Figure 3-6. Estimated M-16 Blank Noise Levels at Various Distances

<table>
<thead>
<tr>
<th>Distance (m)</th>
<th>ASEL (dBA)</th>
<th>$L_{\max}$ (dBA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>54</td>
<td>63</td>
</tr>
<tr>
<td>400</td>
<td>40</td>
<td>49</td>
</tr>
<tr>
<td>800</td>
<td>32</td>
<td>41</td>
</tr>
<tr>
<td>1,600</td>
<td>22</td>
<td>31</td>
</tr>
</tbody>
</table>

January 2016
Source: Department of Veterans Affairs, Balance Environmental, ESRI Basemap 2015
3.10 Utilities

3.10.1 Existing Conditions

The site is currently undeveloped; thus, there are no utilities servicing the site. Based on the final MP5 design, utilities that would be required during the construction and operation of the National Cemetery include domestic water, fire protection service water, irrigation water, sanitary sewer/septic system, stormwater, electricity, natural gas/propane, and telecommunication.

3.10.1.1 Water

Domestic water is currently unavailable at the site. Until domestic water service is made available, on-site water wells are required to accommodate facilities at the site. Per the *Irrigation Water Source Study Report*, WWSD has exclusive rights to provide water and sanitation services for the National Cemetery.

The site overlays, and is adjacent to, the Jimmy Camp Creek Alluvium. Multiple entities in the Colorado Springs area use the Jimmy Camp Creek Alluvium as a water source. WWSD already has wells in this area, and has a water augmentation plan in place with the State of Colorado. Since a water augmentation plan is in place, the installation of the new well will not need Water Court adjudication and can be handled via an administrative change. According to WWSD, wells in the Jimmy Camp Creek Alluvium produce in the range of 120 to 180 gallons per minute, at a depth of approximately 50 feet.

3.10.1.2 Sanitary Sewer

Sanitary sewer service is currently unavailable at the site. CSU supplies sanitary sewer service to the site area. Sanitary sewer service is anticipated at the site in the future; however, the timeframe is currently unknown. Until sanitary sewer service is made available, on-site septic systems are required to accommodate facilities at the site.

3.10.1.3 Electricity

Electrical service is currently unavailable at the site. A utility corridor that includes overhead electric lines is located along the eastern boundary of the site. MVEA would provide electrical service to the site via an extension from the utility corridor located along the eastern boundary. Electricity would be routed from the overhead lines located in the utility corridor to an underground system at the site.

3.10.1.4 Natural Gas

Natural gas is currently unavailable at the site. There is an existing gas service on Bradley Road (located to the south of the site) (VA 2012). In addition, there is a utility corridor that includes a natural gas pipeline located along the eastern boundary of the site. CSU supplies natural gas service to the site area. CSU’s nearest natural gas distribution line is located approximately two miles away. Due to the distance from CSU’s nearest natural gas distribution line to the site, extension of the natural gas line is currently economically infeasible. Future construction in the area may extend natural gas service to the site. Until natural gas service is made available, propane may be used as a fuel source at the site.
3.10.1.5 Telecommunications

Telecommunication services are currently available to the site area. CenturyLink currently provides copper and fiber services along Drennan Road, located north of the site. Telecommunication requirements needed at the site include Internet, telephone, and television. A conduit would be extended from the service located on Drennan Road (north of the site) to the site.

3.10.2 Effects of the Preferred Alternative

The Preferred Action would have negligible to minor adverse impacts on utilities. All major utility services (i.e., water, sanitary sewer, electricity, natural gas, and telecommunications) are available immediately next to, or in close proximity to, the site, as described. Utilities are available and are supplied by local service providers.

The Preferred Action would have negligible short-term adverse impacts on water availability. Domestic water service to the site would be provided by on-site wells and pumped to each facility. Based on the final MP5 design, domestic water usage is estimated to be approximately 900 gallons per day for all facilities. The VA would be responsible for any water treatment, and for delivering the water to the site. The required discharge pressure of the pumps would need to be coordinated with WWSD. The primary water usage for the facilities will be restrooms. Capacity exists to exceed projected water demands beyond the Phase 1 development.

