48	40	35	31
16:00	42	53	44	35	32	30	35	46	37	27	23	21	50	64	50	35	27	24
17:00	36	46	39	32	29	28	40	53	40	30	23	22	37	49	39	30	26	24
18:00	46	57	49	41	35	34	36	49	37	26	23	22	44	56	47	37	31	28
19:00	39	45	42	37	35	34	28	39	29	25	23	22	33	43	34	30	28	28
20:00	37	45	37	36	35	34	56	63	33	26	25	23	42	56	42	35	30	28
21:00	37	47	38	35	34	33	29	34	30	27	25	25	42	55	40	32	30	29
22:00	32	38	35	31	28	27	29	36	32	27	26	25	41	55	39	32	30	29
23:00	33	44	33	29	28	27	31	38	33	30	28	26	32	36	33	31	29	28
LD, dB(A)	43						45						44					
LN, dB(A)	39						29						40					
DNL, dB(A)	46						43						47					
Lmean, dB(A)	42						43						43					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

30-Nov-2008 Through 02-Dec-2008

Hour	Sunday						Monday						Tuesday					
	Nov-30-2008						Dec-01-2008						Dec-02-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	39	51	36	31	30	29	43	55	44	32	30	28	36	42	39	34	32	31
01:00	32	39	32	31	29	28	32	37	32	30	29	28	35	41	38	34	31	30
02:00	34	44	33	31	29	28	52	62	57	42	30	28	35	39	37	34	32	31
03:00	32	40	34	31	30	29	52	61	57	47	37	32	36	40	38	35	33	31
04:00	44	57	48	34	31	30	36	49	34	32	30	29	34	38	36	33	31	30
05:00	39	53	36	31	29	27	40	54	35	32	30	30	33	42	34	32	30	29
06:00	32	38	35	30	28	27	45	56	41	32	30	28	41	52	43	34	32	30
07:00	34	42	37	31	29	27	36	46	39	32	30	29	42	54	44	36	33	31
08:00	50	60	55	40	34	31	35	48	35	31	29	28	44	56	46	39	36	34
09:00	54	62	59	50	42	40	37	50	37	30	27	26	45	58	48	40	33	29
10:00	56	64	60	53	43	40	44	56	47	33	27	25	46	57	43	32	29	27
11:00	56	63	60	52	43	39	53	62	53	38	27	24	37	49	40	29	25	24
12:00	55	63	59	53	44	40	47	59	52	37	29	26	46	58	42	28	24	23
13:00	54	62	58	51	42	38	47	58	52	37	29	24	54	61	48	34	25	22
14:00	56	64	60	53	43	39	41	53	43	31	26	23	50	52	41	30	26	25
15:00	56	63	59	53	45	40	34	45	36	29	24	21	51	56	46	34	30	28
16:00	58	65	62	56	48	43	39	51	40	28	24	21	43	56	44	35	31	29
17:00	56	64	60	53	43	38	40	52	43	29	25	24				34	30	28
18:00	53	61	58	48	40	37	46	59	47	39	34	29				39	32	29
19:00	51	60	56	44	37	33	38	48	39	36	34	33	44	52	49	32	28	26
20:00	45	57	50	36	31	30	37	44	39	36	35	34	46	50	48	46	41	33
21:00	47	58	51	36	30	28	38	47	39	36	33	31	44	52	47	42	30	28
22:00	44	56	48	35	30	28	36	42	38	34	31	30	30	35	32	29	28	27
23:00	47	59	52	37	32	29	35	42	38	34	31	30	36	45	39	31	28	27
LD, dB(A)	54						44						48					
LN, dB(A)	42						47						36					
DNL, dB(A)	53						53						47					
Lmean, dB(A)	52						45						45					
Hours (Day)	15						15						13					
Hours (Night)	9						9						9					
Hours (Total)	24						24						22					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

03-Dec-2008 Through 05-Dec-2008

Hour	Wednesday						Thursday						Friday					
	Dec-03-2008						Dec-04-2008						Dec-05-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	44	53	47	41	35	33	30	42	27	26	25	24	27	37	26	25	24	23
01:00	39	50	42	35	33	31	31	42	27	25	24	24	26	34	26	25	24	23
02:00	33	39	36	32	30	28	31	44	28	25	24	24	25	28	26	24	23	23
03:00	42	51	45	39	32	30	35	47	26	25	24	23	26	34	26	25	24	23
04:00	35	44	38	31	29	28	31	43	27	25	24	23	28	37	29	26	24	23
05:00	47	56	51	43	29	26	30	41	32	25	24	23	35	46	35	27	25	24
06:00	50	59	53	46	40	36	45	57	43	28	25	24	37	49	40	30	27	26
07:00	50	60	54	46	39	35	37	50	41	26	24	23	41	55	43	30	27	27
08:00	49	59	53	45	39	34	38	51	40	26	24	23	44	56	39	30	28	27
09:00	51	59	55	49	45	42	46	59	41	27	25	23	45	54	49	43	37	31
10:00	48	57	52	46	41	38	36	49	38	27	24	23	46	54	49	43	38	34
11:00	51	59	54	49	44	41	35	46	37	28	25	23	44	53	48	41	36	33
12:00	49	57	52	46	41	38	39	50	41	31	25	23	49	58	50	44	39	34
13:00	46	54	50	44	40	37	41	55	38	33	24	23	47	56	50	44	39	35
14:00	44	52	47	41	36	32	38	49	40	30	25	24	46	54	49	43	37	31
15:00	41	51	44	37	31	28	38	49	41	30	24	23	44	55	47	40	35	32
16:00	42	49	42	36	31	26	37	48	41	32	26	25	45	56	43	36	30	25
17:00	38	48	38	26	22	21	38	48	41	34	29	27	46	58	41	27	24	23
18:00	36	47	40	25	22	21	41	49	44	38	33	29	41	55	38	28	24	23
19:00	47	52	48	46	43	23	38	46	41	36	31	28	37	48	39	33	29	26
20:00	44	49	47	43	24	24	33	43	36	30	28	27	46	50	48	46	41	31
21:00	32	44	31	26	25	24	31	40	29	27	26	25	41	48	46	31	29	29
22:00	32	44	30	26	25	24	34	48	28	27	26	25	35	45	36	33	31	29
23:00	33	42	31	28	26	25	32	43	28	26	25	24	33	43	34	31	29	28
LD, dB(A)	47						39						45					
LN, dB(A)	43						37						33					
DNL, dB(A)	51						44						44					
Lmean, dB(A)	46						39						43					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

06-Dec-2008 Through 08-Dec-2008

Hour	Saturday						Sunday						Monday					
	Dec-06-2008						Dec-07-2008						Dec-08-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	32	36	34	32	30	29	32	36	34	32	30	28	31	36	33	31	29	27
01:00	32	37	33	31	30	29	30	35	32	30	27	26	31	36	33	31	29	28
02:00	31	34	33	31	30	29	33	40	35	32	30	28	32	37	35	31	29	28
03:00	33	37	35	33	31	30	33	38	35	32	29	28	32	37	33	31	29	28
04:00	34	39	37	33	29	28	34	45	35	31	29	28	31	36	33	30	28	27
05:00	37	46	37	32	29	28	37	47	40	33	30	28	34	40	36	32	30	29
06:00	41	53	41	36	33	30	37	48	39	34	31	29	42	51	45	39	34	32
07:00	45	56	43	35	31	30	40	54	40	33	31	29	52	61	55	48	43	41
08:00	38	49	39	34	31	28	40	50	40	33	31	30	52	61	56	49	44	40
09:00	35	45	38	31	30	29	38	49	39	34	31	29	52	61	56	49	42	39
10:00	46	56	40	31	28	26	36	45	39	34	29	27	52	61	55	48	42	37
11:00	38	51	38	28	25	23	42	51	44	39	31	28	53	62	57	50	44	40
12:00	36	49	36	27	23	22	59	67	50	43	37	33	55	65	58	51	45	41
13:00	36	47	38	31	26	23	48	61	47	41	35	32	54	62	57	51	45	42
14:00	38	51	41	30	22	21	47	57	50	41	34	29	49	58	52	45	39	35
15:00	48	62	41	24	20	19	60	72	50	42	37	33	50	58	54	48	41	36
16:00	32	44	34	23	19	18	42	53	45	38	30	26	48	58	52	44	38	34
17:00				33	25	22	58	72	46	32	27	24	43	55	45	37	31	27
18:00	44	54	43	27	23	22	39	52	41	30	25	23	45	56	48	42	32	27
19:00	36	50	35	27	23	22	46	57	44	32	29	27	42	52	45	38	32	30
20:00	44	49	47	43	27	24	33	41	34	31	30	29	39	48	43	36	31	29
21:00	42	48	46	40	29	27	33	43	34	31	30	28	34	45	37	29	26	24
22:00	34	45	35	31	28	27	31	39	33	30	29	28	31	40	31	27	25	24
23:00	33	40	35	31	29	28	32	38	33	31	29	28	33	46	29	26	24	23
LD, dB(A)	42						53						50					
LN, dB(A)	35						34						35					
DNL, dB(A)	44						51						49					
Lmean, dB(A)	41						51						49					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

09-Dec-2008 Through 10-Dec-2008

Hour	Tuesday						Wednesday											
	Dec-09-2008						Dec-10-2008											
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)						
00:00	32	43	34	27	24	23	25	29	27	25	23	23						
01:00	43	52	47	40	32	27	24	28	26	24	23	22						
02:00	38	47	41	35	31	29	27	33	30	27	24	21						
03:00	39	47	42	37	33	30	23	28	24	23	21	20						
04:00	40	50	43	36	31	30	26	30	28	26	24	22						
05:00	43	52	46	37	28	26	27	33	30	26	24	24						
06:00	44	53	47	41	36	33	29	36	30	27	25	24						
07:00	49	57	52	45	40	35	33	44	34	29	27	26						
08:00	46	55	49	42	36	32	33	45	35	29	27	26						
09:00	51	59	54	48	41	37	33	44	35	29	26	25						
10:00	50	61	54	46	39	35	34	46	35	27	25	24						
11:00	51	60	55	49	43	40	35	47	37	29	27	25						
12:00	52	61	56	49	44	41				29	26	24						
13:00	53	61	56	50	45	39												
14:00	50	58	53	47	42	39												
15:00	50	59	54	47	42	39												
16:00	44	54	47	40	34	31												
17:00	37	44	40	35	30	28												
18:00	31	41	32	28	26	25												
19:00	29	37	31	28	26	25												
20:00	29	34	30	28	27	26												
21:00	28	33	30	27	26	25												
22:00	27	33	29	26	24	23												
23:00	26	33	28	25	23	23												
LD, dB(A)	48						34											
LN, dB(A)	40						26											
DNL, dB(A)	49																	
Lmean, dB(A)	47						31											
Hours (Day)	15						5											
Hours (Night)	9						7											
Hours (Total)	24						12											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

12-Nov-2008 Through 14-Nov-2008

Hour	Wednesday Nov-12-2008						Thursday Nov-13-2008						Friday Nov-14-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00							31	35	33	30	28	27						
01:00							35	40	34	31	29	28						
02:00							31	36	33	31	28	27						
03:00							32	36	33	31	29	28						
04:00							32	37	34	31	29	28						
05:00							40	49	34	30	28	27						
06:00							43	56	43	32	29	28						
07:00							48	59	51	35	31	30						
08:00							46	59	47	35	31	29						
09:00							49	64	48	33	28	27						
10:00							47	61	41	30	28	26						
11:00							52	66	51	33	27	25	76	94	56	47	41	38
12:00							57	66	51	33	26	24	53	64	56	49	44	41
13:00							55	66	52	35	27	24	52	63	55	48	41	38
14:00							50	64	51	33	26	22	55	65	58	51	45	42
15:00			52	32	26	25	49	62	50	33	27	23	54	63	56	50	45	42
16:00	45	58	48	32	29	27	49	62	49	33	27	26						
17:00	47	59	46	31	27	26	47	59	41	31	28	27						
18:00	44	57	40	27	24	23	44	55	38	28	25	24						
19:00	41	56	31	26	24	23	43	54	38	26	24	23						
20:00	34	47	33	29	26	25	37	46	33	27	25	23						
21:00	37	47	31	28	26	25	34	43	32	29	27	26						
22:00	33	42	31	28	27	26	30	35	33	30	25	24						
23:00	33	40	31	28	27	26	33	42	35	31	29	28						
LD, dB(A)	43						50											
LN, dB(A)	33						36											
DNL, dB(A)							49											
Lmean, dB(A)	42						48											
Hours (Day)	6						15						5					
Hours (Night)	2						9						0					
Hours (Total)	8						24						5					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

15-Nov-2008 Through 17-Nov-2008

Hour	Saturday						Sunday						Monday					
	Nov-15-2008						Nov-16-2008						Nov-17-2008					
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)
00:00							29	32	30	28	27	26	31	36	33	30	26	25
01:00							30	37	31	29	28	27	30	35	33	30	26	25
02:00							39	51	32	29	28	27	29	33	31	28	26	25
03:00							37	44	32	30	28	27	28	32	29	27	26	25
04:00							29	33	31	29	27	26	29	34	30	28	27	26
05:00							32	41	31	29	27	27	35	46	32	29	28	26
06:00							43	54	32	29	27	26	44	56	47	30	27	26
07:00							36	47	33	29	27	26	49	61	48	34	29	28
08:00							34	42	33	31	29	27	47	60	43	33	29	28
09:00							36	51	32	29	28	27	49	63	46	36	32	30
10:00							37	49	34	29	26	23				35	30	28
11:00							41	55	36	28	23	21	50	59	43	34	29	27
12:00							47	57	43	34	28	25	44	59	40	32	28	26
13:00							46	59	45	34	30	27	46	60	41	31	27	26
14:00							51	64	52	37	32	29	45	59	40	31	27	25
15:00							72	79	58	38	27	23	45	58	37	30	27	26
16:00							67	73	57	39	27	23	45	58	39	29	26	25
17:00							67	77	59	42	28	24	43	56	36	26	23	22
18:00							40	54	37	25	22	21	41	52	33	23	22	21
19:00							38	49	30	25	24	23	29	39	28	22	20	20
20:00							34	44	31	27	24	23	40	53	32	28	26	24
21:00							27	33	29	27	25	23	28	31	29	28	27	26
22:00							31	39	31	27	25	24	29	32	30	28	27	26
23:00							36	47	31	28	26	24	29	34	29	28	27	26
LD, dB(A)							62						46					
LN, dB(A)							37						35					
DNL, dB(A)							60						45					
Lmean, dB(A)							60						44					
Hours (Day)	0						15						14					
Hours (Night)	0						9						9					
Hours (Total)	0						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

18-Nov-2008 Through 20-Nov-2008

Hour	Tuesday						Wednesday						Thursday					
	Nov-18-2008						Nov-19-2008						Nov-20-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	31	44	31	29	27	27	30	35	32	29	28	27						
01:00	30	32	31	30	28	27	29	34	31	29	27	26						
02:00	31	33	32	31	29	28	28	33	30	28	27	26						
03:00	41	52	32	30	29	28	42	53	32	28	27	26						
04:00	30	35	32	30	28	27	30	33	31	29	28	27						
05:00	30	33	31	30	29	28												
06:00	45	56	45	32	29	28												
07:00	46	58	49	33	30	29												
08:00	44	56	43	33	30	29												
09:00	47	60	45	33	30	29												
10:00	49	62	45	34	30	29												
11:00	45	60	43	33	30	29												
12:00	48	61	44	33	29	27												
13:00	47	60	44	33	28	27							48	59	50	42	37	32
14:00					30	27	46	59	45	29	22	19	46	58	49	42	36	32
15:00	47	61	47	34	29	27	46	57	37	22	18	17	48	60	48	38	33	31
16:00	47	60	47	31	27	25	43	56	38	22	19	18	47	60	47	37	31	28
17:00	47	60	45	30	29	27	45	58	40	26	22	19	54	66	57	40	31	27
18:00	43	56	33	29	27	26	40	56	33	26	24	24	50	64	48	30	25	24
19:00	41	55	31	28	26	25	38	51	32	28	26	25	38	44	31	26	25	24
20:00	29	35	31	28	26	25	36	50	27	23	21	20	38	42	30	28	26	25
21:00	39	51	30	27	25	24	36	47	30	26	24	23	38	49	34	26	23	22
22:00	36	50	32	29	27	26							26	32	29	25	22	22
23:00	38	50	33	30	28	27							33	39	26	24	23	22
LD, dB(A)	46						43						48					
LN, dB(A)	38						36						31					
DNL, dB(A)	47																	
Lmean, dB(A)	44						41						47					
Hours (Day)	14						8						9					
Hours (Night)	9						5						2					
Hours (Total)	23						13						11					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

21-Nov-2008 Through 23-Nov-2008

Hour	Friday						Saturday						Sunday					
	Nov-21-2008						Nov-22-2008						Nov-23-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	26	28	27	25	24	23												
01:00	25	27	26	25	24	23												
02:00	28	29	26	24	23	23												
03:00	34	44	28	25	24	23												
04:00	33	44	25	24	24	23												
05:00	34	44	28	25	24	24												
06:00	43	55	45	27	26	25												
07:00	46	58	50	31	28	27												
08:00	47	59	49	32	28	27												
09:00	46	58	49	40	34	32												
10:00	46	57	49	41	35	32												
11:00	49	59	50	42	36	32												
12:00	48	58	51	44	39	36												
13:00				46	39	36												
14:00	49	59	53	45	39	36												
15:00	50	60	54	44	39	36												
16:00	48	59	50	41	34	29												
17:00	43	56	44	34	29	28												
18:00	39	52	39	31	29	27												
19:00	38	52	34	30	29	28												
20:00	33	43	33	30	29	28												
21:00	38	49	33	30	29	28												
22:00	33	38	33	31	30	29												
23:00	32	35	33	32	30	30												
LD, dB(A)	46																	
LN, dB(A)	35																	
DNL, dB(A)	46																	
Lmean, dB(A)	44																	
Hours (Day)	14						0						0					
Hours (Night)	9						0						0					
Hours (Total)	23						0						0					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

24-Nov-2008 Through 26-Nov-2008

Hour	Monday						Tuesday						Wednesday					
	Nov-24-2008						Nov-25-2008						Nov-26-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	29	36	31	28	27	26	31	35	33	30	28	27						
01:00	29	31	30	28	27	26	30	34	32	30	28	27						
02:00	28	33	30	28	27	26	36	45	34	31	30	29						
03:00	40	45	29	27	26	25	33	37	34	32	30	29						
04:00	30	40	31	28	25	24	36	42	34	31	29	28						
05:00	44	60	35	28	26	24	43	55	38	34	32	30						
06:00							49	61	52	38	33	32						
07:00							47	58	50	36	34	33						
08:00							46	58	47	34	32	30						
09:00							47	61	47	30	27	26						
10:00							48	58	45	30	27	26						
11:00				29	23	21	47	60	43	29	27	26						
12:00	46	59	41	26	24	22				29	26	24						
13:00	48	62	44	27	24	23	42	55	41	26	23	22						
14:00	50	62	46	31	25	23	45	57	45	26	22	20						
15:00	47	60	48	31	24	22	48	60	45	25	21	20						
16:00	53	65	51	30	23	21	45	58	44	26	20	19						
17:00	46	59	47	25	22	21	45	58	45	26	21	20						
18:00	55	67	52	35	30	27	46	59	46	28	25	24						
19:00	43	56	38	33	30	27	51	63	49	34	26	24						
20:00	37	47	38	34	31	29	51	64	49	39	27	25	48	60	50	34	30	25
21:00	33	43	32	30	28	26	49	63	50	31	27	25	52	63	48	33	27	26
22:00	31	36	33	30	28	26	50	63	51	32	25	23	55	69	53	34	28	27
23:00	33	37	35	32	30	28	50	60	53	28	24	23	53	62	52	42	28	26
LD, dB(A)	49						47						51					
LN, dB(A)	37						46						54					
DNL, dB(A)							52											
Lmean, dB(A)	47						47						53					
Hours (Day)	10						14						2					
Hours (Night)	8						9						2					
Hours (Total)	18						23						4					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

27-Nov-2008 Through 29-Nov-2008

Hour	Thursday Nov-27-2008						Friday Nov-28-2008						Saturday Nov-29-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	53	63	56	47	40	32	27	30	28	27	25	25	34	44	31	26	23	22
01:00	58	68	60	50	41	37	31	34	29	26	25	24	42	50	29	26	24	23
02:00	54	66	54	46	37	34	31	34	28	26	24	23	50	60	38	29	26	25
03:00	44	54	45	29	27	26	23	26	25	23	22	21	32	40	33	31	29	28
04:00	39	49	32	29	28	27	33	40	24	22	21	21	42	52	50	33	31	29
05:00	37	48	35	30	28	27	40	53	42	35	20	18	51	61	58	41	31	29
06:00	46	58	42	32	29	28	45	57	38	31	21	20	50	61	53	38	30	29
07:00	51	65	49	36	32	31	36	49	27	22	21	21	46	59	41	32	31	30
08:00	52	65	46	33	29	27	40	55	33	22	20	19	47	61	43	33	31	30
09:00	57	62	53	43	37	34	44	57	39	23	19	18	47	60	45	35	31	28
10:00	47	59	48	40	35	33	43	57	42	25	21	19	68	71	52	39	32	27
11:00	43	54	45	37	33	31	47	59	48	28	18	17	70	76	58	43	32	27
12:00	44	56	45	37	32	29	45	55	48	27	21	18	46	59	48	38	31	26
13:00	45	58	46	40	32	30	40	54	34	26	24	23	52	66	51	37	31	28
14:00	44	54	45	39	34	32	45	58	47	32	24	21	52	64	48	38	31	27
15:00	45	56	46	39	34	33	45	57	49	26	22	21	47	60	48	40	35	31
16:00	46	54	42	34	30	29	44	55	41	27	23	22	54	68	51	36	27	24
17:00	47	56	41	34	30	28	42	55	38	28	23	22	50	63	45	30	25	23
18:00	50	60	52	43	35	33	43	57	40	27	23	23	48	61	48	36	30	28
19:00	42	50	44	38	34	33	32	43	32	26	24	23	40	49	34	30	28	27
20:00	40	48	37	33	32	30	68	70	54	27	25	24	45	52	39	31	29	27
21:00	38	48	38	32	30	29	48	57	32	26	25	24	36	43	36	31	29	28
22:00	35	46	35	30	28	27	29	38	30	27	26	25	41	47	34	31	29	28
23:00	34	45	34	29	27	26	34	41	31	29	27	26	34	43	32	30	29	28
LD, dB(A)	49						57						60					
LN, dB(A)	51						37						46					
DNL, dB(A)	57						55						59					
Lmean, dB(A)	50						55						58					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

30-Nov-2008 Through 02-Dec-2008

Hour	Sunday						Monday						Tuesday					
	Nov-30-2008						Dec-01-2008						Dec-02-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	38	45	34	30	29	28	32	40	35	30	28	27	31	34	32	30	29	28
01:00	31	36	32	30	29	28	30	33	31	30	28	27						
02:00	31	36	32	30	28	27	42	53	44	37	29	27						
03:00	40	39	32	29	28	27	43	53	45	38	33	30						
04:00	42	54	38	32	29	28	32	36	34	32	30	29						
05:00	39	53	38	32	29	27	41	53	35	32	30	29						
06:00	43	56	36	30	28	26	43	56	39	31	29	28						
07:00	44	57	38	31	28	27	46	59	46	34	30	29						
08:00	47	60	47	37	32	30	43	58	38	30	28	27						
09:00	50	61	52	44	39	35	46	60	46	30	27	26						
10:00	50	61	53	45	40	37	49	61	47	32	27	25						
11:00	52	62	55	47	41	37	49	63	49	35	26	24						
12:00	52	61	55	47	41	38	47	60	43	34	28	26						
13:00	53	64	55	46	40	36	44	58	40	33	27	24						
14:00	52	62	55	47	40	38	55	69	49	32	26	22						
15:00	52	62	55	47	41	38	43	57	38	24	21	20						
16:00	55	66	58	50	44	40	47	61	46	26	22	21						
17:00	49	59	52	45	39	36	47	60	46	26	23	22						
18:00	50	60	53	45	40	36	50	63	52	36	27	26						
19:00	46	56	49	41	34	31	40	52	35	30	27	26				30	27	25
20:00	39	49	42	34	29	27	36	44	37	32	29	26	37	49	34	31	29	27
21:00	40	52	42	33	29	27	39	51	38	34	30	28	42	55	34	30	27	26
22:00	37	46	39	32	28	27	34	45	35	31	28	27	28	33	30	27	26	25
23:00	39	49	42	35	30	28	31	35	33	31	29	28	30	37	33	29	27	26
LD, dB(A)	50						48						40					
LN, dB(A)	39						39						30					
DNL, dB(A)	50						48											
Lmean, dB(A)	48						46						37					
Hours (Day)	15						15						2					
Hours (Night)	9						9						3					
Hours (Total)	24						24						5					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

03-Dec-2008 Through 05-Dec-2008

Hour	Wednesday						Thursday						Friday					
	Dec-03-2008						Dec-04-2008						Dec-05-2008					
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)
00:00	38	44	40	37	35	32	25	27	26	25	24	23						
01:00	36	44	38	34	31	29	41	36	26	24	23	22						
02:00	32	37	34	31	29	28	42	50	26	24	23	23						
03:00	45	57	47	37	30	28	39	47	25	24	23	23						
04:00	43	48	40	32	29	28	40	34	25	24	23	22						
05:00	48	58	51	42	28	26	31	35	26	24	23	23						
06:00	53	64	56	48	43	41	25	27	26	25	24	7						
07:00	52	64	54	45	38	35	44	57	35	26	24	23						
08:00	50	61	51	43	38	34	45	58	40	27	24	23						
09:00	54	64	57	49	43	39	45	56	42	31	26	23						
10:00	50	60	53	46	41	38	46	58	41	32	26	24						
11:00	50	60	54	47	41	36	42	55	40	31	26	24						
12:00	51	62	54	45	40	37	45	58	43	30	25	23						
13:00	49	61	51	44	38	35	44	54	42	32	25	23						
14:00	49	62	49	39	33	31	44	57	41	33	26	23						
15:00	48	60	48	38	32	28	43	56	43	31	25	23						
16:00	46	59	45	34	28	25	45	58	39	29	25	23						
17:00	43	56	38	25	22	21	45	56	35	29	27	25						
18:00	42	56	35	23	22	21	35	43	38	34	30	27						
19:00	41	49	31	26	24	22	36	46	36	31	28	27						
20:00	40	49	30	26	24	23	33	37	32	28	27	26						
21:00	39	45	31	26	24	23	30	35	29	27	25	25						
22:00	41	47	31	28	26	24												
23:00	40	43	31	27	26	25												
LD, dB(A)	49						43											
LN, dB(A)	46						38											
DNL, dB(A)	53						46											
Lmean, dB(A)	48						42											
Hours (Day)	15						15						0					
Hours (Night)	9						7						0					
Hours (Total)	24						22						0					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

06-Dec-2008 Through 08-Dec-2008

Hour	Saturday						Sunday						Monday					
	Dec-06-2008						Dec-07-2008						Dec-08-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00							28	32	30	28	26	25	27	32	29	27	25	25
01:00							29	36	29	27	26	25	28	32	29	27	26	25
02:00							34	45	32	29	27	25	29	33	30	28	27	25
03:00							30	35	32	29	27	25	29	32	30	28	27	26
04:00							40	53	32	28	27	25	32	40	30	28	27	26
05:00							44	57	41	29	27	26	33	39	32	29	27	26
06:00							43	55	40	32	29	28	46	59	45	31	28	27
07:00							45	58	43	31	28	27	48	60	46	39	34	31
08:00							44	57	42	30	28	26	47	61	46	40	37	36
09:00							44	55	42	31	28	26	50	62	52	43	38	37
10:00							39	53	37	29	26	25	49	61	51	44	39	37
11:00							48	60	48	35	28	26	50	62	51	44	40	37
12:00							70	78	57	38	32	27	47	58	50	44	39	36
13:00							53	65	50	36	29	26	47	59	49	43	39	37
14:00							51	62	49	38	31	27	48	60	48	37	33	30
15:00							70	77	55	41	32	29	50	63	52	39	34	28
16:00							78	91	63	39	30	24	51	63	54	40	35	32
17:00							75	82	62	34	23	21	47	59	45	30	27	25
18:00							44	57	43	29	24	22	48	59	50	41	30	26
19:00							71	78	68	33	26	24	45	55	43	36	30	28
20:00							42	56	35	29	27	26	38	50	38	32	30	28
21:00							38	51	32	29	27	26	41	47	35	29	26	25
22:00							34	45	29	27	25	25	43	51	32	28	25	24
23:00							31	39	29	27	25	24	42	48	31	27	25	24
LD, dB(A)							69						48					
LN, dB(A)							38						40					
DNL, dB(A)							67						49					
Lmean, dB(A)							67						46					
Hours (Day)	0						15						15					
Hours (Night)	0						9						9					
Hours (Total)	0						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

