

exceed the MDAQMD significance threshold, Alternatives II and IV would generate significant PM-10 impacts.

#### **4.7.5 Cumulative Impacts**

The proposed project, in combination with other actions particularly in the vicinity of State Highway 127 and the area to the southeast of the study area towards Interstate 15, or within one of the many utility corridors lying to the east and southeast of Fort Irwin, may have a significant cumulative impact. While no additional miles will be traveled per rotation and there will be no increase in the number of rotations, thus no increase in other types of pollutants, there is the potential for fugitive dust to travel beyond the installation boundaries on days of exceptionally high winds. On these days, fugitive dust may be combined with dust created by military movement along Manix Trail, private vehicle movement along dirt roads and highways, and fugitive dust created by projects that are ongoing within the utility corridors or other commercial or private activities.

The situation should improve in the future with the addition of the Fort Irwin rail spur, which would eliminate most vehicle traffic on the Manix Trail, and the implementation of the BLM's route closure program. In addition, the purchase of private land for mitigation for the proposed project should curb private development and route proliferation in the ROI in the future preventing additional soil disturbance.

The creation of the NTC in the early 80s, and prior training activities dating back to WWII, have created a condition wherein vegetation cover has been lost from much of the installation. The addition of training land and additional loss of vegetation cover associated with military maneuvers will add to this impact by increasing the acreage of exposed soil that would then be subject to wind erosion and attendant creation of air borne particulate matter.

#### **4.8 Noise**

This section provides a discussion of the noise impacts associated with the project and the project's affect on surrounding noise sensitive areas.

Determining a significant noise impact is based on Army Regulation 200-1, which implements federal laws concerning environmental noise for Department of the Army activities. Based on this regulation, a significant noise impact would occur if any of the following occurred:

- ❖ Noise-sensitive land uses such as residences, schools, and medical facilities fall within Noise Zones II or III, as described in Table 3.8-1.

Noise Zone I would be considered an insignificant noise impact. The following sections describe noise-producing activities that occur within Fort Irwin.

##### **4.8.1 Noise Impacts on Wildlife**

Studies on the effects of noise on wildlife, caused by aircraft overflights and impulse noise such as sonic booms have been focused on birds and hooved mammals, including raptors and bighorn sheep. It has been shown that occasional, low-altitude overflights can produce increased heart rates in hooved mammals, but the effect was not found to be detrimental. Birds, on the other hand, appear to be unaffected by both low-level aircraft overflight noise and sonic booms. In one study, a researcher observed a raptor species hunting on a bombing range in Mississippi. The species

appeared to be unaffected by the military exercises, even when a bomb exploded within approximately 200 feet. One exception appears to be that when helicopters flew within one-half mile of raptor nests, the raptors appeared startled and alerted. In another study, raptors were found to habituate to aircraft overflights rapidly. Desert tortoises also appear to be unaffected by noise even up to levels over 100 dBA. No significant noise impacts on wildlife are expected from NTC and Fort Irwin operations.

## **4.8.2 Other Noise Impacts**

### **4.8.2.1 All Action Alternatives (I: East/West; II: East Gate/South; III: East Gate; IV: Southwest/East Gate/UTM 90; and V: East Gate/UTM 90)**

This project will have no changes to current live-fire activities. There are no live-fire or live weapons impacts (live weapons impacting the earth) planned to occur within the new maneuver areas—all live-fire and live weapons releases/impacts will be contained within the currently approved live-fire and weapons impact areas. The new maneuver areas will be designated for force-on-force training only. Impacts are expected to occur to wildlife in all alternatives due to increased vehicle, aircraft traffic, and simulated gunfire noise. However, such impacts would be of short duration, not exceeding 10 days per month, in any given area and be of a dispersed nature and on average less than 80 dBA. As such, no significant impacts from noise are expected to occur.

### **Mitigation**

There are no adverse noise impacts associated with the proposed expanded maneuver areas, therefore there are no noise mitigation measures necessary.

### **4.8.2.2 Alternative VI: No Action**

Under the no action alternative, there would be no changes to the current NTC mission and therefore, no changes to current noise impacts and/or mitigation measures.

## **4.8.3 Cumulative Impacts**

Cumulative significant impacts to noise may result due to pyrotechnic discharge, aircraft and military vehicle noise combined with the noise created by other military aircraft operations in the Superior Valley and Eastgate areas. In the past and currently, military aircraft have operated in these areas as part of exercises at Fort Irwin or neighboring installations. The Superior Valley area is beneath the Black Mountain Super Sonic Test corridor and experiences sonic booms on a near daily basis. There is also a proposal to increase the operations at NAWS China Lake that would increase airspace use above portions of the ROI. There are also many existing low level jet flights and helicopter flights by the Navy, Air Force, and Army in both the Superior Valley, Eastgate, and south of Fort Irwin. These flights have occurred primarily since the 1950s and have increased in frequency and noise level over time.

With the addition of air components of training to these areas, the noise level in these areas may increase on approximately 5 to 10 days per rotation. While the increase or frequency in noise levels may be unnoticeable to the populations or sensitive receptors at Fort Irwin or south of the Coolgardie Mesa (south of Superior Valley), the increased noise levels or frequency may have a significant cumulative impact on wildlife in these areas.