The Preferred Alternative would require large volumes of irrigation water to maintain landscaped areas and the cemetery grounds. Phase 1 development is estimated to include 27.5 irrigated acres. The estimated watering needs for this area is 186,500 GPD at peak season and 35.8 MG annually. At the completion of Phases 1 through 3, which accounts for approximately 36.4 irrigated acres, the peak season daily water use is estimated to be 246,800 GPD, with an annual water use of 47.4 MG. Irrigation ponds would be designed to store three to four days of usable water for onsite irrigation, supplementing flows from the Jimmy Camp Creek alluvium to meet peak irrigation demands. The final design includes a central control system that would utilize field satellites, weather stations, and soil moisture systems to maintain the cemetery to VA standards while minimizing water used for irrigation. According to the MP5 report, in as few as five years, water may be piped in from Big Johnson Reservoir, which has excess capacity and a quality of water better suited for irrigation (AES Group, Inc. 2015). Therefore, the Preferred Alternative would be expected to have no impact on local water availability due to irrigation demands.

The Preferred Alternative is estimated to require sanitary sewer services for 240 planned visitors per day using approximately 2 gallons of sanitary sewer capacity. Because extension of the sanitary sewer system in the site area is currently not practical, a septic system would support each facility onsite. The facility septic systems would be designed to provide excess capacity, with each of the maintenance, honor guard, and administration/PIC facilities supporting up to 330 visitors per day. Public bathrooms would be closed and portable toilets would be brought in to handle the increased sanitary sewer demand during major holidays, such as Memorial Day. Due to the generation of soap and oil at the vehicle maintenance bay, an independent system would be installed to accommodate discharge from the vehicle maintenance bay; therefore, septic systems are proposed to accommodate discharge. Future development in the site area may make extension of the sanitary sewer system to the site area practical. Extension of the sanitary sewer system to the site would require crossing Jimmy Camp Creek, which, in turn, would require that the proposed sewer be open-trench constructed, bored under the Jimmy Camp Creek, or
attached to the existing bridge. Under such a contingency, a separate environmental assessment would analyze the impacts of public sanitary sewer extension.

Based on the final MP5 design, electrical needs at the site would require a standard amount of power from MVEA. Current designs include anticipated provision of 7,200 volt/12,470 three-phase primary electrical service through MVEA, which has ample capacity to supply service to the site. Therefore, no adverse impacts to electrical utilities would be anticipated from the Preferred Alternative. Power would be required for the new buildings including the administrative building, maintenance building, irrigation pump house, committal service shelters, and honor guard building. The administrative and maintenance buildings would have a diesel-driven standby generator to provide an alternate source of power, in the event that normal power is lost. Life safety systems, for the buildings that do not have a diesel generator, would have either battery packs or lighting inverters to provide an alternate source of power, in the event that normal power is lost. Existing overhead electrical towers within the Drennan Road right-of-way (located north of the site) would not be affected by the Preferred Alternative. New electric lines would cross the existing utilities within the Drennan Road right-of-way at required separation distances.

The Preferred Alternative would have minimal needs for natural gas. Natural gas would likely be used for heating and domestic hot water production at the site. As mentioned, natural gas is available in the site area; however, extension of the natural gas line is currently economically infeasible. Until natural gas service is made available, propane may be used as a fuel source at the site. Existing high-pressure gas lines within the Drennan Road right-of-way (located north of the site) would not be affected by the Preferred Alternative. New gas lines would cross the existing utilities within the Drennan Road right-of-way at required separation distances.

The Preferred Alternative would have normal needs for telecommunications service. Phone, television, and data service would likely be provided to the administrative/PIC, maintenance, and honor guard building at the site. A security system would also be installed that might include closed-circuit cameras, intrusion detection, and electronic card readers. As mentioned, telecommunications are readily available in the area and are likely to be adequate for the Preferred Alternative. Therefore, no impacts associated with telecommunications service would be expected.

3.10.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by the VA would occur. Therefore, no effects on utilities would be anticipated and the purpose of, and need for, a National Cemetery would not be satisfied.