09-Dec-2008 Through 10-Dec-2008

Hour	Tuesday						Wednesday											
	Dec-09-2008						Dec-10-2008											
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin						
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)						
00:00																		
01:00																		
02:00																		
03:00																		
04:00																		
05:00																		
06:00																		
07:00																		
08:00																		
09:00																		
10:00																		
11:00																		
12:00																		
13:00																		
14:00																		
15:00																		
16:00																		
17:00																		
18:00																		
19:00																		
20:00																		
21:00																		
22:00																		
23:00																		
LD, dB(A)																		
LN, dB(A)																		
DNL, dB(A)																		
Lmean, dB(A)																		
Hours (Day)	0						0											
Hours (Night)	0						0											
Hours (Total)	0						0											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

12-Nov-2008 Through 14-Nov-2008

Hour	Wednesday						Thursday						Friday					
	Nov-12-2008						Nov-13-2008						Nov-14-2008					
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)
00:00																		
01:00																		
02:00																		
03:00																		
04:00																		
05:00																		
06:00																		
07:00																		
08:00																		
09:00																		
10:00																		
11:00											35	30						
12:00							45	53	43	36	31	29						
13:00							42	50	45	39	33	29						
14:00							68	49	44	38	33	31					47	42
15:00							75	91	45	38	33	31	53	61	56	51	45	40
16:00							77	94	43	35	31	29	53	62	57	49	42	37
17:00							37	45	37	35	33	31	48	56	52	45	39	35
18:00							35	39	36	34	32	31	36	45	41	31	26	24
19:00							32	38	34	31	29	28	36	45	40	34	29	25
20:00							31	38	33	30	29	28	40	49	44	35	29	25
21:00							30	37	32	29	28	26	44	56	46	39	32	29
22:00							30	35	32	29	27	25	41	53	39	31	28	27
23:00							27	34	30	26	24	22	32	40	35	29	26	25
LD, dB(A)							69						48					
LN, dB(A)							29						38					
DNL, dB(A)																		
Lmean, dB(A)							69						48					
Hours (Day)	0						10						7					
Hours (Night)	0						2						2					
Hours (Total)	0						12						9					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

15-Nov-2008 Through 17-Nov-2008

Hour	Saturday						Sunday						Monday					
	Nov-15-2008						Nov-16-2008						Nov-17-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	25	32	26	24	23	22	30	34	32	30	28	27	30	35	32	29	27	25
01:00	25	27	26	24	23	22	31	40	32	29	27	26	30	36	33	30	27	24
02:00	24	28	25	23	22	21	29	32	30	28	26	25	35	45	31	28	25	23
03:00	32	44	35	26	23	22	30	37	32	29	26	25	30	37	34	28	25	23
04:00							29	32	30	28	26	25	30	35	32	28	25	23
05:00							32	39	36	30	28	27	29	34	31	28	26	25
06:00							32	37	35	30	28	26	26	30	28	26	24	23
07:00							35	48	36	32	29	27	34	46	30	27	25	23
08:00							47	56	44	37	33	31	29	39	30	26	25	24
09:00							42	50	45	39	36	34	39	47	43	35	28	26
10:00							53	48	41	37	35	34	39	46	43	36	29	26
11:00							53	68	48	36	32	30	40	49	44	37	30	26
12:00							46	57	46	35	29	27				38	30	27
13:00							57	71	49	37	30	28	39	49	44	35	27	24
14:00							58	69	53	40	34	30	46	50	41	32	26	24
15:00							50	60	51	42	36	33	36	45	40	32	27	25
16:00							48	59	47	39	33	31	36	49	36	28	25	23
17:00							54	67	48	37	33	32	29	37	31	27	25	23
18:00							40	52	39	35	31	26	28	33	31	27	23	22
19:00							35	45	38	30	27	24	30	39	32	29	25	23
20:00							31	37	31	28	25	24	29	35	30	28	25	24
21:00							30	36	32	29	26	24	38	39	31	29	27	26
22:00							29	35	31	28	26	24	29	34	31	29	27	26
23:00							29	36	30	28	25	24	30	35	32	29	26	25
LD, dB(A)							51						38					
LN, dB(A)	28						30						30					
DNL, dB(A)							50						39					
Lmean, dB(A)	28						49						36					
Hours (Day)	0						15						14					
Hours (Night)	4						9						9					
Hours (Total)	4						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

18-Nov-2008 Through 20-Nov-2008

Hour	Tuesday						Wednesday						Thursday					
	Nov-18-2008						Nov-19-2008						Nov-20-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	32	41	34	29	27	26	31	35	33	31	28	26	37	47	40	30	24	22
01:00	28	32	30	27	25	23	32	36	34	31	29	27	39	49	43	32	26	24
02:00	29	33	30	27	24	23	35	46	36	32	29	27	47	56	51	43	34	29
03:00	29	34	31	29	27	25	33	39	35	32	30	28	48	56	52	45	38	35
04:00	30	34	32	30	28	27	31	34	33	31	29	28	51	60	55	47	39	35
05:00							33	36	34	32	31	28	52	60	55	49	42	40
06:00							35	39	37	35	33	32	52	61	56	49	43	39
07:00							40	50	40	37	33	32	51	61	55	48	42	38
08:00							39	46	41	38	36	34	51	60	55	47	42	37
09:00							39	44	41	38	36	34	51	59	55	49	42	36
10:00							40	47	43	39	35	34	51	60	55	49	42	38
11:00							38	46	41	36	31	28	51	58	54	48	43	40
12:00							36	45	40	32	29	26	51	56	54	49	44	41
13:00							41	54	35	28	25	23			56	49	43	39
14:00							49	48	35	26	22	21	49	58	52	47	40	36
15:00									26	22	20		48	57	52	46	40	35
16:00				39	34	32	34	46	32	25	23	21	62	52	47	40	34	30
17:00	39	46	42	37	34	33	45	54	36	28	22	21	42	50	46	38	31	27
18:00	40	49	43	37	33	32	29	35	31	28	26	25	38	47	43	33	26	23
19:00	36	45	35	31	29	27	23	29	26	21	20	19	34	45	38	28	23	22
20:00	32	40	33	30	28	26	23	31	25	21	20	19	31	40	35	28	23	22
21:00	30	33	31	29	28	26	27	34	25	21	19	18	28	37	30	25	23	22
22:00	31	35	33	30	29	27	24	30	26	21	19	18						
23:00	32	36	34	31	29	28	27	39	27	21	19	19						
LD, dB(A)	37						41						53					
LN, dB(A)	30						32						49					
DNL, dB(A)							41											
Lmean, dB(A)	34						39						52					
Hours (Day)	5						14						14					
Hours (Night)	7						9						7					
Hours (Total)	12						23						21					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

21-Nov-2008 Through 23-Nov-2008

Hour	Friday						Saturday						Sunday					
	Nov-21-2008						Nov-22-2008						Nov-23-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	22	25	24	22	21	20	38	50	39	36	33	32	34	38	36	33	31	30
01:00	23	26	25	23	21	21	44	58	39	33	31	30	34	39	36	32	28	27
02:00	24	33	26	22	21	20	33	38	35	32	30	28	32	36	33	31	29	28
03:00	27	36	25	22	21	20	32	35	33	32	30	28	29	32	31	29	28	27
04:00	29	37	30	25	23	22	34	45	36	31	29	27	36	47	38	31	28	27
05:00	28	35	30	27	25	23	33	42	33	30	27	26	36	44	39	33	29	28
06:00	30	34	32	29	28	26	35	47	36	32	29	28	35	43	38	33	30	28
07:00	35	41	37	34	30	28	40	52	37	31	28	26	37	42	38	34	32	31
08:00	36	41	38	35	33	31	34	40	37	33	31	30	37	42	38	35	33	32
09:00	39	47	43	36	33	31	36	44	38	34	32	31	44	52	41	38	36	35
10:00	44	52	48	42	35	32	41	50	36	32	30	28	53	55	43	39	34	33
11:00	47	55	51	44	39	35	35	45	36	31	29	28	51	63	44	36	31	29
12:00	48	55	51	46	41	38							50	61	45	36	30	27
13:00	48	56	52	46	41	37							59	70	57	40	32	29
14:00	49	56	52	47	41	37							62	68	52	38	29	24
15:00				48	43	39							59	71	59	48	41	35
16:00	47	54	50	45	41	38							59	65	53	45	37	33
17:00	42	50	46	40	36	34							58	70	52	40	32	28
18:00	40	49	41	37	34	33							39	48	42	35	31	29
19:00	39	47	42	37	35	33							37	47	41	32	27	26
20:00	45	53	40	36	34	34							39	51	43	32	26	25
21:00	35	41	37	35	33	32							46	55	50	43	36	31
22:00	37	44	38	36	34	34							49	58	53	46	40	36
23:00	39	44	41	37	35	33							45	54	49	42	35	32
LD, dB(A)	45						38						55					
LN, dB(A)	32						38						42					
DNL, dB(A)	44												54					
Lmean, dB(A)	43						38						53					
Hours (Day)	14						5						15					
Hours (Night)	9						7						9					
Hours (Total)	23						12						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

24-Nov-2008 Through 26-Nov-2008

Hour	Monday						Tuesday						Wednesday					
	Nov-24-2008						Nov-25-2008						Nov-26-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	43	51	47	39	32	28	33	38	36	32	29	27	26	31	28	26	23	20
01:00							32	37	35	31	27	25	25	30	28	25	23	22
02:00							31	36	33	31	29	28	26	31	28	25	23	22
03:00							33	38	35	32	29	28	24	28	26	24	22	21
04:00							32	36	34	32	30	29	26	30	29	26	24	22
05:00							35	41	37	34	33	32	28	37	29	27	25	24
06:00							34	38	35	33	32	31	29	39	34	27	25	24
07:00							36	40	38	35	33	32	37	48	41	29	26	25
08:00													46	60	45	39	34	32
09:00													43	49	45	41	39	37
10:00																		
11:00																		
12:00																		
13:00										41	37	35						
14:00							44	52	46	41	37	34						
15:00							50	55	49	43	39	36						
16:00							52	59	44	39	36	33						
17:00							44	54	49	37	29	28						
18:00							31	41	32	29	27	25						
19:00							33	46	32	27	23	21						
20:00							32	39	35	30	27	25						
21:00							21	28	24	20	18	18						
22:00							23	32	25	20	18	17						
23:00							23	31	24	21	20	19						
LD, dB(A)							45						43					
LN, dB(A)							32						27					
DNL, dB(A)																		
Lmean, dB(A)							42						38					
Hours (Day)	0						9						3					
Hours (Night)	1						9						7					
Hours (Total)	1						18						10					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

27-Nov-2008 Through 29-Nov-2008

Hour	Thursday						Friday						Saturday					
	Nov-27-2008						Nov-28-2008						Nov-29-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00																		
01:00																		
02:00																		
03:00																		
04:00																		
05:00																		
06:00																		
07:00																		
08:00																		
09:00																		
10:00																		
11:00																		
12:00																		
13:00																		
14:00																		
15:00																		
16:00																		
17:00																		
18:00																		
19:00																		
20:00																		
21:00																		
22:00																		
23:00																		
LD, dB(A)																		
LN, dB(A)																		
DNL, dB(A)																		
Lmean, dB(A)																		
Hours (Day)	0						0						0					
Hours (Night)	0						0						0					
Hours (Total)	0						0						0					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

30-Nov-2008 Through 02-Dec-2008

Hour	Sunday						Monday						Tuesday					
	Nov-30-2008						Dec-01-2008						Dec-02-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													34	38	36	33	29	27
01:00													34	38	36	33	31	29
02:00													33	36	34	32	29	28
03:00													31	34	33	31	29	27
04:00													32	38	34	31	29	27
05:00													32	36	33	31	29	28
06:00													34	43	35	32	30	29
07:00													36	46	38	34	32	30
08:00													52	68	46	42	39	37
09:00													44	50	46	43	40	38
10:00													44	51	46	43	39	37
11:00													43	49	45	42	39	38
12:00													44	53	46	41	39	37
13:00													42	48	44	41	38	36
14:00													41	50	44	37	34	32
15:00													49	62	46	38	34	33
16:00																38	33	32
17:00													41	51	40	34	31	30
18:00													35	44	37	33	30	28
19:00													30	34	32	30	28	28
20:00													30	34	31	30	29	28
21:00													29	32	30	28	27	26
22:00													29	34	31	28	26	25
23:00													28	32	30	28	26	25
LD, dB(A)													44					
LN, dB(A)													32					
DNL, dB(A)													44					
Lmean, dB(A)													42					
Hours (Day)	0						0						14					
Hours (Night)	0						0						9					
Hours (Total)	0						0						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

03-Dec-2008 Through 05-Dec-2008

Hour	Wednesday						Thursday						Friday					
	Dec-03-2008						Dec-04-2008						Dec-05-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	29	33	30	28	26	25	26	25	24	22	21	20	27	37	26	25	24	23
01:00	30	36	33	28	26	24	24	28	25	24	22	21	26	34	26	25	24	23
02:00	30	37	33	28	25	23	24	28	25	23	22	21	25	28	26	24	23	23
03:00	37	49	41	29	26	25	25	33	28	24	21	20	26	34	26	25	24	23
04:00	51	59	54	48	44	40	25	35	24	22	20	20	28	37	29	26	24	23
05:00	53	62	56	51	46	43	25	35	26	23	22	21	35	46	35	27	25	24
06:00	56	65	59	53	44	40	27	39	26	23	22	21	37	49	40	30	27	26
07:00	51	61	54	47	39	35	41	52	27	23	22	21	41	55	43	30	27	27
08:00	47	56	51	43	33	29	27	35	29	25	23	22	44	56	39	30	28	27
09:00	49	59	52	44	37	34	32	43	30	24	23	22	45	54	49	43	37	31
10:00	49	59	52	44	39	35	29	38	32	26	24	23	46	54	49	43	38	34
11:00	49	57	52	46	41	37	37	50	37	32	25	24	44	53	48	41	36	33
12:00	47	56	50	43	38	35	38	48	36	28	25	23	49	58	50	44	39	34
13:00	47	56	50	44	37	33	27	34	29	25	23	22	47	56	50	44	39	35
14:00	42	50	45	40	34	30	31	42	33	26	23	22	46	54	49	43	37	31
15:00	37	47	40	34	30	27	28	37	30	25	22	20	44	55	47	40	35	32
16:00	34	45	37	29	24	23	37	48	41	32	26	25	45	56	43	36	30	25
17:00	34	42	36	26	22	21	38	48	41	34	29	27	46	58	41	27	24	23
18:00	40	54	39	28	24	22	41	49	44	38	33	29	41	55	38	28	24	23
19:00	31	41	28	23	21	20	38	46	41	36	31	28	37	48	39	33	29	26
20:00	23	32	25	22	21	20	33	43	36	30	28	27	46	50	48	46	41	31
21:00	25	34	26	23	21	20	31	40	29	27	26	25	41	48	46	31	29	29
22:00	26	36	28	24	22	21	34	48	28	27	26	25	35	45	36	33	31	29
23:00	25	34	25	23	22	21	32	43	28	26	25	24	33	43	34	31	29	28
LD, dB(A)	45						36						45					
LN, dB(A)	49						29						33					
DNL, dB(A)	55						37						44					
Lmean, dB(A)	47						35						43					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

06-Dec-2008 Through 08-Dec-2008

Hour	Saturday						Sunday						Monday					
	Dec-06-2008						Dec-07-2008						Dec-08-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	32	36	34	32	30	29	41	52	43	39	36	35	30	37	33	29	26	24
01:00	32	37	33	31	30	29	40	49	42	37	35	35	26	30	28	26	24	23
02:00	31	34	33	31	30	29	40	49	43	38	36	35	32	37	34	30	27	26
03:00	33	37	35	33	31	30	39	44	41	38	35	34	34	39	36	33	30	29
04:00	34	39	37	33	29	28	39	42	40	38	36	35	32	40	35	30	28	26
05:00	37	46	37	32	29	28	39	43	41	39	37	36	31	36	33	30	27	25
06:00	41	53	41	36	33	30	38	42	40	37	36	35	32	38	35	31	28	27
07:00	45	56	43	35	31	30	45	52	43	37	36	35	35	39	37	34	32	31
08:00	38	49	39	34	31	28	40	45	43	39	36	35	35	41	38	34	32	30
09:00	35	45	38	31	30	29	42	53	41	38	35	33	37	43	40	36	34	32
10:00	46	56	40	31	28	26	45	56	44	38	34	32	46	56	49	41	35	33
11:00	38	51	38	28	25	23	51	60	47	38	34	32					42	40
12:00	36	49	36	27	23	22	55	60	48	43	39	37	44	51	47	42	38	36
13:00	36	47	38	31	26	23	58	69	54	43	38	34	46	55	49	43	38	36
14:00	38	51	41	30	22	21	52	65	49	42	39	36	44	52	47	43	38	35
15:00	48	62	41	24	20	19	61	69	55	44	38	35	40	48	43	38	34	32
16:00	60	68	50	33	22	19	54	66	52	41	35	31	40	50	43	37	33	31
17:00	50	63	50	32	25	23	50	61	49	37	30	28	52	60	41	35	33	31
18:00	37	44	38	35	34	26	32	41	33	30	29	27	35	42	39	33	30	29
19:00	37	40	38	37	35	34	35	45	37	31	29	27	34	41	37	32	30	28
20:00	37	41	39	36	35	34	32	37	33	31	28	27	34	44	37	31	27	25
21:00	37	48	38	35	33	33	30	37	32	29	27	25	37	46	40	33	27	24
22:00	40	50	41	37	35	34	35	43	38	34	30	28	31	41	34	26	22	21
23:00	40	47	41	38	36	35	36	43	39	34	31	30	31	40	34	26	23	22
LD, dB(A)	49						53						44					
LN, dB(A)	37						39						31					
DNL, dB(A)	49						52						43					
Lmean, dB(A)	48						51						42					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

09-Dec-2008 Through 10-Dec-2008

Hour	Tuesday						Wednesday											
	Dec-09-2008						Dec-10-2008											
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)						
00:00	33	41	36	31	25	23	27	29	26	23	21	20						
01:00	42	53	46	38	32	29	24	28	25	23	21	20						
02:00	37	47	40	34	28	25	27	38	24	22	20	20						
03:00	38	46	42	37	31	27	25	33	25	21	20	19						
04:00	38	44	39	36	34	33	24	29	26	23	22	21						
05:00	44	55	48	39	32	29	25	29	27	24	22	21						
06:00	45	56	49	40	28	26	29	34	31	28	25	22						
07:00	46	55	50	43	32	29	31	35	34	31	28	27						
08:00	44	55	48	40	34	30	35	42	37	34	32	30						
09:00	49	58	53	46	38	36	38	43	40	37	33	32						
10:00	48	56	52	45	39	37				39	37	36						
11:00	45	55	49	41	34	31												
12:00	50	59	53	45	38	36												
13:00	46	54	49	43	37	34												
14:00	46	55	49	43	37	34												
15:00	49	59	52	45	38	36												
16:00	42	51	45	39	33	28												
17:00	32	41	35	29	26	25												
18:00	36	46	38	33	29	27												
19:00	33	41	37	31	27	25												
20:00	29	37	30	26	24	23												
21:00	27	38	27	24	23	22												
22:00	25	32	27	23	22	21												
23:00	25	35	26	23	22	21												
LD, dB(A)	45						35											
LN, dB(A)	40						26											
DNL, dB(A)	48																	
Lmean, dB(A)	44						31											
Hours (Day)	15						3											
Hours (Night)	9						7											
Hours (Total)	24						10											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

12-Nov-2008 Through 14-Nov-2008

Hour	Wednesday						Thursday						Friday					
	Nov-12-2008						Nov-13-2008						Nov-14-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00																		
01:00																		
02:00																		
03:00													34	46	35	30	28	27
04:00													37	47	40	33	30	29
05:00													33	43	34	30	29	28
06:00													41	52	43	35	30	29
07:00													43	54	46	38	33	32
08:00													43	54	45	36	33	32
09:00													56	67	59	47	39	35
10:00													56	66	59	52	45	40
11:00													59	70	61	53	47	44
12:00													60	70	63	56	49	45
13:00													59	68	62	54	48	44
14:00																57	49	46
15:00																		
16:00																		
17:00																		
18:00																		
19:00																		
20:00																		
21:00																		
22:00																		
23:00																		
LD, dB(A)													57					
LN, dB(A)													38					
DNL, dB(A)													55					
Lmean, dB(A)													55					
Hours (Day)	0						0						7					
Hours (Night)	0						0						4					
Hours (Total)	0						0						11					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

15-Nov-2008 Through 17-Nov-2008

Hour	Saturday						Sunday						Monday					
	Nov-15-2008						Nov-16-2008						Nov-17-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													34	40	37	34	28	26
01:00													34	39	37	32	29	25
02:00													34	44	36	31	28	27
03:00																		
04:00																		
05:00																		
06:00																		
07:00																		
08:00																		
09:00																		
10:00																		
11:00																		
12:00																		
13:00																		
14:00																		
15:00																		
16:00																		
17:00																		
18:00																		
19:00																		
20:00																		
21:00																		
22:00																		
23:00																		
LD, dB(A)													34					
LN, dB(A)																		
DNL, dB(A)																		
Lmean, dB(A)													34					
Hours (Day)	0						0						0					
Hours (Night)	0						0						3					
Hours (Total)	0						0						3					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

18-Nov-2008 Through 20-Nov-2008

Hour	Tuesday						Wednesday						Thursday					
	Nov-18-2008						Nov-19-2008						Nov-20-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													33	40	34	30	27	25
01:00													33	40	35	31	28	27
02:00													46	58	49	41	35	31
03:00													51	61	54	47	41	38
04:00													55	66	58	49	42	39
05:00													58	69	61	53	46	42
06:00													59	70	63	55	48	45
07:00													57	68	61	53	47	43
08:00													58	69	62	53	47	44
09:00													58	69	62	52	46	42
10:00													58	69	61	52	46	43
11:00													56	67	59	52	47	43
12:00													57	66	60	53	48	44
13:00																53	45	41
14:00													77	94	57	49	43	39
15:00										38	28	25	52	63	55	47	41	38
16:00							34	42	36	32	28	25	48	58	51	44	38	36
17:00							33	44	34	30	27	25	40	51	43	36	31	27
18:00							27	36	29	25	21	19	35	45	38	31	26	25
19:00							29	36	31	27	21	20	33	43	36	29	26	25
20:00							29	36	32	27	23	21	32	40	34	29	25	24
21:00							30	37	33	28	25	23	27	33	29	26	25	24
22:00							33	39	36	31	27	24	27	35	29	26	24	23
23:00							31	39	34	30	27	26	24	33	25	23	22	22
LD, dB(A)							31						66					
LN, dB(A)							32						53					
DNL, dB(A)													65					
Lmean, dB(A)							31						64					
Hours (Day)	0						6						14					
Hours (Night)	0						2						9					
Hours (Total)	0						8						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

21-Nov-2008 Through 23-Nov-2008

Hour	Friday						Saturday						Sunday					
	Nov-21-2008						Nov-22-2008						Nov-23-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	28	37	29	24	23	22	42	56	41	37	36	34	36	41	38	36	33	31
01:00	33	32	29	25	24	23	49	64	40	36	33	31	35	41	38	34	31	28
02:00	26	33	28	24	23	22	34	38	36	33	31	30	36	40	38	35	32	30
03:00	26	32	28	25	23	22	33	37	35	33	30	29	34	39	36	33	31	30
04:00	34	43	36	30	27	25	34	39	37	34	31	30	40	53	37	32	29	27
05:00	33	39	36	32	29	27	32	40	34	31	28	27	39	51	40	36	33	31
06:00	34	39	36	34	31	30	40	53	37	32	30	28	39	45	42	38	34	31
07:00	38	44	41	38	34	31	38	52	38	32	30	28	40	47	43	39	36	35
08:00	41	49	43	38	36	34	40	49	42	37	35	33	42	48	44	40	38	36
09:00	42	51	45	39	35	34	38	44	40	36	34	33	44	50	46	43	41	40
10:00	49	59	53	46	39	35	39	50	41	35	32	31	45	53	47	43	38	36
11:00	53	62	56	49	44	40	34	40	36	33	31	30	47	55	47	40	36	33
12:00	56	67	59	51	45	42	34	45	34	30	28	27	41	50	44	38	34	32
13:00	57	66	60	52	45	41	39	50	37	30	27	26	46	57	47	40	34	31
14:00	57	67	60	52	45	41	34	46	35	28	26	25	44	54	47	40	34	31
15:00				54	47	42	44	47	38	30	25	24	48	59	51	43	37	31
16:00	55	64	59	51	44	40	40	53	42	30	26	24	48	59	51	43	37	32
17:00	47	56	51	43	39	37	39	51	40	30	25	22	43	53	47	38	30	25
18:00	43	52	46	40	37	36	39	49	41	31	26	25	33	43	36	30	27	25
19:00	40	48	42	39	37	35	34	43	36	32	29	27	28	39	30	24	22	21
20:00	38	43	40	38	37	36	41	52	44	34	31	27	38	50	42	28	23	21
21:00	38	42	39	37	36	35	35	40	37	35	33	30	47	56	50	44	39	35
22:00	39	44	40	38	36	35	37	41	39	36	33	31	50	60	53	46	40	38
23:00	40	46	43	39	36	35	36	41	38	36	33	31	46	56	49	41	35	31
LD, dB(A)	52						39						44					
LN, dB(A)	35						41						43					
DNL, dB(A)	50						47						49					
Lmean, dB(A)	49						40						44					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

24-Nov-2008 Through 26-Nov-2008

Hour	Monday						Tuesday						Wednesday					
	Nov-24-2008						Nov-25-2008						Nov-26-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	38	49	41	34	30	28	38	44	41	36	32	30	29	32	29	27	24	23
01:00	34	43	36	31	28	27	35	41	37	34	30	28	27	31	29	26	24	23
02:00	30	39	32	28	26	25	35	43	38	34	31	30	28	33	31	28	25	23
03:00	28	32	30	27	25	24	36	42	39	34	29	26	26	29	27	26	24	24
04:00	30	37	33	29	26	24	36	42	40	34	31	29	29	32	30	29	27	25
05:00	27	33	30	26	24	23	40	45	42	39	37	35	31	38	33	31	28	27
06:00	29	39	30	26	24	22	39	43	40	38	36	35	30	34	32	30	28	26
07:00	31	40	33	29	26	23	37	40	38	37	35	35	33	39	35	32	30	28
08:00	37	49	37	33	31	29	41	46	43	40	38	36	43	53	44	39	32	31
09:00	34	45	35	32	30	29	44	50	46	43	41	40	41	47	43	39	37	35
10:00	45	57	42	32	29	28	45	51	48	44	42	40	43	53	43	39	37	35
11:00	51	51	42	37	34	31	43	47	44	42	40	39	50	62	48	39	36	34
12:00	40	52	39	32	29	27	46	51	48	45	43	41	45	53	45	41	37	35
13:00	40	48	43	38	34	30			47	41	36	34	48	55	44	38	34	33
14:00				40	37	35	45	56	48	39	36	34	44	56	45	39	35	33
15:00	47	56	45	40	37	34	50	59	53	46	38	33	45	53	47	43	39	37
16:00	38	47	41	36	32	31	41	51	43	38	34	31	43	50	46	42	39	37
17:00	48	44	38	32	29	28	42	49	46	38	32	30	42	55	42	32	19	17
18:00	35	42	38	33	27	26	33	39	35	32	29	25	28	38	31	25	19	17
19:00	36	44	39	35	32	30	33	44	35	29	26	23	29	38	32	27	25	24
20:00	35	40	37	34	32	31	36	44	39	35	31	26	29	33	31	28	26	23
21:00	35	40	37	34	31	29	22	27	24	21	20	19	37	45	37	32	29	28
22:00	36	41	39	36	33	31	24	30	26	24	21	20			34	31	28	26
23:00	37	42	39	37	34	32	25	32	27	24	22	22	29	33	31	29	26	24
LD, dB(A)	43						43						44					
LN, dB(A)	34						36						29					
DNL, dB(A)	44						45						42					
Lmean, dB(A)	42						42						42					
Hours (Day)	14						14						15					
Hours (Night)	9						9						8					
Hours (Total)	23						23						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

27-Nov-2008 Through 29-Nov-2008

Hour	Thursday						Friday						Saturday					
	Nov-27-2008						Nov-28-2008						Nov-29-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	30	33	32	29	27	26	27	37	29	24	22	21	34	41	37	32	28	27
01:00	31	35	33	30	28	26	27	36	31	24	22	21	34	41	37	30	27	26
02:00	32	39	34	31	28	26	26	32	28	25	23	22	29	37	30	28	26	25
03:00	31	36	34	31	27	25	22	29	25	22	18	17	32	38	35	31	29	27
04:00	32	39	34	31	28	27	20	31	20	18	17	17	33	37	35	32	30	29
05:00	34	40	36	33	30	28	23	33	27	20	18	17	31	38	34	30	28	27
06:00	33	43	34	30	27	25	26	32	29	23	19	18	30	36	32	29	28	27
07:00	32	36	33	31	29	28	29	35	31	27	24	23	33	43	36	31	28	27
08:00	38	47	40	32	28	26	25	33	28	24	22	21	37	50	37	30	28	27
09:00	42	52	45	37	31	29	30	39	32	27	25	23	44	57	39	35	29	28
10:00	50	61	50	41	36	32	32	42	34	30	28	27	41	49	42	33	28	26
11:00	42	52	46	38	32	29	32	43	34	29	27	25	40	51	41	35	29	26
12:00	45	55	49	42	37	34	33	44	34	30	27	26	43	53	46	39	33	30
13:00	50	60	53	46	39	36	49	63	43	32	29	27	47	58	50	42	37	34
14:00	49	59	52	44	39	36	32	41	34	30	27	26	47	58	50	42	36	33
15:00	42	51	45	38	35	33	37	50	36	30	26	25	47	57	49	41	36	33
16:00	40	50	42	36	32	30	42	51	42	32	28	26	45	57	46	39	34	30
17:00	41	50	44	37	31	29	36	49	37	30	27	26	36	45	38	33	29	27
18:00	38	50	41	32	29	28	36	46	35	31	28	26	46	57	49	39	32	30
19:00	33	43	36	30	28	27	43	55	47	33	29	27	43	52	46	39	33	30
20:00	30	38	33	29	27	26	37	49	36	30	28	27	43	54	46	38	32	31
21:00	29	37	31	28	26	25	30	36	32	29	27	26	35	46	35	32	30	29
22:00	36	50	37	27	25	24	38	48	39	33	29	27	32	37	34	32	30	28
23:00	27	37	31	25	23	22	34	45	34	31	30	29	31	35	33	31	29	28
LD, dB(A)	44						40						43					
LN, dB(A)	32						31						32					
DNL, dB(A)	44						40						43					
Lmean, dB(A)	42						38						42					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

30-Nov-2008 Through 02-Dec-2008

Hour	Sunday						Monday						Tuesday					
	Nov-30-2008						Dec-01-2008						Dec-02-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	36	47	38	33	30	28	30	37	32	29	27	26						
01:00	31	39	33	30	27	26	31	38	32	30	28	27						
02:00	32	41	33	29	27	26	37	46	40	34	32	30						
03:00	32	37	33	31	29	27	47	59	49	40	32	30						
04:00	31	42	32	29	27	26	47	58	49	41	31	29						
05:00	29	34	31	29	27	26	30	35	32	30	29	28						
06:00	31	37	33	30	28	27	35	42	39	32	30	29						
07:00	31	36	33	30	28	27	36	44	38	33	30	29						
08:00	41	53	43	34	31	30	37	45	38	35	32	30						
09:00	51	63	54	45	39	37	38	44	39	37	35	34						
10:00	59	70	61	51	43	38	40	50	43	37	34	33						
11:00	58	68	62	54	48	45	42	52	45	38	35	33						
12:00	57	67	60	53	47	44	40	50	43	37	34	33						
13:00	55	64	58	51	45	41	39	47	41	37	34	33						
14:00	56	66	60	52	46	43	44	55	46	38	35	33						
15:00	57	67	60	52	47	44	51	65	49	41	36	34						
16:00	55	65	59	52	47	44	40	50	43	37	34	33	50	58	46	40	37	35
17:00	58	69	62	52	45	39	35	42	37	34	30	28	44	56	46	37	34	32
18:00	46	57	49	41	35	32	34	41	37	34	30	29	38	44	40	36	33	30
19:00	46	56	48	40	34	31	33	41	35	32	29	28	41	45	43	41	38	35
20:00	44	54	46	40	37	35	36	45	36	33	30	28	36	42	39	35	33	31
21:00	43	53	46	39	34	31	35	40	37	34	31	28	33	37	35	32	30	28
22:00	31	38	33	30	28	27	40	48	39	34	30	27	33	38	36	32	29	28
23:00	31	39	32	29	27	26							32	37	34	32	28	26
LD, dB(A)	55						42						44					
LN, dB(A)	32						42						33					
DNL, dB(A)	53						48											
Lmean, dB(A)	53						42						43					
Hours (Day)	15						15						6					
Hours (Night)	9						8						2					
Hours (Total)	24						23						8					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

03-Dec-2008 Through 05-Dec-2008

Hour	Wednesday						Thursday						Friday					
	Dec-03-2008						Dec-04-2008						Dec-05-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	32	38	34	31	28	25	26	32	27	24	23	22	30	39	33	27	24	23
01:00	32	37	34	31	27	24	28	36	30	27	25	23	28	35	30	27	25	24
02:00	33	39	36	31	27	25	28	33	30	27	26	25	32	38	35	30	27	25
03:00	38	49	41	33	29	27	33	42	38	28	24	23	31	38	33	29	27	25
04:00	56	67	58	51	46	42	29	37	32	26	24	22	30	34	32	29	27	26
05:00	58	69	60	52	46	42	29	36	32	27	24	23	33	40	36	32	30	27
06:00	60	71	63	53	43	39	26	36	28	24	22	21	43	59	37	34	32	30
07:00	53	65	54	45	38	35	44	55	29	25	23	22	37	46	39	35	32	31
08:00	48	60	51	42	34	32	35	46	37	31	26	24	39	47	41	38	35	33
09:00	55	66	57	49	44	40	38	51	33	28	27	25	40	50	43	37	33	31
10:00	52	64	55	47	40	37	39	50	41	35	28	25	46	54	49	44	39	35
11:00	52	62	55	46	41	39	41	54	42	36	30	28	48	58	52	45	39	35
12:00	51	62	54	48	42	39	39	50	39	33	28	26	52	63	55	48	42	39
13:00	49	59	52	45	39	36	39	49	40	32	27	25	53	64	56	49	43	40
14:00	46	57	49	42	36	34	35	46	39	31	27	25	48	58	52	45	40	37
15:00	39	48	43	37	31	27	35	46	37	30	27	24	45	53	48	42	37	35
16:00	36	45	39	32	26	23			31	25	23	23	40	49	44	38	33	31
17:00	32	42	36	27	22	21	81	94	45	29	24	22	44	57	43	32	30	28
18:00	46	60	36	27	22	21	34	44	35	29	26	24	35	42	37	33	31	29
19:00	34	45	33	24	21	21	28	34	30	27	24	23	35	42	36	33	32	31
20:00	30	42	31	23	22	21	32	39	34	30	28	26	34	38	36	34	32	30
21:00	25	33	27	24	22	21	29	36	32	28	26	25	35	40	37	35	33	31
22:00	27	36	29	25	24	22	27	31	29	27	26	24	34	38	37	34	31	29
23:00	25	33	26	24	23	22	30	37	32	27	25	23	36	47	35	33	31	29
LD, dB(A)	49						69						46					
LN, dB(A)	53						29						36					
DNL, dB(A)	59						67						46					
Lmean, dB(A)	51						67						45					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

06-Dec-2008 Through 08-Dec-2008

Hour	Saturday						Sunday						Monday					
	Dec-06-2008						Dec-07-2008						Dec-08-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	34	41	36	33	31	29	33	40	35	32	27	23	32	36	34	31	29	27
01:00	33	38	36	32	29	28	33	40	36	30	25	22	29	34	32	29	26	24
02:00	30	35	32	29	26	25	35	45	37	33	29	27	30	36	32	29	27	25
03:00	31	36	32	30	28	27	33	40	36	31	27	24	32	38	35	32	29	27
04:00	32	36	34	31	29	28	33	40	37	31	28	25	35	43	39	32	29	27
05:00	33	40	35	32	29	28	34	43	39	30	26	23	33	41	36	31	28	26
06:00	33	39	37	32	29	27	32	39	34	31	29	28	35	43	38	33	31	29
07:00	33	39	36	32	29	28	33	39	36	32	29	27	36	42	38	35	32	29
08:00	38	48	40	35	33	31	36	43	38	36	32	30	38	44	40	38	36	35
09:00	41	45	43	41	37	36	40	48	41	38	36	34	42	50	45	41	37	35
10:00	42	49	44	38	33	31	47	56	49	43	39	36	56	68	59	48	41	36
11:00	32	40	34	31	27	26	50	59	53	47	42	39	58	69	62	54	48	45
12:00	35	46	37	32	27	25	50	59	53	47	42	39				55	46	41
13:00	39	51	40	31	26	23	50	58	52	47	42	39	55	64	58	51	45	43
14:00	37	48	39	31	26	24	53	64	56	50	45	42	55	64	59	52	45	41
15:00	38	50	39	33	28	25	52	62	54	48	43	39	49	58	53	47	42	40
16:00	47	60	47	37	30	27	52	63	55	47	41	38	48	57	52	45	39	36
17:00	58	71	59	39	29	27	47	59	50	40	34	32	46	55	49	43	38	36
18:00	33	43	35	31	28	27	36	45	38	35	33	31	44	55	47	39	35	34
19:00	30	35	32	29	27	24	39	45	41	38	35	34	40	49	43	37	33	31
20:00	30	34	32	29	26	24	36	41	39	36	33	32	40	49	44	38	32	30
21:00	32	41	34	30	28	25	35	40	38	35	32	30	41	52	45	36	29	27
22:00	32	38	34	31	27	24	40	48	43	38	35	34	33	43	37	27	24	22
23:00	32	38	35	31	28	26	37	45	40	35	32	29	32	42	36	29	24	23
LD, dB(A)	47						48						51					
LN, dB(A)	32						35						33					
DNL, dB(A)	46						47						50					
Lmean, dB(A)	45						46						49					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

09-Dec-2008 Through 10-Dec-2008

Hour	Tuesday						Wednesday											
	Dec-09-2008						Dec-10-2008											
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)						
00:00	36	46	39	32	26	24	26	31	28	25	23	22						
01:00	45	54	48	41	35	32	25	29	27	25	23	22						
02:00	41	51	44	36	30	28	24	29	26	23	22	21						
03:00	39	47	42	37	32	29	26	35	28	23	21	20						
04:00	38	46	40	37	34	33	28	32	30	28	25	24						
05:00	49	59	53	44	31	28	30	34	32	29	27	25						
06:00	52	62	56	47	30	27	33	38	35	32	29	27						
07:00	53	64	57	49	39	36	35	40	38	35	32	30						
08:00	53	64	56	47	40	36	39	45	42	38	35	33						
09:00	56	66	60	53	44	38	45	49	46	42	39	37						
10:00	55	65	58	50	44	41					43	41						
11:00	51	61	55	47	40	37												
12:00	55	65	58	50	44	41												
13:00	53	64	57	49	43	39												
14:00	53	63	57	49	42	34												
15:00	50	60	54	46	40	37												
16:00	51	61	54	46	37	33												
17:00	44	54	47	39	33	31												
18:00	40	50	44	36	31	29												
19:00	40	50	43	35	30	28												
20:00	30	36	32	29	27	25												
21:00	28	37	30	27	25	24												
22:00	26	32	29	25	24	23												
23:00	26	34	27	24	23	22												
LD, dB(A)	52						42											
LN, dB(A)	45						28											
DNL, dB(A)	53																	
Lmean, dB(A)	50						37											
Hours (Day)	15						3											
Hours (Night)	9						7											
Hours (Total)	24						10											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

12-Nov-2008 Through 14-Nov-2008

Hour	Wednesday						Thursday						Friday					
	Nov-12-2008						Nov-13-2008						Nov-14-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													43	52	34	30	28	26
01:00													36	45	36	33	30	28
02:00													34	43	36	32	29	27
03:00													40	45	37	32	30	28
04:00													33	38	35	32	30	28
05:00													35	41	36	34	31	29
06:00													39	48	41	37	34	32
07:00													40	47	42	38	36	35
08:00													48	53	43	38	36	35
09:00													53	64	56	47	40	37
10:00													56	64	54	46	38	36
11:00													56	67	59	50	44	41
12:00													60	68	59	50	44	42
13:00																52	46	44
14:00											44	39	54	65	57	50	45	42
15:00							53	65	52	42	38	36	54	65	57	49	46	43
16:00							47	54	44	39	37	35	53	62	53	45	41	38
17:00							41	45	43	40	38	36	55	58	49	41	35	33
18:00							42	48	45	41	37	34	36	45	37	34	32	31
19:00							44	49	46	43	39	37	39	49	38	33	31	30
20:00							44	49	46	43	39	34	34	43	36	33	31	30
21:00							44	49	46	43	40	37	37	41	36	34	31	30
22:00							45	49	46	42	38	33	38	45	38	34	31	30
23:00							47	47	42	35	30	28	41	41	36	33	30	27
LD, dB(A)							47						53					
LN, dB(A)							46						39					
DNL, dB(A)													52					
Lmean, dB(A)							47						51					
Hours (Day)	0						7						14					
Hours (Night)	0						2						9					
Hours (Total)	0						9						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

15-Nov-2008 Through 17-Nov-2008

Hour	Saturday						Sunday						Monday					
	Nov-15-2008						Nov-16-2008						Nov-17-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	33	37	35	32	29	28	49	60	40	36	33	30	45	53	42	36	30	26
01:00	34	42	37	33	29	26	37	44	41	36	30	26	38	44	42	36	28	24
02:00	34	41	37	33	28	24	37	44	40	36	32	29	55	52	42	36	30	25
03:00	46	53	37	31	27	25	44	50	42	36	31	28	39	49	43	36	30	27
04:00	31	38	34	30	27	25	34	42	38	32	28	26	37	46	41	34	27	23
05:00	33	39	36	32	28	26	46	50	43	35	31	29	37	43	40	37	32	29
06:00	34	42	37	33	29	26	44	49	43	37	33	28	39	43	41	38	35	32
07:00	40	47	43	38	35	32	46	48	44	39	34	29	37	48	38	34	31	29
08:00	40	45	43	39	35	33	54	62	47	43	38	32	35	44	37	34	31	30
09:00	52	56	43	37	33	31	46	57	46	42	39	36	39	48	41	36	33	32
10:00	62	66	50	38	34	32	54	65	49	40	37	35	39	50	42	35	33	31
11:00	71	72	44	35	31	29	64	70	55	39	35	32				39	34	32
12:00	65	77	59	42	34	31	60	70	53	38	33	30	40	51	42	35	31	30
13:00	72	82	66	46	35	33	65	76	59	44	34	30	41	52	44	36	31	29
14:00	65	78	59	42	36	33	73	83	65	49	38	33	54	61	43	34	30	28
15:00	68	71	62	44	35	31	72	85	67	51	40	33	38	48	41	34	31	28
16:00	67	75	58	41	35	32	71	84	69	51	42	38	36	49	38	33	28	26
17:00	75	80	53	39	35	32	69	82	65	48	40	38	29	36	32	27	23	22
18:00	60	71	49	40	37	35	63	73	57	43	40	39	31	33	29	26	23	21
19:00	53	64	46	42	38	36	61	69	46	41	39	38	35	45	33	28	24	23
20:00	58	70	48	42	39	36	49	58	48	44	41	38	31	37	34	30	26	24
21:00	59	63	48	43	39	37	44	49	46	42	38	35	39	44	40	34	31	30
22:00	46	55	43	39	36	34	43	48	46	42	39	33	38	43	41	36	33	30
23:00	50	61	42	38	35	33	41	47	44	39	33	28	38	43	40	37	32	29
LD, dB(A)	67						66						43					
LN, dB(A)	43						44						47					
DNL, dB(A)	65						64						53					
Lmean, dB(A)	65						64						45					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

18-Nov-2008 Through 20-Nov-2008

Hour	Tuesday						Wednesday						Thursday					
	Nov-18-2008						Nov-19-2008						Nov-20-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	43	46	41	37	34	29	40	46	42	37	31	24	46	55	35	28	25	24
01:00	37	44	41	36	31	28	38	44	41	38	32	29	43	50	36	32	29	27
02:00	39	48	44	36	30	27	40	50	42	38	33	29	45	56	49	41	35	32
03:00	40	46	44	39	30	28	41	53	42	37	32	29	53	62	56	49	43	40
04:00	40	45	43	39	34	31	40	46	43	38	34	31	52	62	56	49	43	40
05:00	43	50	46	42	38	33	39	47	42	38	34	31	54	64	58	50	43	39
06:00	44	50	46	44	40	38	43	49	46	42	39	37	53	63	57	49	43	40
07:00	46	50	48	45	43	41	43	48	46	43	40	38	57	66	60	53	47	44
08:00	47	50	48	46	44	42	46	50	48	45	42	39	56	66	59	52	46	43
09:00	45	51	48	42	39	37	46	51	49	45	42	40	55	65	59	51	47	44
10:00	45	55	47	41	39	37	43	50	45	41	38	36	57	68	61	52	47	43
11:00	48	56	47	40	37	36	42	51	46	39	34	32	57	67	60	52	46	44
12:00	48	56	48	41	37	35	50	61	46	38	33	31	55	64	58	51	45	42
13:00	46	54	47	39	36	34	46	50	39	33	30	29			59	50	44	41
14:00	48	55	47	40	36	34				32	28	25	52	63	54	47	42	39
15:00				41	37	35	65	73	39	27	24	22	52	62	55	47	42	39
16:00				40	37	35	64	71	41	24	21	19	48	58	52	44	38	35
17:00	43	47	44	42	40	38	40	51	32	25	21	19	44	54	46	39	35	32
18:00	43	49	45	42	40	36	56	43	30	24	22	21	44	53	46	38	31	26
19:00	43	49	45	42	39	37	28	35	31	27	22	20	35	46	38	30	27	25
20:00	45	50	48	45	40	37	29	35	32	28	24	22	32	41	35	30	27	25
21:00	45	50	48	44	42	40	27	34	30	26	24	22	29	36	31	28	26	25
22:00	43	48	46	42	39	37	28	33	30	27	24	22	29	37	31	27	25	24
23:00	43	52	43	40	36	34	48	56	37	28	25	23	24	33	24	22	21	21
LD, dB(A)	46						57						53					
LN, dB(A)	42						42						50					
DNL, dB(A)	49						56						57					
Lmean, dB(A)	45						55						52					
Hours (Day)	13						14						14					
Hours (Night)	9						9						9					
Hours (Total)	22						23						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

21-Nov-2008 Through 23-Nov-2008

Hour	Friday						Saturday						Sunday					
	Nov-21-2008						Nov-22-2008						Nov-23-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	23	29	24	22	21	20	45	59	43	39	37	35	43	48	44	40	36	33
01:00	29	39	32	25	23	22	47	60	44	39	37	35	44	53	46	39	34	29
02:00	22	26	24	22	21	20	40	47	44	39	34	32	41	46	44	40	37	35
03:00	23	27	24	22	21	20	49	62	43	39	35	32	45	46	43	39	36	31
04:00	26	31	28	25	23	22	48	52	48	46	34	31	46	57	47	45	35	29
05:00	28	37	30	27	25	24	47	54	39	32	29	26	46	58	46	38	34	30
06:00	34	41	37	33	29	27	47	61	39	34	31	29	53	61	48	40	38	34
07:00	44	47	43	39	36	33	49	60	43	38	34	31	44	54	47	40	36	33
08:00	38	44	40	37	35	33	44	50	46	43	40	38	45	51	47	43	40	38
09:00	42	53	44	37	35	33	52	50	44	38	35	34	53	64	49	46	43	41
10:00	47	57	51	43	38	35	51	62	45	36	33	31	68	75	54	46	44	43
11:00	51	60	54	46	41	39	53	63	43	34	32	29	69	78	57	45	43	43
12:00	53	63	57	48	42	40	59	68	45	43	42	33	67	76	60	48	42	37
13:00	53	63	57	48	42	39	55	66	48	43	33	28	71	81	64	46	36	33
14:00				50	44	41	62	72	47	36	29	26	72	84	70	49	39	33
15:00				48	43	41	60	73	52	32	27	24	70	83	69	50	40	36
16:00	50	59	53	46	42	39	61	74	56	34	25	22	72	85	68	51	42	36
17:00	48	59	48	43	40	39	61	71	52	28	22	21	63	75	55	38	29	26
18:00	46	55	46	42	39	37	59	68	46	38	33	30	56	63	49	48	38	29
19:00	42	48	44	41	39	38	49	60	46	42	39	36	49	52	49	48	47	46
20:00	44	52	43	41	39	38	62	73	53	47	43	40	45	54	49	38	28	25
21:00	42	49	43	40	38	37	52	63	48	43	39	34	48	58	51	43	37	34
22:00	46	54	42	40	38	37	44	50	45	41	37	30	51	59	51	43	37	34
23:00	46	51	45	41	38	36	44	51	44	40	34	31	42	53	46	37	30	27
LD, dB(A)	48						58						67					
LN, dB(A)	40						46						47					
DNL, dB(A)	49						57						65					
Lmean, dB(A)	46						56						65					
Hours (Day)	13						15						15					
Hours (Night)	9						9						9					
Hours (Total)	22						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

24-Nov-2008 Through 26-Nov-2008

Hour	Monday						Tuesday						Wednesday					
	Nov-24-2008						Nov-25-2008						Nov-26-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	32	42	33	29	27	25	42	48	45	40	35	31	48	51	50	48	46	44
01:00	31	40	33	29	26	25	42	47	45	40	34	28	48	51	50	48	46	45
02:00	30	38	32	29	26	25	39	46	42	38	34	31	46	51	50	47	30	27
03:00	33	40	35	30	27	25	41	48	45	40	33	30	34	40	36	34	31	30
04:00	44	51	50	33	25	24	39	44	41	38	34	32	35	41	38	34	31	30
05:00	42	51	49	34	28	25	48	51	50	49	37	31	39	46	40	37	33	31
06:00	37	43	39	35	30	26	44	49	46	43	41	38	47	50	41	37	32	27
07:00	37	44	40	35	32	28	47	50	49	46	44	42	40	45	42	40	37	35
08:00	43	49	41	38	34	32	49	53	51	49	46	45	51	57	46	42	39	37
09:00	37	47	40	36	32	31	48	53	51	48	42	40	41	51	43	38	35	33
10:00	53	47	33	31	29	28	44	52	46	41	38	37	46	54	39	36	34	32
11:00	49	61	42	34	31	29	56	61	48	47	38	37	50	63	45	36	32	29
12:00	49	58	48	43	34	33				46	45	44	63	73	47	33	28	26
13:00				45	36	33				43	34	32	59	72	51	33	28	25
14:00	61	68	51	41	36	33	62	73	50	40	35	32	68	79	55	35	29	26
15:00	52	64	47	39	35	33	57	64	54	45	36	31	71	80	55	38	31	28
16:00	63	61	47	39	36	34	66	74	52	40	36	33	68	76	53	36	28	25
17:00	42	49	42	40	38	36	53	62	48	44	42	39	65	75	55	35	23	18
18:00	49	61	50	42	38	36	47	53	49	46	40	37	45	57	38	32	25	21
19:00	52	55	52	51	46	41	52	53	50	48	46	45	47	53	49	47	34	29
20:00	48	52	49	46	43	40	52	60	49	48	46	45				49	47	46
21:00	47	52	49	46	42	38	47	51	49	47	46	45				49	36	31
22:00	47	51	48	44	41	38	48	53	50	48	46	44	50	63	41	36	32	29
23:00	46	51	47	44	40	36	49	53	50	48	47	45						
LD, dB(A)	54						58						64					
LN, dB(A)	42						45						46					
DNL, dB(A)	54						57											
Lmean, dB(A)	52						55						62					
Hours (Day)	14						13						13					
Hours (Night)	9						9						8					
Hours (Total)	23						22						21					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

27-Nov-2008 Through 29-Nov-2008

Hour	Thursday						Friday						Saturday					
	Nov-27-2008						Nov-28-2008						Nov-29-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00																		
01:00																		
02:00																		
03:00																		
04:00																		
05:00																		
06:00																		
07:00																		
08:00																		
09:00																		
10:00																		
11:00																		
12:00																		
13:00																		
14:00																		
15:00																		
16:00																		
17:00																		
18:00																		
19:00																		
20:00																		
21:00																		
22:00																		
23:00																		
LD, dB(A)																		
LN, dB(A)																		
DNL, dB(A)																		
Lmean, dB(A)																		
Hours (Day)	0						0						0					
Hours (Night)	0						0						0					
Hours (Total)	0						0						0					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

30-Nov-2008 Through 02-Dec-2008

Hour	Sunday						Monday						Tuesday					
	Nov-30-2008						Dec-01-2008						Dec-02-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													42	49	45	41	37	35
01:00													41	47	44	40	34	30
02:00													41	47	44	40	34	31
03:00													38	44	41	36	30	28
04:00													41	48	44	40	34	28
05:00													47	51	49	47	41	36
06:00													50	53	48	45	42	38
07:00													46	51	48	45	43	42
08:00													50	54	52	49	47	45
09:00													51	55	52	50	48	47
10:00													49	53	50	47	46	45
11:00													56	70	49	46	45	44
12:00													54	59	48	46	44	43
13:00													64	71	52	48	47	46
14:00																46	37	35
15:00													71	76	49	39	36	34
16:00													60	69	50	44	40	38
17:00													59	68	49	44	40	38
18:00													49	57	47	44	41	39
19:00													49	52	50	49	48	45
20:00													49	52	50	49	48	47
21:00										48	45	43	48	51	49	48	47	41
22:00							45	50	48	44	40	35	41	46	44	40	36	32
23:00							42	48	45	41	37	35	40	45	42	39	34	31
LD, dB(A)													61					
LN, dB(A)							44						44					
DNL, dB(A)													59					
Lmean, dB(A)							44						59					
Hours (Day)	0						0						14					
Hours (Night)	0						2						9					
Hours (Total)	0						2						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

03-Dec-2008 Through 05-Dec-2008

Hour	Wednesday						Thursday						Friday					
	Dec-03-2008						Dec-04-2008						Dec-05-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	37	44	40	35	31	28	39	41	32	25	22	22	25	29	27	24	23	22
01:00	37	44	41	35	29	23	35	43	38	31	24	22	29	30	27	25	23	22
02:00	40	47	43	36	26	24	35	42	39	32	24	22	33	45	36	26	24	23
03:00	41	51	44	37	30	28	36	47	40	28	22	21	34	44	38	31	26	24
04:00	50	61	53	45	40	37	41	50	48	23	21	20	36	42	39	35	30	27
05:00	53	62	56	50	48	45	49	51	50	49	37	25	45	51	51	37	31	27
06:00	55	66	58	51	43	39	25	30	26	24	22	22	52	55	53	51	51	50
07:00	48	58	49	41	37	34	37	48	39	31	23	22	52	58	52	51	50	49
08:00	44	55	47	40	36	34	37	47	39	34	27	24	49	57	52	42	37	34
09:00	52	61	55	48	43	40	40	55	35	26	24	23	45	57	49	40	35	33
10:00	55	66	58	48	42	39	48	61	42	32	26	24	47	57	51	43	37	35
11:00	52	62	55	47	42	39	40	50	39	29	26	25	51	60	55	47	41	38
12:00	53	60	55	52	45	41	41	53	40	30	25	24	54	63	58	49	43	39
13:00	52	57	54	51	50	49	43	54	42	31	26	24	54	63	58	49	42	38
14:00	49	58	52	43	37	33	47	57	47	45	28	24	51	61	55	47	40	37
15:00	43	54	45	36	31	29				33	23	22	51	62	54	46	40	37
16:00	46	51	49	47	29	27				35	26	22	48	58	50	42	37	35
17:00	48	52	49	47	47	46	58	60	47	46	24	21	49	57	49	40	37	35
18:00	49	55	49	48	47	47	47	55	47	45	45	44	57	63	53	51	50	48
19:00	49	51	50	49	48	47	47	54	47	46	45	45	54	57	53	52	51	46
20:00	50	55	51	50	49	21	49	53	50	48	46	46	53	55	54	53	52	51
21:00	25	35	26	22	21	20	49	51	50	49	49	48	51	55	54	51	43	40
22:00	27	34	29	25	22	21	45	50	50	27	24	23	44	50	47	44	39	34
23:00	26	34	27	24	23	22	26	35	27	24	23	22	42	50	44	41	37	33
LD, dB(A)	50						49						52					
LN, dB(A)	49						42						44					
DNL, dB(A)	55						50						53					
Lmean, dB(A)	50						47						50					
Hours (Day)	15						13						15					
Hours (Night)	9						9						9					
Hours (Total)	24						22						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