3.10.4 Minimization/Management Measures

In an effort to maintain potential effects on utilities at acceptable levels, design plans would be submitted to each available utility provider to determine specific connection requirements and to implement these requirements. Since the Preferred Alternative would not present any significant adverse effects on utilities, specific minimization measures would not be required.
3.11 Transportation and Parking

3.11.1 Existing Conditions

No paved roads, public transportation, or permanent access to the site currently exist. There is one roadway, Drennan Road, bordering the site. Drennan Road is a two-lane, east-west-oriented road that is adjacent to the northern boundary of the property, and that has a current estimated Level of Service (LOS) rating of B. No LOS information was provided by the Colorado Department of Transportation or El Paso County; LOS ratings are estimates based on site observations. Drennan Road is the only roadway that borders the site. Under current conditions, Drennan Road operates at, or above, acceptable LOS ratings, mainly due to the lack of development in the vicinity of the site.

Drennan Road has a posted speed limit of 50 miles per hour (mph) and the current road geometry that provides ample sight distance. Traffic count data collected between 1996 and 2009 was available from El Paso County. These counts show an average daily trip (ADT) in both directions of approximately 1,545. Peak traffic counts were also available from El Paso County from a corridor preservation plan that was developed for Marksheffel Road in 2013. As part of this study, turning movement counts were conducted at Drennan Road. These counts showed a peak hour count of 195 in both directions.

3.11.2 Effects of the Preferred Alternative

The Preferred Action would have negligible, short-term and long-term adverse impacts on transportation. Construction and operation of the project site by the VA would produce no direct parking effects, mostly because the design has accounted for sufficient parking during the operational phase. Construction of Phase 1A and B is expected to take between 18 and 24 months; however, Phase 1A is expected to be completed within 8 months. There would be a total of 92 parking spaces at project completion to accommodate visitors and staff, with additional parallel parking in designated areas. Construction traffic, consisting of trucks, workers’ personal vehicles, and construction equipment, would increase traffic volumes in the local area, and could cause minor delays if this occurred during morning and evening peak periods. Installation and connection of utilities, located within or adjacent roadways, could also affect local roadways. Preliminary consultation with El Paso County indicated that Phase 1 construction and operational activities are not likely to affect traffic in the immediate vicinity of the project site. Thus, only negligible effects would be anticipated during and following Phase 1 construction and operational activities.

Normal cemetery operations would not generate significant traffic. Typically, employee traffic would be expected to result in 10 to 15 vehicles per day. Interments and other occasional special events could generate larger numbers of vehicles, of up to 20 cars per event, with an expected maximum of three to five interments per day, but the road system would be capable of handling the increased traffic. On-site employee and visitor parking would be provided. Although traffic is expected to increase slightly for interment services, based on area zoning and future development, it is anticipated that there would be minimal impacts on roadways and LOS.

Under Phase 1 of the Preferred Alternative, there would be minor repairs and roadway improvements along the project frontage on Drennan Road. An additional turning lane at Drennan Road was also analyzed, but it was determined that it is not necessary for Phase 1A or 1B (Day 2016a). However, a turning lane may be included in future phases for the proposed cemetery.
3.11.3 Effects of the No Action Alternative

Under the No Action Alternative, no construction by the VA would occur, no effects to transportation or parking would be anticipated.

3.11.4 Minimization/Management Measures

Since the Proposed Action would not present any significant adverse effects on transportation and parking, no project-specific minimization measures are required. Implementing BMPs to reduce transportation effects would further minimize the potential effects to local roadways. As part of the Preferred Alternative, transportation effects would be maintained at acceptable levels through implementation of the following BMPs:

- Coordinate with local officials and the Colorado Department of Transportation (CDOT) to ensure that construction and operational traffic are considered in the planning of future transportation improvements in this vicinity.
- Coordinate with CDOT to identify and implement roadway improvements, as necessary, such as turn lanes signalization.
- Prevent deposit of debris and soil on local roadways during the construction period.
- Plan construction activities to limit the effects to traffic flow on local roadways; time construction activities to avoid peak travel hours.

Implementation of these BMPs would ensure that transportation effects are maintained at less than significant levels by properly controlling and limiting effects on local traffic and transportation infrastructure during construction and operation.