06-Dec-2008 Through 08-Dec-2008

Hour	Saturday						Sunday						Monday					
	Dec-06-2008						Dec-07-2008						Dec-08-2008					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	43	48	44	40	36	33	51	59	46	44	42	41	37	44	40	36	31	27
01:00	39	47	42	37	32	30	46	51	46	43	42	41	40	50	43	37	33	28
02:00	35	42	38	33	29	26	53	65	45	42	32	26	42	51	45	38	34	31
03:00	36	42	39	35	29	27	48	61	40	33	27	22	38	44	41	37	32	30
04:00	38	45	41	36	32	29	41	48	41	35	28	24	38	46	41	36	32	29
05:00	44	52	51	38	34	31	41	48	43	35	30	28	38	47	41	36	29	26
06:00	54	57	54	53	52	51	42	47	41	37	34	31	40	46	42	39	36	33
07:00	50	53	52	52	40	35	38	44	41	37	33	31	42	51	45	39	34	32
08:00	43	50	46	41	38	36	43	48	45	42	39	37	43	49	45	43	40	38
09:00	55	62	48	44	41	38	46	58	45	40	35	33	51	60	55	46	41	38
10:00	48	60	45	37	34	32	51	62	54	44	38	35	61	71	65	56	47	42
11:00	50	64	47	32	28	27	54	65	56	47	40	36	63	72	67	59	51	47
12:00	64	75	54	35	27	25	63	74	61	50	41	36				58	48	44
13:00	70	79	58	38	27	24	67	77	61	52	44	40	69	70	62	53	46	43
14:00	68	79	59	39	28	25	68	81	64	52	45	41	59	68	63	55	47	42
15:00	68	78	62	40	28	24	70	80	63	52	45	39	57	66	61	53	46	42
16:00	68	78	63	44	28	24	69	80	65	51	41	38	56	65	59	50	43	40
17:00	75	83	66	49	34	29	69	80	62	44	39	37	51	62	55	46	41	39
18:00	50	62	48	42	38	33	55	68	50	43	40	39	49	59	53	44	39	36
19:00	43	52	43	39	34	30	46	55	48	43	40	37	43	53	47	39	33	29
20:00	44	48	42	37	33	29	42	48	44	40	37	35	45	55	49	39	32	27
21:00	50	64	46	43	36	33	41	50	44	40	36	33	46	57	50	41	33	29
22:00	54	59	46	44	42	41	46	55	49	42	39	37	40	54	40	28	25	24
23:00	47	51	46	44	42	42	42	50	46	39	35	32	34	45	37	29	25	24
LD, dB(A)	66						64						60					
LN, dB(A)	48						48						39					
DNL, dB(A)	64						63						58					
Lmean, dB(A)	64						62						58					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Prepared for National Park Service

February 2011

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

09-Dec-2008 Through 10-Dec-2008

Hour	Tuesday						Wednesday											
	Dec-09-2008						Dec-10-2008											
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin						
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)						
00:00	37	48	40	31	27	25	32	39	36	31	26	24						
01:00	43	55	46	37	33	31	33	41	37	30	24	22						
02:00	39	50	43	35	31	29	31	40	34	27	23	22						
03:00	34	40	36	33	30	28	33	41	37	30	24	22						
04:00	35	41	37	33	31	30	31	37	34	29	25	24						
05:00	41	51	44	36	31	29	35	42	38	33	28	26						
06:00	48	59	51	42	33	30	40	47	43	38	32	29						
07:00	49	60	52	43	35	33	44	49	47	44	40	36						
08:00	48	59	51	44	40	37				45	42	40						
09:00	53	62	55	48	44	41												
10:00	49	59	52	45	40	36												
11:00	50	62	54	45	39	36												
12:00	52	63	54	48	43	41												
13:00	50	61	53	45	41	38												
14:00	50	61	52	45	39	35												
15:00	50	60	52	45	39	37												
16:00	67	64	52	43	37	35												
17:00	43	53	44	38	35	33												
18:00	39	49	41	37	35	33												
19:00	44	46	38	35	32	31												
20:00	34	39	36	34	31	28												
21:00	33	39	36	32	29	27												
22:00	33	41	36	31	28	25												
23:00	31	37	33	30	27	26												
LD, dB(A)	56						44											
LN, dB(A)	41						35											
DNL, dB(A)	55																	
Lmean, dB(A)	54						38											
Hours (Day)	15						1											
Hours (Night)	9						7											
Hours (Total)	24						8											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

Appendix D

2009 Hourly A-weighted Sound Level Tables

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

16-Feb-2009 Through 18-Feb-2009

Hour	Monday						Tuesday						Wednesday					
	Feb-16-2009						Feb-17-2009						Feb-18-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00							34	39	36	33	31	29	28	34	30	27	26	24
01:00							33	39	35	33	31	30	34	42	36	31	28	27
02:00							35	39	37	34	32	30	28	33	30	27	26	24
03:00							34	39	36	33	31	30	29	34	31	29	27	25
04:00							34	39	36	33	32	31	31	35	33	30	28	27
05:00							37	46	38	35	33	31	31	37	33	31	28	27
06:00							38	47	41	36	33	31	33	43	36	29	26	25
07:00							40	48	43	38	33	31	33	42	36	30	27	25
08:00							45	54	49	42	37	35	31	40	33	29	26	25
09:00							53	63	57	49	42	39	29	40	31	26	22	21
10:00							60	68	63	58	52	49	28	37	30	25	21	19
11:00							60	69	64	58	52	47	31	40	34	27	22	19
12:00							62	71	66	60	53	49	36	49	37	29	23	21
13:00							62	70	65	59	54	49	39	50	44	31	25	22
14:00							61	69	64	58	51	48	45	59	39	30	23	21
15:00							61	69	64	58	50	45	34	42	36	29	23	20
16:00							61	70	64	57	50	46	35	46	38	28	23	21
17:00							62	71	65	59	52	47	43	57	42	34	28	23
18:00	38	49	40	34	29	28	55	64	58	51	43	39	35	46	38	29	25	23
19:00	36	47	36	32	30	29	43	52	47	40	34	31	37	50	38	30	27	25
20:00	35	46	35	32	31	30	41	49	44	38	34	32	33	42	35	30	28	26
21:00	36	48	36	33	31	30	40	48	43	37	32	29	55	58	58	56	28	26
22:00	34	42	35	32	31	30	34	44	37	29	26	25	57	58	57	57	56	55
23:00	34	38	36	33	31	30	29	35	31	28	26	25	56	57	57	56	55	55
LD, dB(A)	36						59						44					
LN, dB(A)	34						35						50					
DNL, dB(A)							57						56					
Lmean, dB(A)	36						57						47					
Hours (Day)	4						15						15					
Hours (Night)	2						9						9					
Hours (Total)	6						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

19-Feb-2009 Through 21-Feb-2009

Hour	Thursday Feb-19-2009						Friday Feb-20-2009						Saturday Feb-21-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	57	59	58	56	56	55	60	60	60	60	59	59	60	66	62	60	59	58
01:00	59	60	59	59	58	58	60	60	60	60	59	59	59	60	60	59	58	58
02:00	59	60	59	59	58	58	60	60	60	60	59	59	59	61	60	59	59	58
03:00	59	60	60	59	59	58	59	60	60	60	59	59	60	61	60	60	59	59
04:00	60	60	60	60	59	59	59	60	60	59	59	59	60	61	61	60	59	59
05:00	60	60	60	60	59	59	60	60	60	60	59	59	60	61	61	60	60	59
06:00	60	60	60	60	59	59	60	60	60	60	59	59	60	61	61	60	60	59
07:00	59	60	60	60	54	54	60	61	60	60	59	59	60	61	61	60	54	54
08:00	59	60	60	60	59	54	60	61	60	60	59	59	60	61	61	60	58	55
09:00	59	60	60	59	59	54	59	60	60	59	59	57	59	61	60	59	57	56
10:00	58	60	59	59	31	24	47	59	51	32	26	23	58	60	59	57	57	55
11:00	36	45	41	32	26	23	42	57	36	28	22	20	57	58	58	57	57	56
12:00	39	47	42	34	28	23	31	41	34	26	21	19	57	59	58	57	57	56
13:00	42	51	45	39	32	28	51	65	47	33	24	21	59	64	59	58	57	23
14:00	40	51	43	35	29	25	39	52	38	30	24	21	52	64	44	31	25	22
15:00	37	46	40	34	27	22	46	56	41	28	20	19	53	64	50	39	28	24
16:00	47	58	53	35	27	23	48	59	39	29	20	19	56	65	58	56	34	27
17:00				35	24	21	43	54	37	23	19	18	58	66	58	57	30	23
18:00	49	52	41	27	20	17	39	51	42	28	19	17	50	60	54	42	28	22
19:00	56	60	60	33	23	22	45	55	44	33	22	21	46	57	48	39	26	23
20:00	60	60	60	60	59	34	57	60	59	56	54	22	38	51	40	28	24	22
21:00	60	60	60	60	59	59	59	59	59	59	58	58	36	47	39	32	28	25
22:00	60	62	60	60	59	59	59	60	59	59	58	58	53	59	58	35	29	28
23:00	60	60	60	60	59	59	63	71	66	60	58	58	59	60	60	59	58	57
LD, dB(A)	56						55						56					
LN, dB(A)	59						60						59					
DNL, dB(A)	65						66						65					
Lmean, dB(A)	57						57						58					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

22-Feb-2009 Through 24-Feb-2009

Hour	Sunday						Monday						Tuesday					
	Feb-22-2009						Feb-23-2009						Feb-24-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	58	59	58	58	57	56	60	60	60	60	59	59	30	39	32	29	27	26
01:00	58	59	59	58	57	57	60	61	60	60	59	59	32	37	35	31	28	26
02:00	58	59	58	58	57	57	60	61	61	60	59	59	34	39	37	34	31	30
03:00	58	59	58	58	57	57	60	61	60	60	59	59	32	37	34	32	29	28
04:00	58	59	58	58	57	57	57	61	60	59	25	24	33	41	34	31	28	26
05:00	58	59	58	58	57	57	31	42	31	28	26	25	32	39	34	30	28	27
06:00	58	59	59	58	57	57	32	41	32	30	27	26	33	41	35	31	28	26
07:00	58	59	58	58	57	57	34	41	36	32	31	30	39	51	38	32	29	27
08:00	57	60	58	58	55	54	37	41	38	36	34	29	34	45	36	28	26	24
09:00	59	60	60	59	54	53	36	44	34	31	30	28	37	50	37	28	26	24
10:00	58	65	60	59	38	27	48	61	48	37	32	29	33	43	35	29	25	23
11:00	54	66	54	39	31	26	32	41	35	30	27	25	32	41	36	28	24	22
12:00	54	67	53	46	40	35	36	50	34	28	26	25	29	38	32	26	22	20
13:00	56	66	56	49	41	36	36	49	38	29	26	25	29	40	33	24	21	20
14:00	55	64	55	48	42	38	36	47	37	29	26	25	36	50	33	24	21	19
15:00	50	61	52	45	38	33	39	52	39	31	29	27	33	46	34	24	21	19
16:00	57	71	60	46	41	37	44	54	45	33	29	27	34	45	38	24	20	19
17:00	51	60	56	41	34	29					25	24	35	47	37	23	20	20
18:00	60	66	60	59	58	58	32	43	33	27	26	25	36	47	40	28	24	23
19:00	60	63	60	59	59	59	31	41	32	29	27	26	33	43	31	27	25	23
20:00	60	62	60	59	59	58	31	41	32	29	27	27	29	34	31	28	26	25
21:00	60	63	61	59	58	58	39	53	35	28	27	26	45	50	42	31	27	25
22:00	59	60	59	59	58	58	29	39	29	27	26	25	53	69	41	28	26	25
23:00	59	60	60	59	59	58	30	38	32	29	27	26	29	36	30	28	27	26
LD, dB(A)	57						40						37					
LN, dB(A)	58						57						44					
DNL, dB(A)	64						63						50					
Lmean, dB(A)	58						53						41					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

25-Feb-2009 Through 27-Feb-2009

Hour	Wednesday						Thursday						Friday					
	Feb-25-2009						Feb-26-2009						Feb-27-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	30	34	32	29	27	27	34	43	33	30	28	27	28	31	31	27	24	23
01:00	31	35	33	30	28	27	30	34	32	30	28	27	28	31	30	27	26	25
02:00	29	32	30	28	27	26	29	35	31	28	26	25	30	39	30	28	27	26
03:00	31	35	33	31	28	26	33	39	36	32	29	27	32	43	31	29	28	27
04:00	33	38	35	32	30	28	32	39	35	30	26	25	34	46	33	31	30	29
05:00	37	42	40	36	33	31	29	35	31	28	25	23	33	37	35	33	31	31
06:00	38	48	41	35	32	31	35	45	38	32	28	27	37	47	38	34	32	31
07:00	38	49	39	34	31	30	38	51	41	32	28	26	39	50	42	34	32	32
08:00	36	48	38	31	28	27	37	47	38	33	29	27	39	51	42	34	32	32
09:00	32	39	35	31	27	26	34	45	36	28	24	23	36	45	38	34	31	31
10:00	32	40	35	30	26	24	36	47	40	31	25	22	40	53	41	32	30	29
11:00	31	40	34	27	23	21	33	43	36	29	23	21	33	44	34	30	29	28
12:00	36	49	37	28	24	22	37	48	40	29	23	21	36	48	39	30	28	27
13:00	27	36	30	25	22	21	32	43	35	26	21	19	36	48	38	28	25	24
14:00	58	60	35	26	22	21				27	21	19	34	44	36	30	25	23
15:00	31	43	34	23	20	19				42	31	25	36	48	39	29	24	23
16:00	33	45	37	25	19	18	48	59	49	38	29	24	42	54	45	30	25	24
17:00	35	47	39	23	20	19	53	65	55	43	29	25	44	48	43	41	30	27
18:00	32	45	35	23	21	20	50	61	50	35	27	23	64	76	62	44	40	36
19:00	34	47	29	24	22	22	30	40	33	26	24	23	50	61	53	44	39	36
20:00	30	41	29	25	22	22	40	52	36	27	23	22	50	60	54	46	38	35
21:00	36	49	34	27	25	23	39	48	38	26	23	22	48	59	45	39	36	34
22:00	29	35	31	28	26	25	34	46	37	26	22	21	37	47	40	33	28	27
23:00	30	35	32	29	28	26	37	49	39	25	23	22	30	38	31	29	27	26
LD, dB(A)	47						45						52					
LN, dB(A)	33						33						33					
DNL, dB(A)	46						44						51					
Lmean, dB(A)	45						43						50					
Hours (Day)	15						13						15					
Hours (Night)	9						9						9					
Hours (Total)	24						22						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

28-Feb-2009 Through 02-Mar-2009

Hour	Saturday						Sunday						Monday					
	Feb-28-2009						Mar-01-2009						Mar-02-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	30	36	32	29	27	26	25	30	27	25	23	22	31	40	32	29	27	26
01:00	28	33	29	27	26	25	28	32	30	28	26	25	30	40	30	28	26	25
02:00	29	35	32	28	27	26	29	34	31	28	27	26	29	33	30	28	26	25
03:00	30	34	32	30	28	26	30	36	33	29	26	26	29	35	31	29	27	26
04:00	32	39	35	30	27	26	30	34	32	29	27	25	29	33	31	29	27	26
05:00	32	40	33	29	27	26	31	38	32	29	28	27	29	38	31	28	26	25
06:00	29	34	31	28	26	25	30	33	32	29	27	26	33	44	37	29	26	25
07:00	36	47	37	33	30	28	32	38	34	31	29	28	37	48	41	30	27	25
08:00	35	42	39	34	28	26	30	38	32	28	27	26	37	49	40	28	26	24
09:00	38	47	41	36	33	31	32	42	34	28	25	24				28	26	25
10:00	42	50	46	40	36	35	31	42	32	28	25	23				27	24	23
11:00	44	52	47	41	36	33	39	51	41	32	25	23	34	46	37	26	22	22
12:00	46	54	49	43	37	34	39	50	41	33	26	23	37	48	40	28	23	21
13:00	53	64	52	46	41	38	54	66	56	44	31	26	33	45	35	24	20	19
14:00	55	64	55	49	43	38	58	69	60	51	45	41	37	48	35	20	19	18
15:00	48	56	49	43	38	34	58	71	58	49	41	33	37	47	38	23	19	18
16:00	52	62	57	43	36	33	62	74	64	51	41	35	33	46	35	21	18	18
17:00	56	69	55	40	33	28	59	69	60	45	42	32	36	48	39	30	23	18
18:00	53	63	43	35	27	23	60	64	51	41	26	25	53	64	44	29	24	23
19:00	60	73	36	32	29	25	29	35	32	28	26	25	61	69	63	41	40	40
20:00	33	39	33	32	30	30	31	39	32	29	28	27	45	54	50	41	40	40
21:00	41	50	42	31	29	22	33	42	35	32	30	29	41	45	42	41	41	40
22:00	34	44	34	29	22	22	31	37	33	31	29	28	41	43	42	41	40	40
23:00	31	40	32	29	23	22	33	43	33	31	28	27	41	42	41	41	40	40
LD, dB(A)	52						55						50					
LN, dB(A)	31						30						36					
DNL, dB(A)	50						53						49					
Lmean, dB(A)	50						53						48					
Hours (Day)	15						15						13					
Hours (Night)	9						9						9					
Hours (Total)	24						24						22					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

03-Mar-2009 Through 05-Mar-2009

Hour	Tuesday						Wednesday						Thursday					
	Mar-03-2009						Mar-04-2009						Mar-05-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	41	42	41	41	40	40	29	34	31	29	27	26	31	37	34	29	27	25
01:00	41	42	41	40	40	40	32	36	34	31	28	27	32	38	35	30	28	26
02:00	33	41	34	32	30	29	33	39	36	33	30	28	32	38	34	30	27	25
03:00	32	35	33	31	30	29	33	39	35	32	30	29	32	38	35	31	28	26
04:00	33	36	34	32	30	29	36	44	34	32	29	27	32	39	33	30	28	27
05:00	36	49	34	32	30	30	33	38	35	32	30	28	34	44	34	29	27	25
06:00	37	48	40	31	30	29	40	52	42	33	30	27	37	48	39	31	27	26
07:00	39	50	42	34	33	30	39	51	42	32	28	26	38	50	40	30	26	25
08:00	35	42	37	34	31	30	42	54	44	32	30	29	38	49	42	31	27	26
09:00	36	47	35	31	30	29	37	48	40	30	27	24	45	56	49	38	30	27
10:00	35	47	35	31	29	28	34	45	36	28	23	20	56	65	60	53	43	37
11:00	37	48	37	31	29	28	42	51	46	38	32	29					51	46
12:00	37	49	38	30	27	25	51	62	50	43	37	31	59	68	63	56	50	46
13:00	35	48	36	27	25	23	48	57	51	43	37	31	61	70	64	57	50	45
14:00	54	66	46	29	25	24	51	60	55	47	39	35	59	68	63	56	49	45
15:00	37	50	39	23	20	18	54	63	57	51	45	38	58	67	61	54	49	45
16:00	33	46	34	21	19	18	49	59	53	46	39	35	58	68	62	54	46	42
17:00	35	46	38	24	22	20	45	58	47	36	29	26	56	67	60	51	42	36
18:00	32	44	34	25	23	22	39	53	38	28	23	21	46	54	47	34	24	22
19:00	37	51	35	28	26	25	36	48	37	26	23	22	28	34	30	27	24	22
20:00	33	44	34	29	27	26	35	46	32	26	24	22	28	35	30	27	25	24
21:00	33	43	35	29	27	26	31	40	35	28	25	23	30	40	32	28	26	24
22:00	29	36	31	28	26	25	32	41	35	30	27	25	32	41	33	29	26	25
23:00	29	35	31	29	27	26	34	43	36	31	28	27	30	39	32	28	24	23
LD, dB(A)	43						47						55					
LN, dB(A)	36						35						33					
DNL, dB(A)	44						46						54					
Lmean, dB(A)	41						45						53					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

06-Mar-2009 Through 08-Mar-2009

Hour	Friday						Saturday						Sunday					
	Mar-06-2009						Mar-07-2009						Mar-08-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	32	41	35	29	26	25	53	64	53	42	38	37	41	51	42	39	38	37
01:00	39	48	43	35	27	26	47	52	42	39	37	37	42	53	43	39	38	37
02:00	40	49	44	37	30	29	41	50	41	39	38	38	39	44	41	38	38	37
03:00	30	35	32	29	27	25	44	53	47	41	38	37	44	56	44	38	38	37
04:00	31	40	34	28	26	24	38	39	38	38	37	37	39	41	39	39	38	37
05:00	31	40	33	29	27	26	38	39	38	38	37	37	39	41	39	38	38	38
06:00	33	43	36	30	29	28	39	44	39	38	38	37	39	41	39	39	38	37
07:00	35	46	37	31	29	29	49	58	58	38	38	37	49	58	57	40	38	38
08:00	36	47	37	32	29	28	52	59	58	40	38	38	54	60	58	50	38	37
09:00	38	49	40	33	30	28	46	57	47	41	39	38	46	58	47	39	29	24
10:00	36	47	38	31	29	28	51	62	52	43	37	30	55	64	57	51	37	30
11:00	36	47	37	32	29	27	61	70	62	54	46	41	56	65	54	40	28	24
12:00	40	53	41	28	24	23	62	73	65	58	51	46	53	62	54	40	31	26
13:00	43	56	38	29	25	23	62	71	65	59	57	55	57	69	56	45	35	25
14:00	42	55	43	33	26	23	62	73	66	59	53	48						
15:00	39	51	42	31	25	22	63	75	65	57	51	46						
16:00	37	48	40	26	23	21	64	75	66	58	52	47	61	73	62	51	43	39
17:00	52	64	44	29	23	21	60	73	62	52	46	41	70	81	70	54	44	39
18:00	47	58	46	34	27	25	61	72	63	53	46	42	58	70	59	48	42	36
19:00	55	65	56	52	38	33	61	73	60	48	42	39	59	71	61	48	38	33
20:00	52	65	52	44	41	40	49	60	50	42	39	38	43	56	46	36	26	24
21:00	54	64	58	46	39	38	47	57	50	43	39	38	47	57	46	38	37	36
22:00	51	61	54	44	39	37	43	51	46	41	38	37	38	41	39	38	38	37
23:00	54	58	57	47	38	30	47	58	49	39	38	37	39	41	39	39	38	37
LD, dB(A)	48						60						60					
LN, dB(A)	46						46						40					
DNL, dB(A)	53						59						59					
Lmean, dB(A)	47						58						58					
Hours (Day)	15						15						13					
Hours (Night)	9						9						9					
Hours (Total)	24						24						22					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

09-Mar-2009 Through 11-Mar-2009

Hour	Monday						Tuesday						Wednesday					
	Mar-09-2009						Mar-10-2009						Mar-11-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	38	39	38	38	37	37	37	46	40	34	30	28	32	37	33	31	30	29
01:00	38	41	39	38	37	37	40	47	43	38	35	33	31	34	32	31	29	29
02:00	39	44	40	39	38	37	37	44	40	35	31	29	30	33	31	29	28	27
03:00	39	46	39	38	37	37	39	48	43	37	32	29	30	33	31	29	28	27
04:00	38	40	39	38	37	37	45	54	48	42	37	34	34	43	38	31	29	28
05:00	38	39	39	38	38	37	42	51	46	39	33	30	35	40	37	33	32	31
06:00	40	48	42	39	38	37	38	49	40	33	30	28	35	43	37	32	31	30
07:00	40	48	42	39	38	37	39	50	43	36	32	30	36	47	39	32	30	28
08:00	49	63	48	39	38	37	40	51	43	36	33	31	37	50	39	31	29	28
09:00	41	49	45	39	31	29	47	57	51	43	34	31	38	48	38	31	29	28
10:00	50	63	51	45	37	33	56	66	60	53	46	43	40	53	42	32	29	28
11:00	51	61	56	46	41	37	62	70	65	59	52	48	51	59	43	32	28	27
12:00	55	63	58	52	47	43	63	72	67	59	52	49					29	28
13:00	58	67	61	55	49	45	55	65	59	52	46	42	41	52	40	31	28	27
14:00	59	67	63	56	51	46	51	60	54	46	39	36	38	50	39	31	27	25
15:00	61	69	64	59	53	48	57	66	61	54	48	44	39	51	41	33	27	26
16:00	60	69	63	57	51	49	49	58	53	47	42	37	39	51	43	33	27	24
17:00	57	66	60	53	48	43	47	56	51	45	39	37	37	48	39	33	28	25
18:00	52	61	56	48	42	38	46	55	49	43	39	36	36	44	38	33	29	26
19:00	52	60	55	50	43	39	42	51	46	39	33	31	32	43	33	28	25	24
20:00	47	56	51	43	38	35	36	44	39	34	31	29	33	44	31	27	25	23
21:00	44	53	47	40	36	33	33	41	35	31	29	28	29	36	31	28	26	25
22:00	42	50	45	40	35	32	33	40	35	32	30	28	30	37	33	29	27	26
23:00	33	41	35	31	28	27	32	38	34	32	30	29	30	35	32	29	27	25
LD, dB(A)	55						55						42					
LN, dB(A)	39						40						32					
DNL, dB(A)	54						54						42					
Lmean, dB(A)	53						53						40					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

12-Mar-2009 Through 14-Mar-2009

Hour	Thursday						Friday						Saturday					
	Mar-12-2009						Mar-13-2009						Mar-14-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	29	34	31	28	26	25	28	34	30	27	25	23	31	38	33	30	27	26
01:00	31	35	33	30	28	27	29	37	29	25	23	22	32	41	33	31	29	27
02:00	29	35	32	29	26	25	24	30	26	23	21	20	29	40	31	27	25	23
03:00	28	32	29	27	26	25	22	29	24	21	19	18	30	35	32	29	27	25
04:00	28	32	29	28	26	25	18	23	19	18	17	17	30	36	32	29	26	25
05:00	28	33	30	28	26	25	25	36	19	18	17	17	32	45	33	26	22	21
06:00	33	44	35	29	26	25	28	42	26	20	19	18	27	36	27	25	23	22
07:00	36	47	40	30	28	27	33	46	33	23	20	18	33	44	33	27	24	22
08:00	41	53	44	30	26	25	39	52	39	25	21	19	34	42	38	29	24	22
09:00	38	51	40	28	26	25	36	51	35	25	21	20	34	47	35	27	25	23
10:00	41	53	44	31	25	24	32	42	34	28	23	21	33	45	36	24	20	19
11:00	39	53	41	29	25	24	43	55	39	29	24	21	33	39	30	24	21	20
12:00	40	52	42	31	26	24	34	43	37	30	25	23	35	48	34	27	21	20
13:00	40	53	41	32	27	25	35	45	37	31	26	24	31	44	32	25	21	20
14:00	39	52	42	29	26	25	37	47	40	34	29	25	32	44	34	26	22	20
15:00	41	54	44	32	27	25	39	50	40	33	28	25	55	65	43	29	23	21
16:00	45	52	43	32	27	24	35	46	38	31	27	24	60	73	59	43	27	23
17:00	51	57	40	30	25	24	34	43	36	30	27	25	57	69	54	38	28	23
18:00	36	47	39	32	28	26	33	41	35	32	29	28	64	77	65	39	27	24
19:00	37	45	40	36	33	31	35	45	37	32	30	28	62	71	68	36	28	24
20:00	38	50	39	33	30	29	35	46	36	32	30	29	53	57	57	39	30	27
21:00	34	44	36	32	31	30	33	43	35	30	29	27	57	58	57	57	56	56
22:00	34	44	36	31	29	27	35	42	37	34	31	30	57	58	57	57	57	56
23:00	31	39	33	29	26	25	32	38	34	32	30	29	61	68	61	57	57	56
LD, dB(A)	42						37						56					
LN, dB(A)	31						29						53					
DNL, dB(A)	42						38						60					
Lmean, dB(A)	40						35						55					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

15-Mar-2009 Through 17-Mar-2009

Hour	Sunday						Monday						Tuesday					
	Mar-15-2009						Mar-16-2009						Mar-17-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	69	81	65	58	57	57	57	58	58	57	57	56	36	44	35	31	29	27
01:00	62	75	58	57	56	56	57	58	58	57	57	56	33	41	36	31	29	28
02:00	57	58	58	57	57	56	57	58	58	57	57	57	33	42	35	31	29	28
03:00	57	58	58	57	57	56	58	58	58	57	57	57	33	37	34	32	31	30
04:00	57	58	57	57	56	56	57	58	58	57	57	57	32	36	33	32	30	29
05:00	57	58	57	57	57	56	57	58	58	57	57	56	32	36	34	32	30	29
06:00	57	58	57	57	57	56	57	58	58	57	57	57	38	49	40	34	32	31
07:00	57	58	57	57	56	56	57	59	58	57	57	57	42	52	45	37	32	31
08:00	57	57	57	56	56	56	58	61	58	57	57	56	43	55	46	36	33	31
09:00	56	58	57	56	55	55	57	60	58	57	56	37	42	54	44	35	32	31
10:00	55	58	57	56	37	31	57	63	58	57	55	34	40	52	43	33	29	27
11:00				57	55	54	58	65	58	56	55	55	39	51	41	31	28	25
12:00	57	59	58	57	56	55	57	67	58	56	55	54	52	63	53	34	26	23
13:00	63	76	60	57	56	55	58	68	58	56	55	54	41	52	43	32	25	22
14:00	71	85	70	59	57	55	51	65	49	30	21	19	47	58	48	36	28	24
15:00	68	80	68	59	57	55	44	56	45	32	23	20	49	61	50	40	30	25
16:00	62	72	63	58	56	55	49	62	43	31	25	21	47	58	48	37	30	25
17:00	67	74	64	58	56	56	46	59	44	33	24	21	56	65	53	39	30	24
18:00	65	77	66	59	56	55	49	63	46	29	23	21	63	78	60	46	34	26
19:00	63	74	64	58	56	56	54	65	44	30	24	21	64	78	62	41	32	27
20:00	61	69	62	60	58	57	54	66	48	30	22	20	64	77	61	42	30	26
21:00	61	62	58	57	57	56	47	55	33	28	24	22	36	49	36	30	26	25
22:00	57	58	57	57	56	56	30	38	32	28	26	25	32	41	33	30	28	26
23:00	57	58	58	57	57	56	32	36	34	31	28	27	31	38	32	30	27	26
LD, dB(A)	64						55						57					
LN, dB(A)	62						56						34					
DNL, dB(A)	68						62						55					
Lmean, dB(A)	63						56						55					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR001

18-Mar-2009 Through 19-Mar-2009

Hour	Wednesday Mar-18-2009						Thursday Mar-19-2009											
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin						
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)						
00:00	32	43	34	30	28	27	33	38	35	33	31	29						
01:00	32	36	34	31	29	28	32	38	35	32	30	28						
02:00	32	38	33	32	29	28	32	37	34	31	30	29						
03:00	33	38	35	32	30	28	33	38	35	32	30	29						
04:00	33	38	35	33	31	30	34	41	34	32	30	29						
05:00	33	39	34	32	30	29	33	39	35	31	29	28						
06:00	36	46	38	34	32	31	34	42	36	32	29	28						
07:00	38	47	41	36	33	32	35	46	38	31	29	27						
08:00	41	52	43	36	32	30	40	51	42	33	29	27						
09:00	50	62	50	37	31	30	47	59	44	31	27	26						
10:00	43	53	44	38	32	31				30	27	26						
11:00	58	64	50	41	36	34												
12:00	49	59	52	43	38	36												
13:00	50	60	53	45	40	37												
14:00	51	64	51	44	38	33												
15:00	55	68	53	47	40	36												
16:00	50	61	52	44	38	34												
17:00	55	68	56	48	41	35												
18:00	50	61	52	44	38	35												
19:00	56	60	49	39	31	29												
20:00	49	62	41	31	27	24												
21:00	48	61	39	31	28	27												
22:00	31	37	33	30	29	27												
23:00	34	43	35	32	29	27												
LD, dB(A)	52						43											
LN, dB(A)	33						33											
DNL, dB(A)	50																	
Lmean, dB(A)	50						39											
Hours (Day)	15						3											
Hours (Night)	9						7											
Hours (Total)	24						10											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

16-Feb-2009 Through 18-Feb-2009

Hour	Monday						Tuesday						Wednesday					
	Feb-16-2009						Feb-17-2009						Feb-18-2009					
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)
00:00							31	36	33	31	29	28	27	31	28	26	25	24
01:00							31	36	33	31	29	28	33	40	34	29	27	26
02:00							33	39	35	32	30	29	27	32	28	26	25	23
03:00							32	37	33	31	29	28	27	31	29	27	25	24
04:00							32	37	34	32	30	29	28	32	29	27	26	25
05:00							40	44	36	33	31	29	32	37	31	28	26	25
06:00							45	57	46	33	30	29	45	58	44	29	26	25
07:00							46	58	45	34	30	29	45	58	44	30	27	26
08:00							48	61	49	37	32	29	45	58	40	29	26	25
09:00							49	61	50	42	36	34	45	58	36	26	21	20
10:00							52	63	54	48	44	41	44	57	34	24	20	19
11:00							53	65	56	49	44	40	44	57	41	28	21	19
12:00							56	67	59	52	47	44	47	59	41	28	22	20
13:00							54	64	56	50	45	42	42	55	42	31	25	22
14:00							53	62	56	49	43	40	41	55	38	28	22	20
15:00							53	62	57	50	46	43	44	56	43	30	22	20
16:00							56	66	60	53	47	43	45	58	45	28	21	19
17:00					34	31	58	67	61	55	50	48	44	58	43	31	25	22
18:00	45	57	42	33	27	26	50	59	53	47	39	35	42	56	37	29	25	23
19:00	41	55	38	30	28	27	40	49	42	36	31	29	44	58	40	32	27	24
20:00	39	53	36	30	28	28	39	48	42	36	33	31	35	46	36	32	28	26
21:00	38	51	33	30	29	28	41	53	43	36	30	28	33	40	35	31	28	27
22:00	37	45	32	30	29	28	33	43	36	28	25	24	33	41	35	31	28	27
23:00	31	36	33	31	29	28	27	31	28	26	25	24	31	39	34	30	27	26
LD, dB(A)	42						53						43					
LN, dB(A)	35						37						36					
DNL, dB(A)							51						45					
Lmean, dB(A)	40						51						42					
Hours (Day)	4						15						15					
Hours (Night)	2						9						9					
Hours (Total)	6						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

19-Feb-2009 Through 21-Feb-2009

Hour	Thursday Feb-19-2009						Friday Feb-20-2009						Saturday Feb-21-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	33	41	34	29	27	26	39	49	33	31	29	29	56	66	59	51	45	42
01:00	32	39	34	30	28	27	33	40	35	31	29	28	45	56	47	42	39	37
02:00	33	40	32	29	27	26	32	38	34	31	29	28	44	53	46	41	35	32
03:00	32	37	34	31	28	26	33	41	34	31	30	28	34	42	35	32	30	29
04:00	32	39	33	31	29	28	31	36	32	30	29	28	32	38	34	31	30	29
05:00	33	39	33	31	29	28	34	42	34	31	30	29	41	50	37	35	34	31
06:00	40	54	37	33	31	30	43	56	43	32	30	30	36	44	33	30	28	27
07:00	44	57	41	34	32	31	45	58	47	33	31	30	38	46	37	34	29	28
08:00	46	58	42	35	32	30	47	61	43	33	31	29	42	56	36	29	27	26
09:00	46	60	45	34	31	29	42	56	41	29	26	25	45	58	41	31	27	26
10:00	46	59	39	29	23	21	47	62	41	26	22	20	46	60	44	32	26	24
11:00	44	57	38	26	22	20	43	56	39	25	21	19	45	58	43	31	25	23
12:00	46	58	42	30	23	20	40	55	39	26	20	18	64	76	55	32	25	23
13:00	45	58	44	34	27	25	43	56	43	27	20	19	52	63	51	31	23	21
14:00	44	59	43	32	25	22	56	69	59	39	25	21	70	82	66	38	26	23
15:00	47	61	47	31	24	20	53	67	54	38	32	20	64	76	62	45	28	23
16:00	47	59	46	28	22	20	53	66	53	39	24	18	70	84	70	49	35	29
17:00	45	58	45	28	20	19	50	62	47	26	18	17	66	75	57	37	27	23
18:00					21	17	50	60	47	36	19	17	51	62	52	37	27	23
19:00	39	53	36	25	21	20	45	57	46	33	22	21	44	56	46	26	22	21
20:00	37	51	34	29	27	25	45	58	47	30	25	23	45	58	45	24	22	20
21:00	39	47	34	29	27	26	43	55	42	34	29	27	43	56	38	26	23	22
22:00	60	60	35	30	28	28	43	55	45	35	33	32	42	56	41	28	26	25
23:00	40	53	38	31	29	28	61	71	64	55	45	38	41	54	36	28	26	25
LD, dB(A)	45						49						63					
LN, dB(A)	51						51						47					
DNL, dB(A)	57						58						62					
Lmean, dB(A)	48						50						61					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

22-Feb-2009 Through 24-Feb-2009

Hour	Sunday						Monday						Tuesday					
	Feb-22-2009						Feb-23-2009						Feb-24-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	39	54	36	30	28	27	27	30	29	27	25	25	29	37	30	27	26	24
01:00	39	53	34	29	27	26	27	30	29	27	26	25	28	33	30	28	26	25
02:00	36	50	30	27	26	25	26	30	28	26	25	24	31	38	32	29	27	25
03:00	36	50	31	29	28	27	27	29	28	27	25	24	31	37	33	30	28	26
04:00	37	48	31	29	28	27	27	30	28	27	24	23	30	40	31	28	26	25
05:00	38	51	32	29	28	27	39	41	29	26	24	23	38	49	32	30	27	25
06:00	39	49	31	29	27	26	42	56	38	28	26	25	45	58	43	29	27	26
07:00	42	51	31	29	28	27	45	59	42	32	30	28	48	61	47	33	28	25
08:00	41	56	38	29	27	26	44	57	39	33	29	28	50	64	43	31	26	25
09:00	39	52	40	29	26	25	49	61	41	30	28	27	47	61	42	30	25	24
10:00	49	62	46	30	27	25	48	63	38	30	28	26	48	63	40	29	25	23
11:00	51	63	51	35	27	24	41	56	37	28	26	24	48	63	39	29	24	22
12:00	58	70	61	46	37	32	45	59	36	27	25	24	41	54	36	28	22	20
13:00	64	73	64	53	44	35	46	60	44	29	26	25	45	57	36	25	21	20
14:00	65	76	65	54	44	38	43	57	35	28	25	24	45	60	36	24	20	19
15:00	61	71	63	54	45	41	45	59	37	29	27	26	44	56	39	24	20	19
16:00	62	73	64	50	37	33	50	61	45	32	29	27	44	57	39	23	20	19
17:00	56	66	52	39	32	27			28	25	24	24	43	56	42	25	21	20
18:00	61	75	57	35	25	23			27	25	24	24	41	55	36	27	23	22
19:00	49	59	42	36	24	23	33	42	31	28	26	25	39	46	32	27	25	24
20:00	36	50	34	27	24	23	29	39	31	27	26	25	28	34	30	27	25	24
21:00	29	39	29	25	23	23	45	55	35	27	26	25	46	58	47	28	25	24
22:00	26	35	27	25	24	23	29	38	27	26	25	24	31	43	28	26	25	24
23:00	27	29	28	26	25	24	28	37	29	27	25	24	26	30	27	26	25	25
LD, dB(A)	59						46						46					
LN, dB(A)	37						35						37					
DNL, dB(A)	57						45						46					
Lmean, dB(A)	57						44						44					
Hours (Day)	15						13						15					
Hours (Night)	9						9						9					
Hours (Total)	24						22						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

25-Feb-2009 Through 27-Feb-2009

Hour	Wednesday						Thursday						Friday					
	Feb-25-2009						Feb-26-2009						Feb-27-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	28	31	30	28	26	25	35	45	30	27	26	25	25	29	27	25	23	22
01:00	28	31	30	28	27	26	28	35	30	27	26	25	26	29	27	26	25	24
02:00	28	31	29	27	26	25	27	31	29	27	26	25	29	39	29	27	26	25
03:00	31	36	33	30	28	27	30	35	32	29	27	25	29	34	31	28	27	26
04:00	33	39	36	33	30	28	29	35	31	28	26	25	36	49	32	30	28	27
05:00	38	44	40	36	34	32	31	36	31	27	24	23	31	35	33	31	30	29
06:00	44	57	45	36	33	31	44	57	44	30	25	24	41	54	38	32	31	29
07:00	46	59	46	35	32	31	47	60	47	33	28	27	46	59	43	33	31	30
08:00	46	59	45	33	29	28	46	58	44	35	28	25	47	61	41	32	30	29
09:00	46	60	42	32	27	25	44	57	39	29	25	23	42	54	34	31	30	29
10:00	48	62	44	30	25	23	45	58	44	34	26	24	47	60	42	31	29	28
11:00	41	56	38	29	23	21	46	57	38	29	24	21	40	54	35	29	28	27
12:00	46	58	40	28	23	21	43	55	37	28	23	21	43	57	39	31	27	27
13:00	41	56	35	26	22	21	44	56	37	26	21	20	43	58	39	28	24	23
14:00	66	70	51	28	22	20	40	54	36	27	21	20	44	57	36	25	23	22
15:00	48	60	47	26	20	19					26	22	43	57	39	26	24	23
16:00	46	59	45	25	19	18	48	60	50	31	24	23	45	58	39	28	24	23
17:00	43	55	36	22	20	19	57	70	52	28	22	21	38	47	38	32	28	26
18:00	42	55	33	21	20	19	50	62	38	26	22	21	45	56	47	40	35	33
19:00	42	44	28	23	22	21	35	48	33	26	24	23	49	57	52	46	43	38
20:00	24	31	26	24	21	21	36	49	34	24	22	21	52	61	54	52	41	35
21:00	42	55	36	26	24	23	36	51	32	24	22	21	53	54	53	53	52	51
22:00	36	46	30	25	24	23	41	53	37	25	22	20	53	54	53	52	52	52
23:00	26	30	28	26	25	24	36	46	32	24	22	21	51	54	52	51	50	50
LD, dB(A)	54						48						47					
LN, dB(A)	37						37						46					
DNL, dB(A)	53						48						52					
Lmean, dB(A)	52						46						47					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

28-Feb-2009 Through 02-Mar-2009

Hour	Saturday						Sunday						Monday					
	Feb-28-2009						Mar-01-2009						Mar-02-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	51	52	51	51	51	50	56	57	57	56	56	56	32	42	28	26	25	24
01:00	51	51	51	51	50	50	57	58	57	57	56	56	32	41	27	26	24	24
02:00	51	51	51	51	50	50	57	57	57	57	56	56	26	30	28	26	25	24
03:00	51	52	51	51	50	50	57	57	57	57	56	56	27	34	29	26	25	24
04:00	51	52	51	51	50	50	57	57	57	57	56	56	27	32	29	27	25	23
05:00	51	52	51	51	50	50	57	58	57	57	56	56	32	38	28	25	24	23
06:00	51	52	51	51	50	50	57	58	57	57	56	56	40	54	42	27	25	24
07:00	51	53	51	51	50	50	57	58	57	57	56	55	45	58	45	28	25	23
08:00	53	58	53	53	52	51	57	58	57	56	56	55	45	58	44	28	25	24
09:00	53	59	54	53	52	52	57	59	57	56	56	55					25	24
10:00	54	61	55	53	52	52	55	58	57	56	24	23	45	57	40	26	23	22
11:00	51	58	54	45	36	32	41	53	45	27	23	21	46	57	39	26	22	21
12:00	50	59	53	45	39	34	50	63	45	34	25	22	46	59	40	27	23	21
13:00	69	80	60	48	41	37	64	69	55	39	26	21	43	55	38	25	21	19
14:00	73	85	70	55	45	41	63	76	62	47	34	27	44	59	36	21	19	18
15:00	74	85	70	60	58	50	65	75	59	44	32	27	43	57	36	22	19	18
16:00	66	79	65	60	58	56	72	83	64	48	36	28	42	56	31	20	18	18
17:00	72	84	68	59	55	43	63	74	67	47	35	29	55	62	59	33	22	18
18:00	63	74	63	57	54	52	65	71	49	33	23	22	48	61	46	29	24	23
19:00	57	59	59	56	54	54	32	42	35	27	23	23	37	50	35	29	26	24
20:00	55	59	56	54	54	53	35	45	34	29	27	26	34	41	34	28	26	26
21:00	57	61	57	57	56	54	36	50	35	29	27	26	38	50	35	29	26	25
22:00	56	58	57	56	56	55	32	36	30	28	26	26	34	45	36	28	27	26
23:00	56	57	57	56	56	56	35	48	30	27	25	24	33	42	35	30	28	27
LD, dB(A)	67						63						47					
LN, dB(A)	53						55						34					
DNL, dB(A)	66						64						46					
Lmean, dB(A)	65						61						45					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

03-Mar-2009 Through 05-Mar-2009

Hour	Tuesday						Wednesday						Thursday					
	Mar-03-2009						Mar-04-2009						Mar-05-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	29	33	30	28	28	27	28	31	29	28	27	26	29	33	31	29	26	25
01:00	30	36	31	29	28	27	30	34	31	29	27	26	28	33	30	28	26	25
02:00	30	33	31	29	28	27	30	33	31	29	28	27	31	36	33	30	28	27
03:00	29	31	30	29	28	27	40	41	34	32	29	27	28	34	30	27	26	25
04:00	30	33	31	30	29	28	40	41	32	28	26	25	34	40	30	28	26	25
05:00	40	49	32	30	29	28	33	41	34	31	28	26	42	52	32	28	26	24
06:00	42	55	41	30	29	28	44	57	45	30	28	27	47	60	46	29	26	24
07:00	45	58	42	33	30	29	46	58	48	31	27	26	48	62	49	30	26	25
08:00	44	57	38	31	29	28	46	61	42	30	28	27	46	60	48	30	26	25
09:00	44	58	39	32	29	28	47	58	43	29	26	24	49	64	45	33	26	25
10:00	45	57	35	30	28	27	46	60	40	27	21	20	51	62	54	46	39	36
11:00	44	57	35	30	28	27	48	62	44	32	25	20					45	41
12:00	45	57	38	28	25	24	49	62	46	36	31	27	53	63	56	49	44	42
13:00	45	56	37	26	23	22	54	65	49	38	31	25	51	60	54	48	43	40
14:00	46	58	37	26	23	21	51	63	51	39	33	28	52	62	55	48	43	39
15:00	46	59	38	23	19	18	51	64	51	42	36	29	52	63	54	46	40	36
16:00	41	56	30	21	18	18	46	59	46	37	32	27	51	61	54	46	38	32
17:00	42	55	38	22	20	19	56	68	58	33	25	23	56	69	57	47	39	32
18:00	35	48	32	24	22	21	64	76	68	50	22	20	61	73	63	37	26	22
19:00	40	50	37	27	24	23	44	57	38	25	22	20	39	51	29	24	22	21
20:00	35	49	32	27	26	24	43	53	36	25	23	22	30	38	28	24	23	22
21:00	38	50	34	27	25	24	44	57	41	29	24	23	34	48	29	25	23	22
22:00	28	34	29	27	25	24	42	54	36	29	26	25	31	38	30	26	24	22
23:00	27	30	28	27	26	25	36	48	31	28	26	25	36	49	33	28	24	23
LD, dB(A)	43						54						53					
LN, dB(A)	35						39						39					
DNL, dB(A)	44						53						52					
Lmean, dB(A)	42						52						51					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

06-Mar-2009 Through 08-Mar-2009

Hour	Friday						Saturday						Sunday					
	Mar-06-2009						Mar-07-2009						Mar-08-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	34	45	29	26	25	23	44	57	45	35	27	23	45	55	37	30	27	27
01:00	30	36	32	29	26	25	48	57	40	27	24	23	45	58	40	32	27	26
02:00	33	39	35	32	29	27	40	51	42	26	24	23	32	40	35	30	27	26
03:00	30	35	30	28	25	24	32	39	35	30	25	23	48	64	34	29	26	23
04:00	29	38	31	27	24	23	25	30	26	24	23	22	33	38	32	28	26	25
05:00	30	40	30	28	26	25	25	31	27	24	22	21	32	39	34	31	28	25
06:00	39	53	35	30	28	27	37	40	30	26	24	23	39	49	34	31	29	27
07:00	40	55	35	30	28	27	41	54	35	27	25	23	41	50	35	33	30	29
08:00	42	55	36	31	28	27	42	57	36	29	26	25	48	62	44	32	28	26
09:00	47	60	39	32	29	28	72	82	71	58	44	30	65	74	60	40	27	24
10:00	44	57	38	29	27	25	68	79	67	56	36	28	69	81	66	50	30	26
11:00	44	57	35	29	26	25	70	83	71	58	48	43	68	75	63	45	29	23
12:00	45	56	45	27	24	22	68	80	71	58	50	46	70	83	67	52	39	29
13:00	43	56	44	32	23	21	72	82	72	61	51	46	66	78	63	47	35	28
14:00	44	56	44	31	23	20	73	86	75	61	50	44					38	30
15:00	49	61	50	33	24	21	71	82	67	56	50	46					42	33
16:00	47	59	48	29	21	20	69	80	66	55	48	44	67	79	68	53	43	38
17:00	54	66	53	38	27	24	70	82	70	58	47	43	72	83	67	50	40	35
18:00	69	81	71	54	38	32	70	81	67	53	41	34	66	78	65	51	42	37
19:00	70	82	70	50	33	30	64	75	61	45	35	31	70	81	64	47	36	29
20:00	59	71	60	42	30	26	62	75	53	38	31	28	56	69	52	36	23	21
21:00	60	69	57	37	29	27	50	62	51	40	30	28	33	44	28	24	23	22
22:00	55	65	55	40	30	26	46	58	46	34	31	30	30	35	27	25	24	23
23:00	56	66	43	30	27	25	44	56	41	33	28	27	26	30	27	26	25	24
LD, dB(A)	61						69						67					
LN, dB(A)	49						43						42					
DNL, dB(A)	61						67						65					
Lmean, dB(A)	59						67						65					
Hours (Day)	15						15						13					
Hours (Night)	9						9						9					
Hours (Total)	24						24						22					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

09-Mar-2009 Through 11-Mar-2009

Hour	Monday						Tuesday						Wednesday					
	Mar-09-2009						Mar-10-2009						Mar-11-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	26	30	27	26	24	24	29	34	31	28	27	25	30	34	31	29	28	27
01:00	27	33	29	26	25	24	31	36	33	30	28	27	31	35	33	30	29	28
02:00	29	36	30	28	26	25	29	34	31	28	26	25	31	37	33	30	28	27
03:00	41	45	31	28	26	24	30	36	32	28	26	26	30	35	32	29	28	27
04:00	28	33	30	27	26	25	32	39	34	32	29	28	30	35	32	30	28	27
05:00	28	32	30	28	26	25	31	38	34	30	28	26	31	36	33	31	29	28
06:00	43	55	45	28	26	25	43	56	44	29	27	26	43	57	41	31	29	28
07:00	45	58	45	28	26	24	43	56	44	33	30	28	44	58	41	30	27	26
08:00	49	62	52	33	28	26	45	58	43	35	31	29	49	64	41	32	28	26
09:00	46	58	49	32	27	25	46	60	45	36	30	28	43	57	38	30	28	27
10:00	47	59	47	38	32	28	49	61	51	45	40	36	48	63	39	30	27	26
11:00	48	60	49	40	34	31	54	65	57	51	45	43				35	28	26
12:00	49	60	50	43	39	37	55	65	59	52	48	45	47	62	43	33	28	26
13:00	52	64	53	46	41	39	52	62	55	48	43	41	47	62	42	33	28	26
14:00	52	63	56	48	43	39	51	63	52	44	37	34	47	61	42	33	27	24
15:00	53	64	55	48	45	42	55	65	58	51	44	40	48	62	46	35	27	24
16:00	52	62	55	49	45	42	48	59	51	43	37	33	47	60	48	38	29	25
17:00	49	60	51	45	40	37	47	57	46	40	36	33	45	56	46	38	29	25
18:00	45	55	46	41	36	33	45	55	45	39	36	34	42	51	45	38	31	26
19:00	41	49	44	39	35	33	39	47	40	35	32	30	38	50	38	31	25	24
20:00	40	49	42	36	33	31	35	42	36	31	29	27	38	46	31	27	24	23
21:00	38	45	37	33	30	29	32	40	33	30	28	27	29	35	31	28	25	24
22:00	31	37	33	29	27	26	33	37	32	30	28	27	29	36	31	28	26	24
23:00	28	35	30	27	25	24	31	35	33	30	28	27	33	41	36	30	26	24
LD, dB(A)	49						50						46					
LN, dB(A)	36						35						35					
DNL, dB(A)	48						49						46					
Lmean, dB(A)	47						48						44					
Hours (Day)	15						15						14					
Hours (Night)	9						9						9					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

12-Mar-2009 Through 14-Mar-2009

Hour	Thursday						Friday						Saturday					
	Mar-12-2009						Mar-13-2009						Mar-14-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	28	35	31	27	25	24	33	43	36	29	24	21	31	38	34	30	27	26
01:00	28	32	29	27	26	25	33	39	33	26	22	19	34	43	35	31	29	27
02:00	27	31	28	26	24	23	24	32	27	21	19	18	33	39	33	30	27	25
03:00	26	30	27	25	24	23	20	28	21	18	18	17	32	38	34	30	27	25
04:00	27	31	28	26	25	24	17	21	18	17	17	16	31	37	34	29	26	25
05:00	26	31	28	26	25	23	34	35	18	17	17	17	32	46	33	26	23	22
06:00	39	53	33	27	25	24	36	52	24	19	18	17	31	36	29	24	23	22
07:00	42	55	38	29	27	26	41	56	33	21	19	18	41	53	34	25	22	21
08:00	48	64	42	27	25	23	47	62	39	24	20	19	37	50	37	28	24	22
09:00	45	58	39	28	24	23	46	62	36	23	19	19	40	46	31	26	23	22
10:00	49	65	43	32	24	23	41	53	33	25	21	20	42	56	39	24	21	20
11:00	47	61	40	30	24	23	46	60	42	28	23	21	38	51	28	22	20	19
12:00	47	61	42	33	26	23	41	54	35	28	24	22	38	53	36	24	20	19
13:00	47	61	44	35	27	24	46	59	39	29	24	22	42	55	44	26	20	19
14:00	48	63	40	30	25	24	44	58	40	31	27	24	39	53	38	25	21	19
15:00	50	64	45	34	25	24	47	60	40	29	25	23	51	60	38	24	21	20
16:00	52	63	45	34	26	24	43	56	39	31	25	22	63	75	53	35	25	22
17:00	63	69	44	33	26	23	38	53	36	32	30	28	54	65	49	34	25	22
18:00	42	53	44	37	30	27	36	41	37	34	31	30	60	73	52	37	26	22
19:00	44	53	48	42	36	32	36	45	38	34	31	30	53	58	47	32	24	21
20:00	43	53	45	37	31	29	37	51	37	33	31	29	42	56	37	27	25	24
21:00	36	44	37	32	29	28	34	44	36	31	29	27	29	36	30	28	26	26
22:00	39	49	41	34	29	26	50	59	39	34	30	28	30	35	32	29	28	27
23:00	35	44	38	31	27	25	33	38	35	32	30	29						
LD, dB(A)	53						43						54					
LN, dB(A)	34						41						32					
DNL, dB(A)	51						47						52					
Lmean, dB(A)	51						42						52					
Hours (Day)	15						15						15					
Hours (Night)	9						9						8					
Hours (Total)	24						24						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