3.12 Cumulative Effects

As defined by CEQ Regulations in 40 CFR 1508.7, cumulative impacts are those which “result from the incremental impact of the Preferred Alternative when added to other past, present, and reasonably foreseeable future actions, without regard to the agency (federal or nonfederal) or individual who undertakes such other actions.”

Cumulative impact analysis captures the effects that result from the Preferred Alternative in combination with the effects of other actions taken during the duration of the Preferred Alternative in the same geographic area. Because of extensive influences of multiple forces, cumulative effects are the most difficult to analyze.

NEPA requires the analysis of cumulative environmental effects of a Preferred Alternative, or set of actions, on resources that might often be manifested only at the cumulative level, such as traffic congestion, air quality, noise, biological resources, cultural resources, socioeconomic conditions, utility system capacities, and others.
3.12.1 Considered Cumulative Actions

As discussed throughout the VA’s 2012 Final PEA and Sections 2 and 3 of this SEA, the Proposed Action would retain many of the current features at the site, while preserving natural resources and open space through environmentally sensitive development. Overall, no significant adverse cumulative effects on the environment, induced by changes by the Proposed Action, are anticipated within the ROI.

As the population has grown in El Paso County, land development has increased, generally concentrated in a linear, north-south direction east of the Front Range along Interstate 25, with the majority of the housing and the employment growth occurring within the limits of the City of Colorado Springs. Overall, the land development pattern in the unincorporated El Paso County is dominated by residential uses (El Paso County 1995).

Since the mid-1970, El Paso County’s comprehensive planning efforts have been focused through identified sub-areas of the unincorporated county. These sub-areas have comprehensive plans, known as small-area plans, which are incorporated into the county’s master plan. The new VA National Cemetery site is located within the Highway 94 sub-area; the 2003 Highway 94 Comprehensive Plan is the official policy document guiding long-range planning and community development in the Highway 94 planning area. It provides a basis for zoning and subdivision regulations, and provides guidance for property owners, residents, and decision makers regarding land use.

The project site is located within the approximately 18,000 acre Banning Lewis Ranch Master Plan area. Expansion adjacent to the project site property is expected to include low density residential communities for the adjoining properties to the north, west, and south. Improvements to Marksheffel Road between U.S. Route 24 and Link Road, located within two miles of the proposed site’s western boundary, are expected to expand transportation capacity in anticipation of future development. Other projected land uses within the Highway 94 planning area include research and development and institutional land uses on the west side of Marksheffel Boulevard between Drennan Road and Bradley Road, in conformance with the Highway 94 sub-area plan (El Paso County 2015). The proposed establishment and operation of a National Cemetery in this area would not significantly contribute to or increase any of the aesthetic, land use, socioeconomic, or other resource effects potentially associated with the realization of the Banning Lewis Master Plan.

3.12.2 Effects of Cumulative Actions on the Preferred Alternative

The Preferred Alternative would result in the effects identified throughout Section 3 and in the Final PEA. These include potential negligible-to-minor adverse effects to aesthetics (short- and long-term), air quality (short- and long-term), cultural resources (long-term), geology and soils (short- and long-term), hydrology and water quality (short- and long-term), wildlife and habitat (short- and long-term), noise (short- and long-term), wetlands and floodplains (short- and long-term), utilities (short-term), and transportation and parking (short- and long-term). All of these effects would be further reduced through careful coordination and implementation of general BMPs, management measures, and compliance with regulatory requirements, as identified throughout Section 3 and in the Final PEA. No adverse effects on land use, socioeconomic, community services, utilities, or environmental justice would occur. As such, no cumulative adverse effects on any of these resource areas are anticipated. Cumulative net beneficial effects on land use and the local socioeconomic environment would be realized.
In the context of anticipated regional and local growth, the Preferred Alternative would be expected to contribute to negligible adverse cumulative effects as they pertain to traffic congestion, noise, and utilities. Increased residential and commercial development in the vicinity of the site would result in commensurate increases in ambient noise and demand for transportation and utility resources. For the most part, the local area is in the early stages of converting from ranch/agricultural uses to more intensive land uses. The regional growth context would be further analyzed with each phase of the cemetery development, with specific analysis of cumulative impacts associated with concurrent growth on- and off-site.