15-Mar-2009 Through 17-Mar-2009

Hour	Sunday						Monday						Tuesday					
	Mar-15-2009						Mar-16-2009						Mar-17-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00							30	33	32	30	28	27	43	56	45	28	26	25
01:00							29	31	30	29	28	27	30	38	31	28	27	26
02:00							30	36	32	30	28	28	29	34	31	29	27	26
03:00							31	37	32	30	29	28	30	33	31	29	28	27
04:00							32	36	33	31	30	29	29	32	30	29	27	27
05:00							34	40	35	33	31	30	33	43	32	29	28	27
06:00							43	56	42	33	31	30	43	55	43	31	29	28
07:00							44	56	45	37	33	31	47	59	49	35	31	30
08:00							51	65	50	40	38	35	50	65	48	34	31	30
09:00							49	63	48	38	32	29	49	63	47	33	31	30
10:00	47	59	47	37	30	28	49	65	43	31	28	25	50	64	45	34	29	26
11:00			69	55	39	29	52	64	44	28	23	21	51	65	51	36	28	26
12:00	70	82	65	42	31	27	54	67	53	30	22	20	51	65	50	39	31	27
13:00	66	79	64	44	34	27	53	65	44	31	23	20	52	65	53	39	31	26
14:00	69	83	69	51	39	33	52	65	48	27	20	18	62	73	64	52	43	36
15:00	72	83	68	54	43	38	58	70	53	35	25	22	59	68	62	49	39	33
16:00	70	81	67	50	39	35	63	74	64	54	40	23	61	71	61	53	45	35
17:00	74	85	68	51	36	30	66	77	64	52	41	30	58	70	59	49	42	37
18:00	70	83	70	55	44	37	70	83	66	51	34	25	68	78	66	52	41	33
19:00	70	81	69	57	45	30	67	80	65	53	40	33	73	84	73	64	55	48
20:00	69	79	67	53	29	26	64	77	63	48	22	22	63	75	67	51	26	24
21:00	41	54	41	31	29	28	48	60	46	41	26	23	30	43	31	26	25	24
22:00	38	51	37	28	27	26	44	53	50	39	26	24	33	44	31	28	26	25
23:00	29	34	30	28	27	26	27	31	28	27	26	25	29	32	30	28	27	26
LD, dB(A)	70						62						63					
LN, dB(A)	35						38						37					
DNL, dB(A)							60						61					
Lmean, dB(A)	69						60						61					
Hours (Day)	11						15						15					
Hours (Night)	2						9						9					
Hours (Total)	13						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR002

18-Mar-2009 Through 19-Mar-2009

Hour	Wednesday Mar-18-2009						Thursday Mar-19-2009											
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin						
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)						
00:00	29	33	31	29	27	26	31	36	33	30	28	27						
01:00	30	34	32	29	28	27	31	38	34	30	28	27						
02:00	32	38	33	31	29	28	31	36	33	30	28	27						
03:00	30	33	31	30	28	27	32	38	34	31	29	28						
04:00	30	33	31	29	28	27	41	42	33	30	28	27						
05:00	35	42	33	31	29	29	38	46	34	30	28	27						
06:00	44	57	43	33	30	28	43	57	38	31	29	28						
07:00	48	59	47	37	32	30	46	59	43	31	28	27						
08:00	48	61	49	37	32	30	51	65	49	32	28	26						
09:00	53	66	50	38	30	29			48	31	26	25						
10:00	55	66	51	41	35	31												
11:00	59	67	51	43	38	35												
12:00	54	66	52	43	37	35												
13:00	59	71	60	47	40	36												
14:00	54	67	53	42	36	32												
15:00	68	71	55	42	36	33												
16:00	58	69	54	41	36	33												
17:00	63	76	59	42	36	32												
18:00	60	73	60	47	37	33												
19:00	61	66	45	32	28	25												
20:00	62	73	55	30	26	24												
21:00	63	68	44	30	27	25												
22:00	37	46	33	29	27	26												
23:00	35	45	33	30	28	26												
LD, dB(A)	61						49											
LN, dB(A)	36						38											
DNL, dB(A)	59																	
Lmean, dB(A)	59						43											
Hours (Day)	15						2											
Hours (Night)	9						7											
Hours (Total)	24						9											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

16-Feb-2009 Through 18-Feb-2009

Hour	Monday						Tuesday						Wednesday					
	Feb-16-2009						Feb-17-2009						Feb-18-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													28	35	30	26	24	22
01:00													26	32	29	25	23	22
02:00													26	32	28	25	23	22
03:00													28	37	31	27	24	22
04:00													27	32	29	27	24	23
05:00													29	35	30	28	26	23
06:00													29	32	31	29	28	27
07:00													31	37	32	30	28	27
08:00													37	50	35	30	28	27
09:00													39	51	37	33	30	28
10:00													35	43	37	33	29	26
11:00													47	59	44	35	31	26
12:00													42	54	41	31	23	20
13:00													42	55	41	30	22	20
14:00													38	50	40	32	22	19
15:00													41	53	43	31	23	20
16:00													47	55	43	32	25	22
17:00													44	47	37	29	21	18
18:00							47	55	51	44	39	37	33	41	32	22	19	18
19:00							39	46	42	38	35	33	26	37	29	21	18	17
20:00							34	42	35	32	30	29	38	50	35	23	20	19
21:00							37	44	40	35	32	30	23	35	23	20	19	18
22:00							33	40	36	31	27	26	48	58	41	24	21	19
23:00							29	35	31	28	25	23	24	34	23	21	19	19
LD, dB(A)							42						41					
LN, dB(A)							31						39					
DNL, dB(A)													46					
Lmean, dB(A)							40						41					
Hours (Day)	0						4						15					
Hours (Night)	0						2						9					
Hours (Total)	0						6						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

19-Feb-2009 Through 21-Feb-2009

Hour	Thursday Feb-19-2009						Friday Feb-20-2009						Saturday Feb-21-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	21	27	23	20	19	18	49	60	55	33	30	29	65	74	68	61	56	52
01:00	25	34	28	22	20	19	59	72	61	37	31	27	54	65	56	49	43	40
02:00	22	31	24	20	19	18	33	39	35	32	30	28	51	61	54	46	40	37
03:00	34	46	41	21	19	18	31	35	34	29	27	26	40	51	44	35	30	29
04:00	33	41	36	24	21	20	31	36	34	30	28	25	33	41	36	30	28	27
05:00	27	35	28	25	23	22	30	36	31	29	27	26	39	53	34	30	28	27
06:00	31	38	33	30	27	26	30	34	32	29	27	26	32	38	35	31	29	28
07:00	34	43	35	33	31	29	32	38	33	31	30	28	36	46	37	34	29	28
08:00	37	45	38	35	33	31	34	43	35	33	31	30	43	51	37	31	29	27
09:00	37	41	39	37	34	33	38	47	40	36	34	33	46	57	46	33	29	28
10:00	37	49	40	32	27	25	56	66	46	38	35	31	56	70	54	40	32	28
11:00	46	54	40	29	25	23	49	52	41	30	26	24	54	61	53	41	33	29
12:00	57	68	49	33	27	24	56	63	49	33	26	23	62	75	59	45	36	30
13:00	56	56	42	33	28	26					32	29	62	75	58	43	35	32
14:00	51	55	44	36	30	25	60	72	51	37	30	25	64	73	57	44	36	34
15:00	60	70	44	33	28	26	63	68	56	40	32	29	60	71	57	45	36	33
16:00	48	61	45	34	28	25	54	65	52	40	31	27	63	71	59	48	41	37
17:00	50	63	49	34	29	26	47	59	48	37	29	25	66	74	60	51	44	40
18:00	45	52	41	33	29	25	62	68	56	45	34	27	56	64	56	48	41	39
19:00	36	45	40	31	28	26	44	58	45	32	24	21	51	62	53	44	38	36
20:00	39	53	38	33	29	28	51	65	51	38	30	27	47	59	48	42	39	37
21:00	40	53	40	35	31	30	48	60	50	37	31	26	49	61	52	43	39	37
22:00	46	57	47	38	32	30	49	62	50	38	33	31	50	62	51	41	39	37
23:00	44	57	46	35	30	27	60	72	64	54	36	33	52	61	54	50	38	36
LD, dB(A)	52						56						59					
LN, dB(A)	39						53						56					
DNL, dB(A)	51						60						63					
Lmean, dB(A)	50						55						58					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

22-Feb-2009 Through 24-Feb-2009

Hour	Sunday						Monday						Tuesday					
	Feb-22-2009						Feb-23-2009						Feb-24-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	47	57	50	42	37	36	34	42	36	31	28	26	30	35	31	29	27	26
01:00	43	55	44	39	35	34	30	36	33	29	26	24	29	33	31	28	25	24
02:00	46	57	45	39	36	35	28	35	30	27	24	23	28	34	31	28	24	22
03:00	43	54	46	40	37	36	25	30	27	25	23	23	28	35	32	26	23	21
04:00	38	45	39	36	35	34	25	32	27	24	22	22	29	35	32	27	24	22
05:00	34	36	35	33	32	31	26	32	29	25	23	22	31	41	33	29	26	25
06:00	33	35	34	33	32	31	30	34	32	29	26	25	31	40	32	29	27	26
07:00	35	39	37	34	33	32	34	37	35	33	31	30	37	50	36	31	29	27
08:00	41	50	41	38	36	36	42	51	40	37	34	33	37	47	35	32	29	28
09:00	59	68	65	45	39	36	37	41	39	37	35	34	35	45	36	32	25	23
10:00	56	68	55	50	47	40	39	46	42	38	36	34	36	49	35	26	23	21
11:00	60	68	53	44	39	36	40	50	41	38	36	34	34	45	35	28	24	21
12:00	59	71	59	49	43	40	39	47	40	36	34	33	31	41	34	27	21	20
13:00	57	65	55	47	43	40	39	49	36	34	31	30	36	46	34	27	22	20
14:00	54	66	53	44	39	37	38	45	36	34	31	30	27	37	29	22	19	19
15:00	52	61	50	44	39	36			36	33	30	40	51	34	24	20	19	
16:00	57	68	55	44	38	35	37	48	39	33	29	27	40	53	35	22	19	18
17:00	56	66	52	43	38	35	40	48	36	30	28	26	47	58	37	22	18	17
18:00	50	64	50	35	31	29	42	49	38	34	31	30	43	55	38	23	19	18
19:00	54	66	48	33	29	27	32	37	34	32	28	27	30	39	28	22	19	18
20:00	49	61	52	41	30	28	36	48	34	31	28	27	32	39	34	28	24	22
21:00	46	59	49	31	27	25	31	36	33	31	28	26	32	42	34	28	25	23
22:00	32	39	35	30	27	25	30	34	32	30	27	26	36	49	34	31	29	28
23:00	31	36	33	30	28	26	30	38	32	29	26	24	31	36	33	30	28	27
LD, dB(A)	56						38						39					
LN, dB(A)	42						29						31					
DNL, dB(A)	54						39						40					
Lmean, dB(A)	54						37						37					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

25-Feb-2009 Through 27-Feb-2009

Hour	Wednesday Feb-25-2009						Thursday Feb-26-2009						Friday Feb-27-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	30	35	32	29	27	26	32	37	34	31	28	27	22	26	24	22	20	19
01:00	31	37	34	30	27	25	29	33	31	28	26	25	22	25	23	22	21	20
02:00	30	35	33	30	26	24	30	35	32	29	26	25	24	28	25	23	22	21
03:00	28	33	30	27	25	24	28	35	31	27	25	23	30	39	34	26	24	22
04:00	30	36	32	29	28	26	29	37	31	27	25	24	31	37	33	30	27	25
05:00	30	37	33	29	27	26	30	35	32	29	27	25	32	37	35	31	28	26
06:00	29	39	30	28	26	25	29	34	31	29	27	26	35	43	38	34	30	27
07:00	33	44	30	27	25	25	33	40	34	32	30	29	36	42	38	36	33	32
08:00	27	32	29	27	25	24	34	39	36	33	31	30	38	43	39	37	35	34
09:00	45	48	33	29	26	25	36	44	37	34	32	30	37	41	39	36	34	33
10:00	41	51	33	28	25	24	37	43	40	35	32	30	42	52	40	36	34	33
11:00	38	50	32	25	22	20	43	51	41	34	27	24	59	64	39	35	34	33
12:00	31	41	31	24	20	19	37	47	37	29	23	21	42	49	37	34	32	31
13:00	31	44	30	23	20	19	30	41	33	26	21	20	41	54	36	33	31	30
14:00	51	59	39	23	20	19	43	54	41	29	22	20	33	46	34	30	28	27
15:00	40	50	30	22	19	18	45	54	38	28	21	20	45	59	34	28	26	25
16:00	40	50	29	21	19	18							32	39	34	31	29	28
17:00	44	53	33	23	20	19							51	62	43	31	28	26
18:00	36	45	35	26	20	19					20	18	32	43	35	29	27	26
19:00	32	39	36	30	26	24	43	58	34	20	18	18	42	52	46	37	26	23
20:00	32	43	34	29	24	22	26	36	27	20	18	17	55	65	58	50	44	40
21:00	34	41	36	33	29	25	31	39	30	22	20	19	50	59	54	47	40	36
22:00	33	37	35	32	29	26	34	47	34	21	19	19	42	51	46	39	34	32
23:00	32	41	35	29	27	25	28	36	29	23	20	19	32	38	33	30	28	27
LD, dB(A)	42						40						50					
LN, dB(A)	31						30						35					
DNL, dB(A)	41						40						48					
Lmean, dB(A)	40						38						48					
Hours (Day)	15						12						15					
Hours (Night)	9						9						9					
Hours (Total)	24						21						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

28-Feb-2009 Through 02-Mar-2009

Hour	Saturday						Sunday						Monday					
	Feb-28-2009						Mar-01-2009						Mar-02-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	36	48	38	30	27	26	27	36	27	24	22	21	29	33	31	28	26	24
01:00	27	32	29	27	25	24	26	35	27	25	23	22	28	32	30	27	25	24
02:00	27	31	29	27	25	24	27	34	28	26	24	23	28	35	31	27	24	23
03:00	26	30	28	26	25	24	26	31	28	26	24	23	27	33	29	26	24	23
04:00	30	41	32	26	24	23	26	32	27	25	24	22	27	32	30	27	24	23
05:00	27	30	28	26	25	24	25	28	27	25	23	23	29	37	31	28	26	24
06:00	32	44	32	28	26	25	28	31	29	27	25	23	31	37	33	29	27	26
07:00	33	45	30	27	26	25	31	34	32	30	28	27	30	37	31	28	26	25
08:00	31	36	32	30	27	26	35	48	36	30	27	26	33	43	35	31	28	26
09:00	39	48	42	35	31	29	38	48	39	33	30	28	34	39	36	34	32	30
10:00	46	55	50	44	38	35	42	50	33	27	25	24	36	49	35	31	28	26
11:00	49	57	50	45	39	35	51	62	42	28	25	24	34	48	31	27	25	24
12:00	63	69	53	46	41	36	46	51	41	28	24	23	28	40	28	25	22	21
13:00	55	61	54	48	42	38	56	66	48	36	30	26	25	32	27	24	21	19
14:00	50	61	53	47	41	37	51	64	53	40	34	31	27	39	27	20	19	18
15:00	59	68	53	44	36	30					36	30	45	52	32	21	17	16
16:00	46	57	49	40	34	30	45	58	44	36	30	27	39	52	31	20	16	16
17:00	37	46	40	35	29	25	49	59	47	35	29	27	30	38	33	28	25	24
18:00	44	56	38	26	22	20	48	58	38	30	27	25	37	49	35	32	29	28
19:00	27	37	29	24	22	21	31	38	34	30	27	26	35	39	37	35	31	29
20:00	30	39	32	28	24	22	33	39	36	32	28	27	39	47	41	37	35	34
21:00	30	37	32	29	26	25	30	34	32	30	28	27	38	44	40	37	35	34
22:00	29	33	30	27	25	23	36	39	33	31	28	27	34	40	36	33	30	28
23:00	31	43	31	27	24	23	32	38	35	31	28	26	32	38	34	31	29	28
LD, dB(A)	53						48						37					
LN, dB(A)	31						30						30					
DNL, dB(A)	51						46						38					
Lmean, dB(A)	51						46						36					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

03-Mar-2009 Through 05-Mar-2009

Hour	Tuesday						Wednesday						Thursday					
	Mar-03-2009						Mar-04-2009						Mar-05-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	35	40	34	31	28	27	31	37	33	29	27	26	30	35	32	30	28	26
01:00	34	38	36	33	30	27	29	35	31	28	26	24	32	38	34	31	28	26
02:00	35	41	38	34	30	28	28	33	30	27	25	23	30	35	32	29	27	25
03:00	34	41	36	32	28	26	29	34	32	28	26	24	30	33	31	29	28	27
04:00	34	38	36	34	31	29	29	35	31	28	27	25	32	37	35	30	28	26
05:00	36	41	38	36	33	31	29	32	31	29	27	25	30	34	32	29	28	26
06:00	37	41	39	36	34	32	31	34	32	30	28	27	31	35	32	30	28	27
07:00	36	45	38	35	33	32	34	43	35	32	31	30	33	40	34	31	29	28
08:00	37	47	38	36	34	32	36	43	38	35	32	31	34	43	35	32	30	29
09:00	38	43	39	37	35	34	39	51	38	36	34	33	42	51	45	39	35	33
10:00	38	44	40	36	33	32	36	45	38	35	32	31	48	56	51	46	42	39
11:00	38	48	39	36	33	32			31	28	26	26	50	58	53	47	43	39
12:00	40	50	37	33	29	27	53	53	40	31	24	22	49	57	52	47	44	40
13:00	28	40	30	23	18	17	41	50	43	36	31	27	49	58	52	47	43	40
14:00	46	54	29	20	18	17	45	54	48	42	35	32	50	59	53	47	42	39
15:00	38	52	38	26	19	17	46	56	48	43	39	32	48	56	51	46	42	40
16:00	37	49	39	25	19	17	51	63	48	39	34	31	48	57	51	46	42	40
17:00	34	43	30	23	21	20	39	49	40	33	29	28	46	53	49	44	40	36
18:00	34	43	35	29	23	21	52	55	40	31	25	24	43	51	46	41	35	33
19:00	30	38	33	29	26	24	30	36	30	27	25	24	36	45	37	33	31	30
20:00	34	42	34	31	29	27	33	42	32	29	26	24	32	38	34	31	29	28
21:00	32	39	33	30	29	27	30	34	32	29	26	24	38	44	40	36	33	31
22:00	32	38	35	31	29	27	33	39	36	31	29	28	35	42	37	33	29	27
23:00	31	35	33	31	28	27	31	35	33	31	28	26	31	42	32	28	26	25
LD, dB(A)	38						46						46					
LN, dB(A)	35						30						31					
DNL, dB(A)	42						45						45					
Lmean, dB(A)	37						44						44					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

06-Mar-2009 Through 08-Mar-2009

Hour	Friday						Saturday						Sunday					
	Mar-06-2009						Mar-07-2009						Mar-08-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	31	44	31	27	25	23	34	41	36	32	26	24	30	38	32	28	25	24
01:00	27	32	29	26	24	23	36	42	38	34	32	30	32	38	34	31	27	26
02:00	27	34	29	26	25	23	30	37	34	29	23	22	29	35	32	28	26	25
03:00	27	31	29	27	24	23	43	57	39	29	26	25	30	40	31	28	26	25
04:00	30	34	32	30	28	26	28	35	30	27	23	22	33	41	36	28	26	25
05:00	30	35	33	28	26	25	30	38	32	29	26	24	32	41	33	29	27	25
06:00	33	38	36	32	29	28	27	33	30	26	25	23	30	35	33	29	27	24
07:00	35	40	38	34	32	31	32	38	33	30	28	26	37	48	37	30	28	25
08:00	37	46	39	35	33	31	36	46	36	33	31	29	44	49	35	31	29	28
09:00	37	41	39	37	35	33	43	52	42	36	32	31				34	31	27
10:00	35	40	37	34	32	31	47	61	45	39	36	35						
11:00	39	52	39	34	31	27	51	62	54	46	40	36				28	25	23
12:00	30	39	32	28	24	22	55	66	57	51	46	43	59	59	45	28	22	21
13:00	42	50	36	26	21	20	54	64	56	50	45	43	52	61	45	33	27	24
14:00	46	58	36	26	21	20	56	66	54	49	43	40	54	65	51	38	29	26
15:00	34	44	34	23	19	18	53	64	55	49	44	41	55	63	46	36	31	28
16:00	45	57	41	28	23	20	54	66	55	49	45	42	52	58	48	37	29	25
17:00	44	53	41	33	29	26	50	62	51	43	39	37	51	65	48	39	34	29
18:00	37	43	33	30	28	27	40	50	42	37	32	30	74	67	50	39	35	32
19:00	32	40	34	30	27	24	37	43	39	36	32	30	78	94	51	37	26	24
20:00	33	44	32	27	25	23	39	54	36	28	23	21	28	35	31	27	25	24
21:00	30	38	32	28	25	23	38	51	37	32	29	27	38	46	41	37	33	30
22:00	43	56	42	33	28	26	32	42	34	30	28	26	40	48	43	39	35	34
23:00	35	43	38	32	27	25	29	35	30	28	27	26	38	45	40	37	33	31
LD, dB(A)	40						51						69					
LN, dB(A)	35						35						34					
DNL, dB(A)	43						49											
Lmean, dB(A)	39						49						66					
Hours (Day)	15						15						12					
Hours (Night)	9						9						9					
Hours (Total)	24						24						21					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

09-Mar-2009 Through 11-Mar-2009

Hour	Monday						Tuesday						Wednesday					
	Mar-09-2009						Mar-10-2009						Mar-11-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	37	45	40	36	33	31	32	37	34	31	29	27	23	28	25	22	21	20
01:00	32	39	35	31	26	24	33	38	35	32	29	28	23	31	24	22	21	20
02:00	31	41	33	27	24	23	33	41	35	31	27	26	23	27	24	22	21	20
03:00	28	34	31	27	24	22	32	38	34	31	29	28	29	39	32	25	22	20
04:00	30	38	34	27	23	22	34	40	35	33	31	30	26	37	29	22	21	20
05:00	37	48	38	35	25	23	32	37	34	32	31	30	22	24	23	22	21	20
06:00	34	39	36	33	30	29	33	37	35	33	31	30	25	36	25	22	21	20
07:00	37	49	36	32	30	29	36	41	38	35	32	31	26	34	27	25	23	21
08:00	36	43	38	35	32	31	35	43	37	34	32	31	31	39	29	25	24	23
09:00	40	47	41	38	36	35	42	49	45	41	37	35	28	38	30	25	23	23
10:00	40	48	42	38	36	34	47	55	49	45	41	40	35	48	32	26	24	22
11:00	40	48	42	38	35	33	50	58	52	47	42	38	29	39	31	26	23	22
12:00	44	51	47	43	37	33	51	59	54	49	45	42	30	38	33	27	24	23
13:00	47	55	50	45	41	38	50	58	53	48	44	41	29	37	32	25	23	22
14:00	50	57	53	48	43	40	47	55	50	44	38	35	30	40	33	26	23	21
15:00	57	72	53	49	46	42	51	61	54	45	36	31	29	38	31	26	23	22
16:00	55	71	50	46	42	40	47	56	50	45	42	40	32	47	32	26	23	22
17:00	53	52	47	42	38	36	44	54	47	43	39	34	31	41	34	26	23	22
18:00	50	61	47	42	38	34	43	52	47	41	36	33	30	40	33	27	22	20
19:00	42	50	45	39	35	32	45	56	46	39	34	32	36	39	28	22	18	17
20:00	34	42	37	33	30	28	44	55	42	33	29	27	25	34	27	20	18	17
21:00	36	45	34	30	28	27	32	41	35	30	25	23	24	36	26	18	17	16
22:00	33	38	35	32	30	27	31	44	29	25	23	22	20	30	21	18	17	16
23:00	31	35	32	30	28	27	25	32	27	24	22	21	24	32	26	22	18	17
LD, dB(A)	50						47						31					
LN, dB(A)	33						32						25					
DNL, dB(A)	48						46						33					
Lmean, dB(A)	48						45						29					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

12-Mar-2009 Through 14-Mar-2009

Hour	Thursday						Friday						Saturday					
	Mar-12-2009						Mar-13-2009						Mar-14-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	28	38	29	26	23	20	22	28	25	21	19	18	27	33	29	27	25	24
01:00	25	34	25	23	21	18	20	25	22	20	18	17	26	33	28	25	23	22
02:00	22	32	24	20	18	17	17	21	19	16	15	15	28	34	29	27	25	23
03:00	25	31	28	23	19	18	16	18	16	15	15	15	30	38	31	28	25	24
04:00	30	35	32	29	26	24	19	30	19	15	15	15	30	38	32	29	27	25
05:00	31	41	31	28	25	23	17	25	19	16	15	15	29	35	32	28	24	22
06:00	30	35	33	30	26	23	17	22	18	16	15	15	31	37	34	30	27	24
07:00	29	37	31	27	24	23	25	38	24	17	16	15	34	39	36	32	27	24
08:00	34	41	37	33	29	28	33	47	26	18	17	16	37	41	39	36	33	32
09:00	33	38	35	32	29	27	24	33	27	21	18	17	42	55	40	37	35	33
10:00				29	26	25	28	39	30	22	18	17	45	57	38	33	27	25
11:00	36	48	38	29	27	25	38	50	35	24	18	17	34	45	32	27	25	24
12:00	33	45	35	28	25	24	33	46	35	24	20	18	41	54	37	26	25	23
13:00	33	46	34	28	26	25	36	47	36	28	22	20	30	40	32	27	25	24
14:00	31	41	32	28	26	24	36	47	38	30	23	21	47	54	38	28	25	24
15:00	47	44	34	29	27	27	39	50	34	23	18	17	49	52	41	28	25	24
16:00	37	49	36	28	26	25	34	47	34	31	30	24	44	57	40	29	25	24
17:00	33	45	34	28	25	23	30	39	33	28	23	21	61	68	45	32	27	25
18:00	32	42	34	28	25	23	24	31	27	23	20	19	43	58	34	28	24	23
19:00	38	53	38	32	29	27	27	34	29	26	24	22	40	53	38	30	24	22
20:00	36	42	38	35	32	31	44	49	33	26	24	23	37	45	40	36	33	30
21:00	36	44	36	34	32	31	29	39	31	27	23	21	36	45	38	34	32	31
22:00	31	39	34	30	26	25	25	34	26	23	22	21	34	40	37	32	29	28
23:00	26	38	26	23	21	20	25	31	26	24	22	21	35	38	36	34	32	31
LD, dB(A)	38						36						50					
LN, dB(A)	28						21						31					
DNL, dB(A)	38						35						48					
Lmean, dB(A)	36						34						48					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

15-Mar-2009 Through 17-Mar-2009

Hour	Sunday						Monday						Tuesday					
	Mar-15-2009						Mar-16-2009						Mar-17-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	33	41	35	32	28	26	31	35	29	25	23	22	30	36	33	29	25	24
01:00	34	40	37	33	30	27	26	33	29	24	22	21	29	35	32	28	23	20
02:00	35	41	38	34	31	30	28	32	30	27	24	22	30	37	33	28	23	19
03:00	33	36	35	33	30	28	27	32	30	26	24	23	29	34	31	28	25	23
04:00	34	38	36	33	30	28	28	33	31	27	25	24	31	35	33	31	29	26
05:00	31	36	34	30	27	25	32	44	34	28	26	25	32	37	34	32	29	28
06:00	32	36	34	31	29	28	30	35	32	29	27	25	33	36	34	32	30	29
07:00	33	37	35	32	31	29	39	52	42	30	28	26	34	45	35	32	30	29
08:00	40	53	39	34	33	32	32	42	32	29	27	26	37	48	38	34	32	31
09:00	40	50	41	38	34	33	34	43	36	32	29	28	37	42	38	36	35	34
10:00	34	42	36	33	30	28	35	42	37	32	29	27	48	53	42	39	37	36
11:00	44	46	35	31	27	26	47	62	38	29	26	25	54	67	53	34	29	27
12:00	45	59	42	31	26	24	50	62	45	34	25	22	51	54	36	28	26	24
13:00	65	80	52	39	31	28	49	63	45	30	24	21	47	59	44	27	23	22
14:00	61	66	53	41	34	31	52	65	44	28	22	19	44	55	37	27	23	21
15:00				43	34	29	44	58	37	28	24	22	45	58	44	29	25	23
16:00	60	70	52	39	31	28	62	72	59	29	23	20	61	68	48	32	27	25
17:00	54	63	45	35	28	24	51	53	35	26	21	19	61	59	44	33	27	24
18:00	57	69	52	38	29	24	58	67	52	35	23	20	61	66	52	37	29	26
19:00	48	60	46	32	24	20	41	54	41	28	22	21	50	54	46	35	27	24
20:00	41	55	38	24	18	17	44	55	45	27	20	19	47	61	45	28	23	20
21:00	44	58	45	38	24	21	33	43	35	27	23	21	42	52	33	25	22	19
22:00	45	60	38	25	22	20	39	47	42	33	25	22	30	40	32	25	22	19
23:00	27	35	29	26	23	22	28	34	31	27	24	22	31	45	31	27	24	23
LD, dB(A)	57						53						55					
LN, dB(A)	37						32						31					
DNL, dB(A)	55						51						53					
Lmean, dB(A)	55						51						53					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR003

18-Mar-2009 Through 19-Mar-2009

Hour	Wednesday						Thursday											
	Mar-18-2009						Mar-19-2009											
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)						
00:00	28	37	30	26	24	23	52	54	53	52	51	50						
01:00	29	42	30	25	23	21	52	54	53	52	51	50						
02:00	27	37	29	24	22	20	46	53	52	31	24	22						
03:00	31	43	31	27	25	24	28	38	29	25	23	22						
04:00	30	35	32	29	27	26	41	40	30	24	22	20						
05:00	30	38	32	29	27	26	30	40	28	22	20	19						
06:00	28	33	30	28	26	25	27	36	29	23	20	19						
07:00	32	40	33	31	28	27	40	54	39	27	22	21						
08:00	39	51	37	33	30	29	34	47	35	26	21	20						
09:00	40	49	39	32	29	27	40	47	42	39	38	37						
10:00	47	53	40	35	32	31	34	41	38	29	23	21						
11:00	47	52	44	36	32	30												
12:00	55	64	49	40	34	29												
13:00	53	64	51	43	34	30												
14:00	52	64	55	43	35	29												
15:00	51	63	47	36	30	27												
16:00	49	63	45	37	32	29												
17:00	56	68	52	40	35	31												
18:00	56	61	54	43	37	33												
19:00	51	60	55	38	29	23												
20:00	53	58	55	54	25	20												
21:00	50	54	54	36	22	20												
22:00	53	54	54	53	52	29												
23:00	52	54	53	52	51	51												
LD, dB(A)	52						38											
LN, dB(A)	46						47											
DNL, dB(A)	54																	
Lmean, dB(A)	50						46											
Hours (Day)	15						4											
Hours (Night)	9						7											
Hours (Total)	24						11											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

16-Feb-2009 Through 18-Feb-2009

Hour	Monday						Tuesday						Wednesday					
	Feb-16-2009						Feb-17-2009						Feb-18-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													30	37	33	29	24	22
01:00													29	37	32	27	25	23
02:00													28	33	30	27	24	22
03:00													35	45	38	29	26	23
04:00													31	37	33	30	27	24
05:00													32	38	34	31	28	26
06:00													34	39	37	34	31	30
07:00													35	39	37	34	32	29
08:00													37	41	39	36	33	32
09:00													38	45	40	37	33	31
10:00													42	52	46	39	34	30
11:00													42	51	45	39	33	29
12:00													41	52	44	34	28	25
13:00													45	57	44	33	26	23
14:00													41	52	45	33	24	21
15:00													52	67	51	35	27	23
16:00													42	52	44	36	28	23
17:00							61	70	64	56	49	45	44	49	39	30	23	21
18:00							60	70	63	55	48	43	35	46	35	27	21	19
19:00							50	60	54	47	41	39	28	38	32	23	19	18
20:00							42	52	45	39	35	33	30	40	33	26	22	20
21:00							49	58	52	45	36	33	25	35	28	22	20	19
22:00							40	51	43	36	31	28	36	49	39	26	21	20
23:00							34	42	36	32	28	25	26	35	30	22	20	19
LD, dB(A)							57						43					
LN, dB(A)							38						32					
DNL, dB(A)													43					
Lmean, dB(A)							55						41					
Hours (Day)	0						5						15					
Hours (Night)	0						2						9					
Hours (Total)	0						7						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

19-Feb-2009 Through 21-Feb-2009

Hour	Thursday Feb-19-2009						Friday Feb-20-2009						Saturday Feb-21-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	44	50	30	26	23	21	41	51	43	37	34	33	73	82	76	69	63	59
01:00	37	49	33	28	23	22	44	55	47	39	33	31	59	69	63	54	48	45
02:00	37	49	31	25	22	21	38	45	40	36	33	31	54	65	56	48	43	40
03:00	25	29	27	24	22	20	35	40	37	34	32	30	47	58	48	44	35	33
04:00	28	37	29	26	24	22	35	40	38	34	30	28	44	47	46	45	30	29
05:00	30	35	33	29	27	26	34	39	36	33	31	29	44	59	39	32	29	29
06:00	36	41	39	34	32	31	34	38	36	33	31	30	44	49	47	45	31	29
07:00	38	42	40	38	35	34	36	40	38	36	34	31	42	47	46	32	31	30
08:00	45	54	44	41	39	37	40	48	42	38	36	34	44	54	46	38	32	31
09:00	42	47	45	42	38	36	45	55	46	43	40	38	55	65	52	44	36	34
10:00	39	48	43	36	32	30	44	53	47	42	37	33	54	63	55	50	43	39
11:00	40	49	42	35	31	29	42	52	41	36	32	30	51	59	53	47	41	38
12:00	39	49	41	35	32	30					35	32	53	64	55	46	41	37
13:00	47	57	50	42	35	31	42	53	43	36	32	30	50	61	52	41	37	34
14:00	50	61	53	45	38	34	44	55	46	39	34	31	47	58	47	41	37	35
15:00	45	55	49	40	35	32	43	52	45	40	35	33	47	57	49	43	39	37
16:00	48	58	50	42	35	31	45	54	46	41	38	35	53	63	56	49	44	40
17:00	45	56	47	40	34	30	47	60	47	39	34	31	54	62	55	50	47	44
18:00	46	56	50	41	36	33	49	59	51	44	38	35	54	63	56	51	48	45
19:00	42	53	45	38	33	32	49	59	52	47	36	32	49	57	51	47	45	44
20:00	38	48	40	36	33	32	49	61	50	44	32	29	51	61	53	48	45	44
21:00	39	45	41	38	35	33	49	61	48	40	34	32	50	60	52	46	44	43
22:00	45	55	46	40	38	35	48	59	51	45	40	39	50	60	52	47	45	43
23:00	44	54	45	39	36	34	71	81	76	64	39	36	50	61	52	47	45	44
LD, dB(A)	44						46						51					
LN, dB(A)	40						61						63					
DNL, dB(A)	48						67						69					
Lmean, dB(A)	43						58						60					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

22-Feb-2009 Through 24-Feb-2009

Hour	Sunday						Monday						Tuesday					
	Feb-22-2009						Feb-23-2009						Feb-24-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	49	56	51	46	43	42	37	46	40	32	29	27	34	39	37	34	31	29
01:00	48	55	51	45	43	42	33	42	36	30	27	23	34	39	37	33	28	26
02:00	47	54	50	46	43	42	32	39	35	31	27	25	30	36	33	29	25	23
03:00	46	53	48	44	42	41	29	35	31	27	24	23	32	40	35	29	24	20
04:00	46	55	47	44	43	42	28	33	30	27	24	23	34	41	38	33	29	25
05:00	46	53	47	43	42	41	28	35	31	27	24	23	34	41	37	33	29	27
06:00	44	48	47	43	42	41	32	38	35	31	28	26	35	42	36	34	31	30
07:00	45	48	47	45	42	41	33	38	35	32	30	29	37	43	38	35	33	31
08:00	47	50	49	46	44	43	41	51	43	38	35	32	39	45	41	38	35	33
09:00	48	56	52	46	43	42	37	42	39	37	35	33	37	44	39	37	32	29
10:00	54	65	58	47	43	41	39	48	42	36	34	32	37	47	39	33	27	24
11:00	58	67	62	56	50	46	38	46	40	37	34	33	37	47	40	32	27	26
12:00	61	70	65	58	51	47	38	47	40	35	32	30	36	47	40	31	26	25
13:00	61	70	65	58	51	47	46	51	38	34	32	31	35	45	38	30	26	24
14:00	60	70	63	56	49	45	36	42	37	35	33	31	34	44	36	28	24	22
15:00	59	69	63	56	48	43					36	34	37	49	38	28	23	21
16:00	57	65	61	53	46	42	42	51	41	36	33	31	34	45	36	26	22	21
17:00	57	67	61	52	44	40	39	49	38	34	32	30	32	43	35	27	22	20
18:00	48	58	51	43	36	33	38	43	41	38	36	34	33	44	36	28	21	20
19:00	41	51	43	36	32	30	38	42	40	38	34	32	26	34	29	24	21	20
20:00	38	49	40	33	30	28	39	48	39	36	33	31	40	55	36	28	25	22
21:00	37	48	39	33	30	27	36	40	38	36	33	30	33	41	36	31	27	26
22:00	35	41	38	33	29	26	35	39	37	34	31	28	37	47	36	33	31	30
23:00	34	39	36	33	30	28	33	39	36	32	29	28	35	40	38	35	31	28
LD, dB(A)	56						40						36					
LN, dB(A)	46						33						34					
DNL, dB(A)	56						41						41					
Lmean, dB(A)	55						38						35					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

25-Feb-2009 Through 27-Feb-2009

Hour	Wednesday Feb-25-2009						Thursday Feb-26-2009						Friday Feb-27-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	34	39	37	33	30	29	35	41	38	35	32	29	28	34	32	27	22	20
01:00	32	38	35	30	23	21	31	36	33	30	28	26	28	36	31	27	24	23
02:00	32	38	35	31	26	24	32	38	35	32	26	24	31	38	33	29	26	24
03:00	35	43	34	31	29	26	30	39	32	28	26	22	36	45	40	32	29	26
04:00	34	39	37	34	30	27	32	41	34	31	28	26	35	44	38	34	29	27
05:00	35	42	37	33	31	29	33	38	34	31	29	27	36	43	39	35	30	28
06:00	35	45	33	31	30	29	39	41	35	32	30	28	40	48	42	38	33	29
07:00	34	44	35	30	28	27	36	42	38	36	34	32	41	47	43	40	37	35
08:00	33	40	34	30	27	26	37	42	39	36	34	32	42	49	45	41	38	36
09:00	33	43	34	30	28	27	40	49	43	38	35	33	40	44	42	39	37	34
10:00	40	52	35	31	29	27	42	50	45	39	35	33	39	45	42	38	36	35
11:00	32	42	35	29	25	24	44	56	46	37	31	27	37	42	39	37	35	33
12:00	32	42	35	28	24	23	44	55	46	37	29	26	36	43	38	35	33	32
13:00	33	43	35	27	24	22	46	55	42	31	24	22	39	50	40	35	33	32
14:00	31	40	34	28	24	22	41	53	44	34	26	24	36	46	37	33	31	30
15:00	33	45	36	26	23	21	43	56	43	33	26	23	33	40	35	31	29	28
16:00	44	60	33	27	24	22	41	51	46	36	23	21	40	51	43	36	33	31
17:00	36	47	37	29	24	22					32	30	42	52	45	38	33	30
18:00	33	44	35	29	24	22	35	46	39	31	26	24	40	50	44	35	32	30
19:00	36	44	40	32	28	25	42	58	35	26	21	19	53	64	56	46	33	29
20:00	36	45	38	34	30	26	28	39	29	22	20	19	64	74	68	59	51	48
21:00	36	44	39	34	31	29	29	41	30	24	21	20	61	71	64	55	48	44
22:00	35	42	37	33	30	27	33	45	35	23	21	20	50	61	52	44	37	34
23:00	35	41	38	34	30	26	32	44	34	26	22	21	34	42	36	32	29	28
LD, dB(A)	37						41						54					
LN, dB(A)	34						34						41					
DNL, dB(A)	41						42						53					
Lmean, dB(A)	36						40						53					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

28-Feb-2009 Through 02-Mar-2009

Hour	Saturday						Sunday						Monday					
	Feb-28-2009						Mar-01-2009						Mar-02-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	42	54	46	36	29	27	27	32	29	26	24	23	32	38	34	31	28	25
01:00	31	42	32	28	26	25	29	33	31	28	26	25	33	38	36	32	29	27
02:00	29	35	31	28	26	25	29	35	31	28	26	26	33	39	36	31	27	25
03:00	29	35	32	28	26	24	28	32	29	28	26	25	30	35	32	29	26	24
04:00	37	49	38	29	26	25	29	36	31	29	27	26	29	33	31	28	25	24
05:00	27	31	29	27	25	24	30	35	32	29	26	25	31	38	33	30	27	26
06:00	40	51	44	29	27	26	30	35	32	30	26	24	34	40	36	32	30	29
07:00	34	43	36	31	28	27	34	39	37	32	30	28	32	38	34	31	29	27
08:00	33	39	36	32	30	29	37	45	41	35	32	30	35	44	38	34	30	29
09:00	43	54	45	37	32	31	41	50	43	35	31	30	35	41	37	34	32	30
10:00	51	61	54	46	40	36	37	49	38	31	28	27	38	50	37	32	30	29
11:00	51	61	54	45	40	36	35	47	37	31	28	26	35	47	36	31	28	27
12:00	52	62	56	48	42	39	42	53	45	34	28	26	27	33	30	27	24	22
13:00	54	64	57	49	42	37	48	58	51	43	37	34	27	35	29	26	24	22
14:00	55	66	58	50	44	40					41	37	27	38	29	23	21	19
15:00	53	63	55	47	41	36	50	61	54	46	40	36	30	42	30	24	19	18
16:00	48	59	51	42	36	31	50	60	54	45	38	34	26	36	30	20	18	17
17:00	42	52	44	37	31	28	48	59	50	43	36	33	34	42	37	32	29	27
18:00	32	42	36	28	22	20	41	52	45	36	30	28	37	44	39	35	32	30
19:00	26	37	29	23	21	20	52	41	36	32	29	28	38	44	40	37	34	32
20:00	29	33	31	29	23	21	37	42	39	36	34	32	41	48	44	40	37	34
21:00	30	36	32	29	28	27	35	39	37	35	32	31	38	45	39	36	34	33
22:00	31	36	32	30	28	26	37	41	37	34	32	30	36	42	38	34	32	30
23:00	29	35	31	29	26	24	35	43	38	33	30	28	35	40	37	34	32	30
LD, dB(A)	49						46						35					
LN, dB(A)	36						32						33					
DNL, dB(A)	48						45						40					
Lmean, dB(A)	47						44						35					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

03-Mar-2009 Through 05-Mar-2009

Hour	Tuesday						Wednesday						Thursday					
	Mar-03-2009						Mar-04-2009						Mar-05-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	34	39	37	34	29	27	33	37	36	33	30	28	31	36	33	30	28	27
01:00	35	40	38	35	32	29	31	37	33	30	28	26	34	40	37	33	29	25
02:00	38	45	42	36	32	30	30	35	32	30	27	26	33	42	36	32	30	27
03:00	38	46	41	36	30	28	33	40	36	32	29	27	33	38	35	33	30	28
04:00	38	42	40	37	35	32	32	36	34	31	29	28	35	42	39	34	30	27
05:00	38	44	41	37	35	32	35	41	38	34	31	27	34	39	37	33	31	29
06:00	41	45	43	41	38	36	37	42	40	37	34	30	34	39	36	33	31	28
07:00	43	48	45	42	40	38	40	44	42	40	38	35	36	43	38	34	32	31
08:00	44	48	46	44	42	40	43	49	45	43	40	38	36	40	38	36	34	33
09:00	45	48	46	44	42	41	46	56	46	43	41	39	61	68	59	50	42	39
10:00	43	49	46	42	40	39	75	94	41	37	34	32	64	74	68	60	52	48
11:00	41	45	43	41	38	37				33	29	27	65	75	69	61	53	48
12:00	35	42	37	34	31	29	46	58	50	38	30	28	66	76	70	62	55	50
13:00	30	39	32	27	23	21	56	67	60	49	41	36	67	76	71	63	55	50
14:00	30	38	33	26	22	21	59	70	62	52	44	39	67	77	71	62	54	48
15:00	39	51	40	29	23	21	63	74	66	57	48	43	66	77	70	61	53	48
16:00	38	41	32	26	23	21	56	67	60	50	40	36	65	76	69	60	52	47
17:00	30	38	32	28	25	23	48	58	51	43	37	34	63	73	67	58	50	46
18:00	36	46	38	31	25	23	45	56	48	39	29	26	57	68	61	52	43	38
19:00	36	42	38	35	32	31	29	35	31	28	25	24	47	58	51	42	37	35
20:00	37	43	40	36	33	30	34	42	33	30	26	25	43	53	46	39	35	33
21:00	34	39	36	33	31	29	33	39	36	31	28	25	54	63	58	49	42	38
22:00	35	41	38	34	31	29	35	42	37	33	30	29	45	56	48	38	30	25
23:00	35	39	37	34	30	28	32	37	35	32	29	27	32	38	34	30	28	25
LD, dB(A)	40						64						63					
LN, dB(A)	37						34						37					
DNL, dB(A)	44						62						61					
Lmean, dB(A)	39						62						61					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

06-Mar-2009 Through 08-Mar-2009

Hour	Friday						Saturday						Sunday					
	Mar-06-2009						Mar-07-2009						Mar-08-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	30	35	32	30	27	24	48	58	51	42	35	31	35	44	38	30	27	26
01:00	31	36	34	31	26	24	48	59	52	44	38	36	40	50	43	36	32	29
02:00	31	36	33	30	27	25	41	52	44	35	28	25	32	40	34	30	28	27
03:00	32	37	35	32	28	25	31	38	33	29	26	24	34	44	35	30	28	27
04:00	34	39	36	34	31	29	30	37	32	29	26	25	37	44	37	31	29	27
05:00	34	40	36	33	30	28	35	40	37	34	30	27	32	39	34	31	28	27
06:00	37	43	39	36	33	31	34	39	37	33	30	28	32	38	34	31	27	25
07:00	39	43	41	39	36	35	39	44	42	38	35	33	44	53	42	35	32	30
08:00	40	47	43	38	35	34	42	45	44	41	39	37	39	43	41	38	35	33
09:00	41	45	43	40	38	37	53	65	55	44	39	38				41	35	31
10:00	58	70	60	43	39	37	54	66	57	46	40	37	45	56	43	35	31	28
11:00	60	74	59	48	43	41	67	78	71	60	50	45	47	59	49	35	30	27
12:00	48	60	51	41	34	32	71	80	75	67	59	53						
13:00	38	50	41	33	28	25	69	79	73	64	55	50	46	57	48	38	31	28
14:00	45	57	49	39	30	26	67	78	71	62	53	48	51	62	54	44	36	33
15:00	41	54	43	32	26	23	70	80	74	65	56	50	54	66	58	46	37	33
16:00	43	55	43	34	29	27	69	79	73	64	56	50	52	63	55	45	37	32
17:00	55	66	53	39	34	32	62	72	66	58	50	46	59	70	62	52	43	39
18:00	36	40	38	36	33	31	55	65	59	50	44	41	60	71	64	54	44	40
19:00	34	41	36	32	30	27	53	64	57	48	40	36	56	67	60	46	34	30
20:00	32	41	33	29	26	25	44	55	40	32	28	26	41	53	43	35	31	30
21:00	44	56	46	34	29	27	43	54	45	37	32	29	57	68	61	51	42	37
22:00	47	58	51	41	35	31	35	43	38	33	30	28	59	69	63	54	45	40
23:00	46	57	49	39	32	30	33	41	35	32	29	28	56	67	60	51	42	38
LD, dB(A)	51						65						54					
LN, dB(A)	40						42						51					
DNL, dB(A)	51						63						58					
Lmean, dB(A)	49						63						53					
Hours (Day)	15						15						13					
Hours (Night)	9						9						9					
Hours (Total)	24						24						22					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

09-Mar-2009 Through 11-Mar-2009

Hour	Monday						Tuesday						Wednesday					
	Mar-09-2009						Mar-10-2009						Mar-11-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	50	60	53	43	37	34	35	42	37	34	31	30	34	47	35	28	25	23
01:00	47	58	50	39	32	30	38	44	41	37	33	31	25	32	27	24	23	22
02:00	35	41	38	33	29	27	37	47	40	35	29	27	24	31	26	23	22	21
03:00	42	53	45	37	31	26	40	51	43	36	32	30	24	27	25	24	22	22
04:00	35	42	39	33	29	26	42	52	44	38	34	33	24	32	26	23	22	21
05:00	53	65	57	44	31	29	38	46	40	36	34	33	24	28	26	24	23	23
06:00	42	53	45	37	33	31	40	47	42	38	36	35	25	35	25	23	22	22
07:00	38	49	39	34	31	30	44	55	46	40	37	36	27	34	29	26	23	22
08:00	43	54	47	39	35	33	46	57	46	40	38	37	33	42	35	30	27	26
09:00	52	62	56	47	42	40	58	70	62	51	43	41	31	39	34	28	26	26
10:00	58	68	62	52	43	39	66	77	69	60	52	46	36	46	39	32	29	28
11:00	59	70	63	53	44	40	67	78	71	61	51	45	40	49	44	37	31	29
12:00	62	70	64	54	45	40	68	77	71	64	56	51	40	50	43	35	30	28
13:00	67	78	70	61	52	47	66	76	70	62	54	49	37	48	40	32	27	25
14:00	69	79	72	63	53	48	59	69	63	54	46	41	39	49	41	33	27	25
15:00	69	80	74	64	55	49	63	76	67	53	42	38	41	52	45	37	30	27
16:00	66	77	69	61	52	48	59	70	62	53	47	44	40	51	44	35	29	27
17:00	63	74	67	58	48	41	55	66	58	50	44	41	43	52	46	39	32	28
18:00	64	74	68	58	49	43	54	65	57	49	43	40	42	51	45	39	33	31
19:00	59	70	63	52	43	39	52	63	55	45	38	36	40	49	42	32	25	22
20:00	50	61	53	42	36	33	41	53	44	36	32	30	28	36	31	25	22	20
21:00	41	52	43	36	33	31	40	50	43	36	31	29	25	35	27	21	19	18
22:00	35	41	38	34	31	29	37	49	40	31	27	26	22	30	24	21	19	18
23:00	37	46	39	35	33	31	37	47	40	32	28	25	24	32	27	23	19	18
LD, dB(A)	63						62						39					
LN, dB(A)	46						39						27					
DNL, dB(A)	62						60						38					
Lmean, dB(A)	61						60						37					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

12-Mar-2009 Through 14-Mar-2009

Hour	Thursday						Friday						Saturday					
	Mar-12-2009						Mar-13-2009						Mar-14-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	29	38	31	28	25	23	28	34	30	27	23	21	30	35	32	29	26	25
01:00	28	34	30	27	24	22	25	30	27	25	22	20	29	34	31	28	25	24
02:00	24	34	25	22	20	19	21	27	24	20	18	16	31	37	33	30	27	24
03:00	24	29	26	23	21	19	21	29	24	19	17	15	34	40	37	32	28	25
04:00	30	34	32	29	26	25	19	28	19	17	15	15	33	39	35	32	29	28
05:00	30	41	31	27	25	23	17	21	19	16	15	15	32	38	35	31	27	25
06:00	33	39	36	32	28	26	19	23	20	18	17	16	32	38	34	31	28	26
07:00	31	38	33	30	27	26	22	31	25	20	17	17	35	40	37	35	31	28
08:00	36	43	39	35	31	29	34	48	30	23	20	18	38	46	40	37	35	33
09:00	34	40	37	34	30	28	27	36	30	25	22	20	40	50	42	39	36	34
10:00				34	31	30	32	43	36	28	23	21	42	56	40	35	32	30
11:00	35	43	38	33	30	29	35	47	38	29	24	22	35	44	38	33	31	29
12:00	36	47	39	33	30	29	36	47	38	31	26	24	35	40	36	33	31	30
13:00	37	47	41	33	30	29	45	60	43	35	30	26	35	43	37	33	31	29
14:00	34	45	36	31	29	28	39	49	42	35	30	27	40	51	41	35	32	29
15:00	36	46	38	33	31	30	32	43	35	28	23	21	39	50	39	34	32	30
16:00	37	49	39	32	30	29	34	46	34	29	27	22	41	53	42	34	31	29
17:00	35	44	37	31	28	28	31	40	34	29	25	23	41	51	44	36	32	30
18:00	37	47	39	33	30	28	36	38	32	26	23	22	45	59	42	35	31	29
19:00	40	48	43	38	35	32	30	40	33	28	26	24	49	58	42	34	29	27
20:00	41	49	44	40	36	34	31	40	32	28	26	25	39	44	42	39	35	33
21:00	38	46	40	37	35	33	31	41	33	28	24	22	42	47	44	41	38	37
22:00	36	43	38	34	30	28	29	34	30	28	25	24	40	48	43	38	35	34
23:00	30	40	32	28	25	24	27	33	29	26	24	23	40	49	42	39	35	34
LD, dB(A)	37						36						42					
LN, dB(A)	31						25						35					
DNL, dB(A)	39						36						44					
Lmean, dB(A)	35						35						40					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

15-Mar-2009 Through 17-Mar-2009

Hour	Sunday						Monday						Tuesday					
	Mar-15-2009						Mar-16-2009						Mar-17-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	37	44	40	35	32	29	33	41	35	31	29	26	35	42	37	33	30	27
01:00	37	44	40	36	33	30	33	40	36	32	29	27	32	38	35	31	29	26
02:00	38	46	41	37	34	33	33	38	35	33	30	29	33	42	36	31	27	24
03:00	36	40	38	35	33	31	33	39	36	32	29	27	33	39	36	32	29	27
04:00	39	43	42	39	35	33	33	38	36	32	30	28	35	40	38	34	30	27
05:00	35	40	38	35	31	27	36	44	38	35	32	31	38	42	40	37	34	32
06:00	38	42	40	37	35	33	37	42	38	36	34	32	38	42	40	37	35	33
07:00	40	44	42	40	38	36	37	48	39	35	33	32	39	47	39	37	36	35
08:00	44	49	46	43	40	38	37	43	39	36	34	33	39	43	41	39	36	34
09:00	43	51	45	42	38	36	41	45	43	40	36	34	44	49	45	42	40	39
10:00	45	56	49	41	36	34	37	42	40	36	33	31	45	50	47	43	40	38
11:00	42	50	45	38	33	30	35	44	37	33	30	29	41	49	42	37	33	32
12:00	42	55	43	36	31	29	38	46	41	35	31	29	35	45	37	33	31	29
13:00	56	70	51	39	34	32	37	47	40	33	29	26	36	46	38	32	30	28
14:00	53	65	53	42	36	33	36	47	39	31	27	25	33	42	36	31	28	26
15:00				46	38	34	41	54	42	34	30	27	41	52	44	35	31	28
16:00	47	57	50	42	36	32	47	57	44	36	29	25	47	55	46	37	31	28
17:00	46	58	47	39	34	30	39	52	41	32	26	24	42	52	45	37	31	28
18:00	54	55	46	38	33	31	47	59	49	39	32	28	42	53	44	36	32	27
19:00	43	52	47	39	32	28	44	55	46	37	31	27	44	55	48	37	32	29
20:00	34	47	35	28	23	20	44	53	43	31	24	22	37	50	38	30	26	24
21:00	32	43	35	29	26	24	31	38	32	29	26	24	33	42	35	30	25	24
22:00	33	39	36	32	30	28	34	44	37	32	29	27	33	45	35	29	26	23
23:00	32	37	34	32	29	26	32	38	34	31	27	25	38	52	33	30	28	27
LD, dB(A)	49						42						42					
LN, dB(A)	37						34						35					
DNL, dB(A)	48						43						43					
Lmean, dB(A)	47						40						40					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR004

18-Mar-2009 Through 19-Mar-2009

Hour	Wednesday						Thursday											
	Mar-18-2009						Mar-19-2009											
	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)	Leq dB(A)	Lmax dB(A)	L10 dB(A)	L50 dB(A)	L90 dB(A)	Lmin dB(A)						
00:00	33	41	34	32	29	28	33	42	36	29	26	23						
01:00	37	50	36	33	28	26	38	48	41	34	29	27						
02:00	32	41	34	31	28	25	31	39	34	28	25	24						
03:00	32	37	34	31	28	26	27	33	29	26	24	23						
04:00	35	41	37	34	31	30	25	29	27	25	23	22						
05:00	35	38	36	34	31	30	25	31	27	25	23	22						
06:00	34	38	36	34	31	29	28	36	31	27	23	22						
07:00	36	40	38	36	33	32	31	42	33	27	24	23						
08:00	37	45	40	36	34	32	35	47	35	28	26	25						
09:00	40	55	38	34	31	29	32	42	34	29	27	25						
10:00	45	57	49	39	35	33	36	45	39	33	29	27						
11:00	51	61	54	45	37	33	39	51	41	35	31	29						
12:00	53	63	57	48	41	37	68	53	38	32	29	27						
13:00	54	65	57	48	41	37												
14:00	53	64	57	49	41	37												
15:00	51	61	55	46	39	35												
16:00	52	64	55	46	40	35												
17:00	58	71	58	47	41	36												
18:00	46	56	50	43	38	35												
19:00	40	51	43	35	27	25												
20:00	38	50	42	30	24	22												
21:00	30	38	33	26	23	21												
22:00	37	46	40	33	26	23												
23:00	34	43	37	31	27	26												
LD, dB(A)	51						61											
LN, dB(A)	34						32											
DNL, dB(A)	49																	
Lmean, dB(A)	49						57											
Hours (Day)	15						6											
Hours (Night)	9						7											
Hours (Total)	24						13											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