The Preferred Alternative would not noticeably contribute to on-site and regional decline in natural resources, and would maintain or enhance the local socioeconomic environment through indirect, beneficial effects. If the VA moves forward with plans to use an on-site groundwater well to support irrigation needs, it is possible that the local groundwater table would be lowered over time; however, based on the desired flow rate for the well and the availability of groundwater in the area, the drawdown would be limited to the property and would not contribute to any local or regional decline in groundwater resources. If the VA uses potable water from the city to support irrigation operations at the site, the VA's demand for potable water, in combination with the increased demand resulting from other projects in the area, would contribute to increased stress on the TWU's network of groundwater wells that supplies potable water to the area.

Visitors and VA employees who drive to the National Cemetery would contribute to an overall increase in traffic in the area of the site; however, the increased traffic volume, when considered with other planned and potential developments in the area, would be adequately handled by the existing public roadways in the vicinity of the proposed National Cemetery through Phase 1 of the Proposed Action. Subsequent phases, each of which could induce additional traffic demands in the vicinity of the site, will be subject to individual environmental analyses. Potential impacts to traffic would be considered at each stage and transportation improvements would be considered and, if necessary, recommended within the context of contemporaneous local traffic demands.

No cumulative beneficial or adverse impacts are expected from the Phase 1 construction and operation of the new VA National Cemetery at the proposed site. Close coordination between the agencies listed in Section 4.1.2 and Section 10 of this SEA, coupled with enforcement of applicable, current and future regulations, ordinances, and laws (see Section 11), would serve to manage and control cumulative effects within the ROI, including managing regional transportation increases with adequate infrastructure. Implementation of land use and resource management plans would serve to control the extent of environmental effects, and proper planning would ensure that future socioeconomic conditions maintain, if not improve, the local standard of living in accordance with the El Paso County and Highway 94 Comprehensive Plan. Implementation of effective resource management plans and programs should minimize or eliminate any potential cumulative degradation of the natural ecosystem and cultural resources within the ROI.

3.12.3 Effects of Cumulative Action under the No Action Alternative

Under the No Action Alternative, the new VA National Cemetery in southern Colorado would not be developed, and would not meet veterans’ burial needs in the region. The VA would not be able to provide veterans in southern Colorado with a suitable, relatively local National Cemetery for proper burial. These veterans would be required to use another National Cemetery, if available, or another burial option. Due to the speculative nature of proposed future site development under the No Action Alternative, a detailed cumulative effects analysis for the No Action Alternative is not possible, but the environmental benefits contributed by the Preferred Action to the cumulative changes in the ROI would not occur. Under the No Action Alternative, it is anticipated that the VA
would sell the property, and the property would be developed in accordance with local zoning and applicable regulations. Based on the development trends in the ROI, as shown above, this future development would likely include additional residential, industrial, institutional, and/or commercial development. Under this scenario, the benefits of the Proposed Action, such as open space retention, localized stormwater/flooding reduction, and the like, would not occur.

3.13 Potential for Generating Substantial Public Controversy

As discussed in Section 4, the VA will solicit input from various federal, state, and local government agencies regarding the Proposed Action.

In addition, the VA, as the federal proponent of this Proposed Action, will publish and distribute the Draft SEA for a 30-day public comment period, as announced by a Notice of Availability (NOA) published in the Pueblo Chieftain and the Gazette newspapers. Review copies of the Draft SEA will be made available for public review at the Ruth Holly and Sand Creek branches of the Pikes Peak Library District, and on the VA website.

The VA held an initial scoping public meeting on October 21, 2015, at the Retired Enlisted Association (Section 4.1.1). Based on beneficial effects of the Preferred Action Alternative and responses during the scoping meeting, there appears to be little potential for generating public controversy. Because the planned development of the site would occur in a manner that is consistent with local land use plans, and considering the absence of identified opposition during the PEA and SEA processes, it is not anticipated that there would be substantial public controversy regarding the Proposed Action. The No Action Alternative may result in a controversy concerning veterans’ desire for interment in a veteran’s cemetery. No Action would result in no burials at the site, requiring veterans to either be buried in the nearest National Cemetery (over 75 miles away) or resort to private burials.