16-Feb-2009 Through 18-Feb-2009

Hour	Monday						Tuesday						Wednesday					
	Feb-16-2009						Feb-17-2009						Feb-18-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00													43	53	43	39	33	25
01:00													44	55	39	33	28	25
02:00													33	41	36	32	28	26
03:00													35	42	38	33	29	26
04:00													37	43	40	36	30	26
05:00													37	45	41	36	31	29
06:00													49	55	52	40	36	34
07:00													40	46	43	39	35	33
08:00													46	52	45	42	38	36
09:00													58	68	46	40	37	35
10:00													60	71	51	42	37	34
11:00													64	75	55	46	41	37
12:00													60	69	52	43	38	30
13:00													64	73	55	40	31	28
14:00													66	77	55	40	31	28
15:00													67	74	56	37	29	27
16:00													68	78	58	44	31	27
17:00													61	72	55	38	32	29
18:00											48	44	61	73	56	34	29	27
19:00							69	77	59	51	45	42	60	71	51	37	36	35
20:00							54	64	57	47	40	37	58	70	57	41	36	35
21:00							53	62	56	50	43	37	62	71	48	41	36	35
22:00							53	65	49	41	36	32	65	80	56	42	35	35
23:00							61	69	51	37	31	28	65	72	55	47	35	34
LD, dB(A)							64						63					
LN, dB(A)							58						59					
DNL, dB(A)													66					
Lmean, dB(A)							63						62					
Hours (Day)	0						3						15					
Hours (Night)	0						2						9					
Hours (Total)	0						5						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

19-Feb-2009 Through 21-Feb-2009

Hour	Thursday						Friday						Saturday					
	Feb-19-2009						Feb-20-2009						Feb-21-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	61	72	56	39	34	25	65	76	59	46	42	41	69	80	71	63	57	54
01:00	55	61	44	33	31	22	68	79	63	48	42	40	67	81	65	55	50	49
02:00	71	74	47	28	24	22	58	66	48	42	39	37	63	76	59	51	49	48
03:00	52	64	49	30	26	25	51	55	52	50	39	37	60	71	54	48	47	46
04:00	37	42	37	31	28	27	49	52	50	49	48	47	54	62	48	47	46	46
05:00	37	42	40	37	32	29	50	52	51	49	48	48	51	60	48	47	46	46
06:00	50	55	51	42	40	38	50	57	51	49	48	47	50	56	49	48	47	46
07:00	44	48	45	43	42	41	50	53	51	50	49	49	58	71	59	49	48	47
08:00	61	62	51	49	47	44	55	65	53	50	46	43	67	79	64	50	47	46
09:00	61	67	52	47	40	36	67	78	58	46	42	39	72	84	73	61	51	47
10:00	57	68	51	41	36	33	71	83	69	53	45	42	76	87	77	65	59	53
11:00	60	69	49	40	36	34	75	86	73	56	44	40				67	55	47
12:00	69	76	59	43	39	37	73	85	73	55	43	40	77	90	78	67	55	49
13:00	62	76	57	47	39	37	71	84	72	56	46	41	76	89	77	65	54	49
14:00	68	79	63	48	39	36					47	43	76	88	79	68	57	50
15:00	72	81	65	47	38	36	73	85	73	57	47	43	78	90	80	69	59	53
16:00	75	86	74	58	47	37	76	87	75	62	51	46	76	87	79	68	59	53
17:00	72	83	71	54	43	40	76	87	75	63	52	46	78	89	79	69	59	52
18:00	74	81	67	52	44	40	77	89	77	65	56	51	77	88	79	69	61	56
19:00	70	81	68	55	48	43	72	83	74	63	55	50	74	85	75	65	59	55
20:00	75	82	65	54	46	44	75	85	73	62	55	51	72	83	72	65	61	58
21:00	68	79	65	49	44	42	71	82	74	64	59	54	71	81	73	66	62	60
22:00	68	80	68	59	46	42	78	86	75	64	60	59	70	82	73	62	52	50
23:00	66	78	67	56	47	41	73	84	73	64	59	56	70	83	71	58	53	50
LD, dB(A)	70						73						75					
LN, dB(A)	65						70						66					
DNL, dB(A)	72						77						76					
Lmean, dB(A)	69						72						74					
Hours (Day)	15						14						14					
Hours (Night)	9						9						9					
Hours (Total)	24						23						23					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

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NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

22-Feb-2009 Through 24-Feb-2009

Hour	Sunday						Monday						Tuesday					
	Feb-22-2009						Feb-23-2009						Feb-24-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	68	80	69	57	51	49	50	59	52	44	33	29	42	48	45	42	36	31
01:00	67	79	67	56	50	49	50	62	52	43	32	29	40	47	43	38	31	26
02:00	71	83	66	51	49	48	55	67	50	43	29	27	38	47	42	35	27	23
03:00	64	73	58	50	48	48	38	44	42	35	30	27	38	46	42	36	25	20
04:00	58	71	52	49	48	47	42	46	44	42	35	28	42	49	45	40	35	31
05:00	49	50	50	49	47	47	42	46	43	42	41	40	41	47	44	39	34	31
06:00	49	52	48	48	47	47	43	47	45	43	42	35	44	50	47	43	40	38
07:00	57	61	50	48	46	46	36	41	38	35	33	32	44	48	46	43	40	37
08:00	61	73	59	49	46	46	64	59	44	39	36	35	46	51	47	44	41	38
09:00	67	78	67	54	49	45	55	69	49	38	35	34	44	50	46	42	36	34
10:00	73	85	73	59	48	45	53	67	50	39	36	35	44	51	42	36	29	27
11:00	73	83	73	63	57	55	51	62	46	39	36	35	42	52	39	32	29	27
12:00	73	84	75	63	53	49	50	63	49	41	37	34	54	56	38	32	30	28
13:00	75	86	75	61	53	48	63	66	54	41	36	33	46	50	37	32	28	27
14:00	69	81	70	57	48	42				45	36	32	57	69	43	30	26	24
15:00	72	84	73	60	50	44	57	66	52	36	32	30	64	70	42	30	26	24
16:00	69	79	70	56	45	41	56	68	50	34	29	27	62	67	42	28	24	22
17:00	68	81	69	55	46	42	56	64	45	34	29	27	56	66	42	26	23	21
18:00	70	81	68	55	46	42	54	63	49	39	34	32	63	74	49	28	21	19
19:00	62	73	59	53	36	34	47	57	44	39	36	33	41	52	29	22	19	18
20:00	61	72	51	41	33	31	42	50	44	40	36	34	53	59	38	27	23	21
21:00	58	68	57	50	39	36	42	47	44	41	37	34	55	47	38	33	29	26
22:00	49	58	54	38	30	27	41	47	44	40	36	33	50	58	41	37	32	30
23:00	43	54	46	38	30	28	41	48	44	40	34	30	39	46	43	37	32	27
LD, dB(A)	70						57						57					
LN, dB(A)	65						48						43					
DNL, dB(A)	72						58						56					
Lmean, dB(A)	69						55						55					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

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NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

25-Feb-2009 Through 27-Feb-2009

Hour	Wednesday						Thursday						Friday					
	Feb-25-2009						Feb-26-2009						Feb-27-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	38	45	42	37	33	31	41	47	44	40	35	30	23	27	25	22	20	19
01:00	40	48	44	38	30	24	40	46	44	39	34	30	30	40	33	25	21	20
02:00	40	49	43	37	29	25	39	45	42	38	31	27	34	42	32	25	23	22
03:00	39	45	42	37	31	25	37	45	41	33	28	25	32	42	35	29	27	27
04:00	38	43	41	37	32	28	39	47	41	36	32	29	41	48	39	32	27	26
05:00	39	45	42	38	35	32	40	46	43	39	34	32	37	47	41	33	28	25
06:00	41	46	44	41	38	36	40	46	43	39	34	32	33	40	36	31	28	26
07:00	39	44	41	39	37	35	42	51	44	41	37	35	35	43	38	34	31	29
08:00	37	42	40	37	34	33	43	47	45	42	38	36	38	46	42	36	33	31
09:00	40	50	39	35	32	31	47	56	51	45	41	38	36	42	38	34	32	30
10:00	42	56	39	34	32	29	46	57	50	42	37	36	49	48	39	35	32	31
11:00	39	50	38	32	28	27	45	57	47	37	31	28	52	65	46	35	32	31
12:00	54	50	37	30	27	25	51	56	46	34	28	26	49	51	38	35	34	32
13:00	43	55	42	30	28	27	57	64	47	33	28	26	58	63	38	35	33	31
14:00	66	70	47	31	27	25	54	63	47	35	28	26	64	67	41	34	31	29
15:00	44	53	33	28	25	24	58	69	50	41	31	26	63	71	50	37	29	27
16:00	47	58	38	30	27	25					33	27	56	67	50	41	32	29
17:00	61	70	49	32	24	22	61	69	50	40	33	28	62	74	55	45	33	28
18:00	55	66	46	31	25	21	53	60	47	33	24	21	53	60	48	40	34	31
19:00	54	66	44	30	25	22	43	58	36	24	20	19	59	70	62	49	35	32
20:00	61	66	44	37	30	26	29	43	27	21	20	19	62	73	65	57	52	48
21:00	68	68	45	39	35	31	28	40	30	22	20	19	60	71	63	54	47	42
22:00	39	46	42	38	33	29	34	46	36	23	21	19	50	61	53	44	37	34
23:00	39	47	42	38	33	28	27	34	30	25	22	21	36	44	37	33	31	30
LD, dB(A)	60						53						59					
LN, dB(A)	39						39						42					
DNL, dB(A)	58						52						57					
Lmean, dB(A)	58						51						57					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

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NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

28-Feb-2009 Through 02-Mar-2009

Hour	Saturday						Sunday						Monday					
	Feb-28-2009						Mar-01-2009						Mar-02-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	36	45	38	33	30	28	46	57	37	32	29	28	34	40	37	33	29	27
01:00	32	38	35	31	28	27	38	45	37	32	29	28	35	40	37	34	30	28
02:00	37	50	35	32	29	27	38	43	37	34	32	31	37	46	40	33	29	27
03:00	32	40	35	31	28	26	47	55	38	33	31	29	31	37	34	30	26	25
04:00	33	40	35	31	28	27	35	42	37	32	30	28	31	37	33	30	27	23
05:00	31	35	33	30	28	27	40	43	37	33	30	28	36	43	39	34	31	28
06:00	42	50	42	37	32	30	36	42	39	34	29	27	38	43	41	38	34	32
07:00	37	41	39	37	36	35	39	45	41	38	34	29	39	44	42	39	36	34
08:00	40	45	41	38	36	35	42	48	44	39	35	32	39	47	41	38	36	34
09:00	47	56	42	38	36	34	62	63	50	36	32	31	37	42	39	37	34	33
10:00	73	64	51	42	39	38	61	74	60	37	31	28	39	48	39	36	33	32
11:00	66	79	57	44	38	35	67	70	50	34	29	27	38	50	36	32	30	28
12:00	64	71	50	41	37	33	68	80	60	40	31	28	35	47	31	27	25	23
13:00	68	77	54	44	39	35					40	36	48	55	33	26	24	23
14:00	68	80	59	47	41	39					40	34	48	56	35	25	22	20
15:00	66	77	55	44	37	33	74	86	66	49	37	34	49	58	38	26	22	21
16:00	61	72	55	41	35	32	70	83	67	50	40	35	45	52	37	24	20	19
17:00	57	68	51	39	32	29	74	85	68	50	39	36	50	55	43	33	28	26
18:00	56	66	49	39	31	27	62	74	62	46	37	34	42	51	39	29	26	24
19:00	39	51	34	26	23	22	60	68	53	39	34	31	42	52	43	34	30	28
20:00	45	48	34	31	27	26	38	43	40	37	34	32	37	47	40	35	32	30
21:00	43	57	37	33	31	30	37	43	40	36	33	31	43	55	42	36	32	31
22:00	49	59	37	33	31	30	39	46	42	37	32	27	41	52	43	36	32	29
23:00	46	50	35	32	30	28	41	48	45	38	32	27	44	57	41	35	32	30
LD, dB(A)	65						68						44					
LN, dB(A)	42						42						38					
DNL, dB(A)	63						66						46					
Lmean, dB(A)	63						65						43					
Hours (Day)	15						13						15					
Hours (Night)	9						9						9					
Hours (Total)	24						22						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

03-Mar-2009 Through 05-Mar-2009

Hour	Tuesday						Wednesday						Thursday					
	Mar-03-2009						Mar-04-2009						Mar-05-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	65	69	46	35	30	27	40	46	43	38	35	32	39	45	42	38	34	30
01:00	64	71	50	36	33	30	39	46	43	38	32	29	40	47	43	39	34	32
02:00	59	65	47	41	33	29	39	45	42	37	29	26	37	43	40	36	31	29
03:00	42	51	45	36	28	25	39	45	43	38	31	28	37	44	40	35	32	27
04:00	43	50	47	42	37	34	38	44	41	37	34	30	42	49	46	41	36	33
05:00	42	48	46	41	37	36	38	44	41	37	33	29	42	46	44	41	37	35
06:00	41	47	44	39	36	34	41	46	44	40	36	32	41	45	43	41	38	34
07:00	41	47	44	40	36	34	42	46	43	41	39	37	43	47	46	43	40	38
08:00	44	50	47	43	40	38	46	52	48	45	41	39	45	53	46	43	41	40
09:00	45	50	47	44	41	38	43	51	45	41	39	37	57	67	61	52	44	41
10:00	48	57	49	44	41	39				39	36	33	63	72	67	59	52	48
11:00	48	49	45	41	37	35	36	45	38	35	32	29	65	75	69	60	52	48
12:00	40	45	40	37	33	32	52	60	50	39	34	31	65	74	69	61	53	48
13:00	48	49	34	30	26	23	54	62	56	47	39	35	65	74	69	60	53	47
14:00	66	66	47	32	26	24	57	67	59	50	43	38	66	75	69	61	53	47
15:00	61	67	47	33	27	22	65	72	63	54	47	42	63	73	67	59	53	49
16:00	57	69	46	33	27	24	68	75	59	48	41	38	63	73	67	59	52	47
17:00	45	55	42	35	31	29	64	71	55	45	39	36	59	70	63	54	47	44
18:00	48	57	47	40	35	31	67	68	49	40	36	33	55	65	58	50	43	40
19:00	43	51	46	40	36	34	45	56	40	37	34	32	48	58	51	44	40	38
20:00	40	47	43	38	34	32	42	49	43	39	35	32	47	55	50	44	41	39
21:00	37	42	39	35	33	31	41	46	44	40	36	33	65	66	54	48	44	41
22:00	39	47	42	37	33	30	38	44	41	37	34	32	67	71	52	43	37	34
23:00	38	43	40	36	32	28	38	44	42	37	33	28	38	45	41	37	33	30
LD, dB(A)	56						61						62					
LN, dB(A)	59						39						57					
DNL, dB(A)	65						59						65					
Lmean, dB(A)	57						59						61					
Hours (Day)	15						14						15					
Hours (Night)	9						9						9					
Hours (Total)	24						23						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

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Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

06-Mar-2009 Through 08-Mar-2009

Hour	Friday						Saturday						Sunday					
	Mar-06-2009						Mar-07-2009						Mar-08-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	38	45	40	36	31	26	49	52	51	49	46	33						
01:00	37	43	41	36	29	25	50	55	51	49	47	45						
02:00	37	44	41	34	29	26	49	55	50	48	47	45						
03:00	34	41	37	33	28	25	49	52	50	48	47	45						
04:00	39	45	42	38	34	31	49	55	50	48	47	46						
05:00	42	48	45	41	36	30	48	52	49	48	47	46						
06:00	42	47	44	41	36	32	48	50	49	48	47	46						
07:00	45	51	40	36	34	32	49	51	50	49	48	47						
08:00	41	50	44	38	36	34	53	54	51	49	46	43						
09:00	42	49	45	40	37	35	52	55	47	44	41	39					37	35
10:00	46	48	45	40	36	34							65	76	52	39	34	32
11:00	37	45	41	35	30	24							59	69	50	37	32	29
12:00	31	38	34	28	25	24							65	75	57	39	34	31
13:00	37	50	38	32	28	25							64	77	62	44	36	33
14:00	63	71	39	29	25	23							69	83	64	45	36	33
15:00	60	70	48	34	25	23							70	82	67	47	38	33
16:00	55	68	47	35	30	25							69	82	65	47	38	34
17:00	68	77	54	36	30	27							67	80	66	53	44	40
18:00	46	50	48	40	35	33							68	79	62	52	44	40
19:00	48	51	49	48	46	46							64	72	56	44	36	33
20:00	48	51	49	47	46	45							44	54	42	37	35	33
21:00	49	53	50	48	46	44							52	64	51	43	39	36
22:00	49	54	51	48	47	45							52	61	50	44	41	38
23:00	50	55	51	49	47	45							44	53	48	41	37	34
LD, dB(A)	58						52						66					
LN, dB(A)	44						49						49					
DNL, dB(A)	57																	
Lmean, dB(A)	56						50						65					
Hours (Day)	15						3						12					
Hours (Night)	9						7						2					
Hours (Total)	24						10						14					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

09-Mar-2009 Through 11-Mar-2009

Hour	Monday						Tuesday						Wednesday					
	Mar-09-2009						Mar-10-2009						Mar-11-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	43	51	46	41	37	35	38	43	40	37	32	30	35	47	38	29	24	22
01:00	41	50	45	39	34	31	41	48	45	39	35	31	26	37	25	23	22	21
02:00	38	51	40	33	27	24	41	53	43	37	29	25	24	27	25	23	22	22
03:00	34	42	37	32	24	20	39	47	42	37	32	29	24	26	24	23	22	21
04:00	41	51	45	37	32	29	43	51	46	41	37	34	26	34	28	24	22	21
05:00	49	59	52	44	38	35	41	47	44	40	37	35	25	31	27	24	23	22
06:00	42	49	45	41	38	35	42	47	45	42	39	37	30	38	33	28	24	23
07:00	42	50	44	41	39	37	46	54	49	44	40	39	31	38	33	29	26	24
08:00	43	49	44	42	40	38	45	52	47	44	42	40	36	41	39	35	32	29
09:00	45	52	46	43	41	40	55	66	58	49	44	42	31	40	35	27	24	24
10:00	49	58	52	44	40	38	61	71	64	56	50	46	40	51	43	34	28	26
11:00	54	64	57	49	43	39	65	75	69	60	52	48	42	52	46	37	30	28
12:00	55	64	58	51	45	41	67	76	71	63	55	51	41	52	45	35	28	26
13:00	60	71	64	56	49	46	64	73	68	60	53	48	45	53	47	35	26	24
14:00	62	72	66	58	52	47	59	70	63	54	46	41	48	54	47	36	28	24
15:00	63	72	67	58	52	49	62	70	61	52	42	38	42	52	46	35	28	25
16:00	59	69	63	55	50	47	58	69	62	54	46	42	42	52	46	37	29	26
17:00	56	66	60	53	46	42	58	68	61	53	46	42	45	54	47	38	29	25
18:00	58	68	60	52	46	42	57	66	61	53	46	42	44	54	49	40	32	28
19:00	54	62	55	48	43	40	56	67	59	50	42	36	40	52	43	30	23	21
20:00	46	55	50	43	39	38	74	63	54	46	38	33	24	33	28	21	19	17
21:00	43	49	44	40	37	35	48	57	49	40	33	29	24	35	26	19	17	17
22:00	43	46	42	39	36	33	43	52	45	35	26	24	21	32	22	19	18	17
23:00	41	45	43	41	38	36	38	49	42	32	25	23	26	37	28	22	18	17
LD, dB(A)	57						65						42					
LN, dB(A)	43						41						29					
DNL, dB(A)	56						63						41					
Lmean, dB(A)	55						63						40					
Hours (Day)	15						15						15					
Hours (Night)	9						9						9					
Hours (Total)	24						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

12-Mar-2009 Through 14-Mar-2009

Hour	Thursday						Friday						Saturday					
	Mar-12-2009						Mar-13-2009						Mar-14-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	25	37	26	22	20	19	31	41	35	26	22	20	37	46	37	33	28	25
01:00	25	32	25	22	20	19	28	39	30	24	20	17	36	44	40	34	30	28
02:00	23	35	25	20	18	18	22	30	25	20	18	16	38	44	41	37	31	25
03:00	23	31	25	21	19	18	22	31	24	18	17	16	37	44	41	36	30	27
04:00	28	33	30	27	24	23	19	28	21	17	16	16	38	45	40	35	31	27
05:00	30	42	31	25	23	22	18	24	19	17	16	16	36	41	37	34	30	27
06:00	31	38	34	30	27	25	24	34	28	20	18	17	38	44	41	37	33	29
07:00	34	40	36	32	29	26	28	38	31	23	19	18	42	48	45	42	37	33
08:00	36	45	39	35	31	29	35	49	32	24	20	19	45	53	47	44	41	38
09:00				33	30	28	54	53	38	29	24	22	45	50	45	43	40	39
10:00	35	44	37	32	30	28	54	50	43	34	27	24	62	69	43	39	37	35
11:00	45	50	39	34	31	29	46	49	41	31	26	23	43	54	41	38	36	34
12:00	53	58	41	33	30	28	58	60	41	32	27	25	37	41	39	37	35	33
13:00	51	55	39	32	30	28	61	61	48	38	30	27	46	56	41	37	35	33
14:00	36	47	37	32	29	28	43	52	48	38	30	27	53	61	43	37	34	32
15:00	42	46	38	33	31	30	54	61	43	31	25	23	63	72	48	36	34	31
16:00	58	60	42	32	30	29	34	43	34	27	25	24	59	70	52	37	34	31
17:00	42	52	40	32	29	28	30	40	33	27	24	23	67	76	49	38	35	33
18:00	44	57	42	33	29	27	31	37	35	29	25	23	60	69	44	37	34	32
19:00	58	69	53	41	35	31	46	49	39	35	32	29	66	63	44	38	34	30
20:00	47	58	50	38	31	30	36	43	39	35	31	28	42	47	44	40	37	34
21:00	40	50	43	36	32	31	44	45	35	29	27	25	51	61	47	43	39	37
22:00	40	51	44	34	28	25	35	39	37	34	31	28	43	49	46	42	39	37
23:00	34	45	38	28	24	22	34	40	37	33	28	25	42	48	45	40	37	33
LD, dB(A)	51						53						60					
LN, dB(A)	33						29						39					
DNL, dB(A)	49						51						58					
Lmean, dB(A)	49						51						58					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreation Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

15-Mar-2009 Through 17-Mar-2009

Hour	Sunday						Monday						Tuesday					
	Mar-15-2009						Mar-16-2009						Mar-17-2009					
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
00:00	40	50	42	37	32	28	44	48	45	40	34	30	47	59	50	42	35	32
01:00	42	50	43	38	33	28	41	48	45	38	30	26	41	46	41	35	30	27
02:00	46	49	44	38	34	32	38	45	41	36	30	27	42	45	40	35	29	24
03:00	40	43	39	36	32	30	38	44	41	36	30	27	40	48	44	38	33	28
04:00	41	49	43	38	35	33	40	46	43	39	35	33	44	49	47	43	39	36
05:00	42	51	41	36	33	28	51	52	44	40	37	35	44	51	47	43	40	38
06:00	42	50	45	40	36	33	43	49	45	41	38	36	45	51	46	43	40	37
07:00	41	51	43	40	37	35	45	50	46	43	40	38	45	52	48	44	40	37
08:00	46	52	48	44	42	40	44	48	46	43	41	39	45	50	46	43	40	39
09:00	54	58	46	43	39	38	53	55	49	45	42	39	50	53	48	46	43	41
10:00	61	66	51	43	39	37	47	54	42	38	36	34	66	72	50	41	37	35
11:00	57	64	50	41	37	35	66	70	43	36	34	33	65	73	54	39	34	32
12:00	64	77	55	41	36	33	69	79	64	50	37	34	65	78	52	36	33	31
13:00	69	77	57	41	36	34	70	79	53	38	30	28	65	73	55	35	31	29
14:00				49	39	35	68	78	61	41	32	26	70	80	58	37	31	29
15:00	74	83	67	49	41	38	69	81	61	41	36	33	63	75	57	41	34	30
16:00	72	79	63	47	38	36	72	84	66	47	37	34	62	70	55	42	34	32
17:00	72	83	65	48	38	31	69	81	62	41	33	29	60	72	53	39	34	31
18:00	69	83	62	43	35	31	73	82	65	42	33	29	63	70	51	39	33	31
19:00	69	80	65	47	36	32	66	77	57	41	33	29	60	69	52	38	33	30
20:00	62	65	48	37	33	30	69	75	52	37	33	30	53	61	44	38	32	28
21:00	49	54	42	37	33	27	52	61	48	41	38	36	61	74	49	39	34	30
22:00	41	47	42	39	33	28	58	63	51	42	38	35	66	76	56	39	33	30
23:00	47	49	45	41	36	33	49	60	47	41	38	36	49	57	44	40	35	32
LD, dB(A)	68						68						63					
LN, dB(A)	43						50						56					
DNL, dB(A)	66						66						65					
Lmean, dB(A)	66						66						62					
Hours (Day)	14						15						15					
Hours (Night)	9						9						9					
Hours (Total)	23						24						24					

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.

February 2011

Prepared for National Park Service

NPS Lake Meredith Recreational Area Acoustic Conditions Report

A-Weighted Sound Levels at: LAMR005

18-Mar-2009 Through 19-Mar-2009

Hour	Wednesday						Thursday											
	Mar-18-2009						Mar-19-2009											
	Leq	Lmax	L10	L50	L90	Lmin	Leq	Lmax	L10	L50	L90	Lmin						
	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)						
00:00	50	58	45	40	34	29	40	50	43	31	25	23						
01:00	49	60	44	38	34	29	40	51	43	34	28	25						
02:00	41	47	43	39	34	30	37	50	38	29	25	24						
03:00	39	45	42	38	34	28	31	41	34	28	25	24						
04:00	41	47	44	39	35	33	31	40	33	27	24	23						
05:00	40	45	42	39	35	33	26	31	28	25	23	22						
06:00	43	47	45	43	38	33	29	39	32	27	25	23						
07:00	45	49	46	43	41	39	32	42	34	29	27	25						
08:00	45	51	46	42	40	38	43	50	42	41	29	27						
09:00	43	53	45	41	36	33	43	50	45	41	40	39						
10:00	63	73	54	42	36	34	44	53	48	41	33	28						
11:00	51	60	53	46	38	35	58	61	45	34	29	27						
12:00	67	79	61	50	42	39					32	29						
13:00	65	76	61	51	44	39												
14:00	62	72	60	50	42	38												
15:00	70	76	60	51	45	41												
16:00	71	78	62	53	46	40												
17:00	65	78	62	53	44	39												
18:00	71	78	60	50	43	39												
19:00	61	75	56	46	35	30												
20:00	57	67	47	40	32	27												
21:00	53	63	45	41	29	26												
22:00	48	54	48	42	31	27												
23:00	48	54	48	39	31	27												
LD, dB(A)	65						51											
LN, dB(A)	46						36											
DNL, dB(A)	63																	
Lmean, dB(A)	63						48											
Hours (Day)	15						5											
Hours (Night)	9						7											
Hours (Total)	24						12											

Leq, dB(A): Hourly Average A-Weighted Sound Level, in decibels.

NOTES: Grey Boxes indicate partial or missing hours when the monitor was not running.

Lmax, dB(A): Hourly Maximum A-Weighted Sound Level, in decibels.

Lmin, dB(A): Hourly Minimum A-weighted Sound Level, in decibels.

L10, dB(A): Hourly A-weighted Sound Level Exceeded 10 Percent of the Time, in decibels.

L50, dB(A): Hourly A-weighted Sound Level Exceeded 50 Percent of the Time, in decibels.

L90, dB(A): Hourly A-weighted Sound Level Exceeded 90 Percent of the Time, in decibels.

LD, dB(A): Daytime Average A-Weighted Sound Level, in decibels (07:00-22:00).

LN, dB(A): Nighttime Average A-Weighted Sound Level, in decibels (00:00-07:00 and 22:00-24:00).

DNL, dB(A): Day-Night Average A-Weighted Sound Level, in decibels.

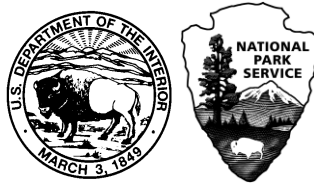
Lmean, dB(A): Average (over Total Hours) A-Weighted Sound Level, in decibels.



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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historic places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of the Take Pride in America campaign by encouraging stewardship and citizen responsibility for the public lands and promoting citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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