

**Section I**

**PURPOSE**

One of the most desired characteristics of desert living is the relatively quiet, peaceful and tranquil attributes compared to the busier urban settings of Southern California. In analyzing the quality of life in the community of Twentynine Palms, these attributes represent the City's greatest assets. The purpose of the Noise Plan is to retain and protect quality of life by preventing, reducing and controlling noise.

Lack of noise is a basic and desirable characteristic of living in the City. As development occurs, competing interest have the potential to collide and, if not carefully planned, can result in intrusive noise which could degrade the quality of life for residents and visitors.

The Noise Plan seeks to identify noise sources, and provide a means for sustainable growth without the result of excessive noise. Issues addressed in the Noise Plan include those set forth in California Government Code Section 65302 (f).

**Section II**

**EXISTING NOISE**

Noise can be defined as unwanted or undesired sound. Airborne sound is the result of a very rapid change in air pressure from the surrounding normal atmospheric pressure. The combination of noise from all sources near and far is the Ambient Noise Level, or environmental noise.

The most common source of noise is transportation modes. Because of this fact, state law requires that the Noise Plan concentrate on transportation noise. Although the authority for regulating automobiles, motorcycles, and truck noise is held by the State of California, the City may enforce some of these state laws regarding vehicle noise.

Major sources of noise in Twentynine Palms are transportation and combat exercises on the Marine Corps Air Ground Combat Center (MCAGCC). Additionally, noise is generated by construction and other types of human activity. Fixed sources of noise can be controlled by the City and abated through an active noise

control program; mobile sources are more difficult to control and abate.

### **Section III**

#### **CHARACTERISTICS OF NOISE**

Sound has several characteristics that includes loudness, frequency, pitch, duration and cycle consistency. For humans, the two most significant characteristics are pitch and loudness. These two factors, when inflicted in excess, according to the medical profession, can annoy and impair the ability to hear. Noise can also produce a psychological effect on humans, and in the case of excess, may result in hearing loss. Further medical research indicates that noise can, tentatively, be linked to cardiorespiratory and digestive disorders.

Towards the goal of protecting a desert living environment and protecting the health of the citizens of the community, excessive and unnecessary noise must be actively abated.

### **Section IV**

#### **IDENTIFICATION OF NOISE SOURCES**

##### **A. Aircraft Noise**

Aircraft noise in the City generally is the result of either general aviation operations or military overflights originating from or destined to the MCAGCC. Twentynine Palms Airport is located within the City's Sphere of Influence, two miles east of the City. It is open to public use and is classified by the Federal Aviation Administration as a Category B, Group 1 airport. There are two paved, lighted runways, the east/west runway is 47 feet wide and 5,531 feet long. The north/south runway is 50 feet wide and 3,800 feet long. Funding has been secured from the Federal Aviation Administration to construct a new east/west runway, 75 feet wide and 5,531 long; when this is completed, the existing 47 foot wide runway will serve as a parallel taxiway for the newly constructed runway.

The Twentynine Palms Expeditionary Airfield, located aboard MCAGCC (outside the City limits), is for military aviation only. The Airfield has one 8,000-foot, (aluminum matting) runway.

There are several private landing strips or airports in the vicinity which provide for private aviation needs. These facilities include:

- ! Cones Field, located east of Adobe Road, south of Amboy Road. Cones Field has three unpaved, unlighted runways; the longest is 1,400 feet in length.
- ! Crosswinds Airport, located just outside the City's easterly limits, south of Amboy Road on the west side of Prairie Dog Avenue. Crosswinds Airport has two unpaved, unlighted runways, the longest is 2,500 feet in length.

- ! Dale Sky Ranch, located along Bullion Mountain Road, north of Amboy Road. Two graded runways, the longest is 3,500 feet in length, has a partial concrete surface.

Noise emanating from aircraft is regulated through federal and state regulations. Federal regulation is through the Environmental Protection Agency (EPA), Federal Aviation Administration (FAA), and the Department of Transportation (DOT).

The State of California is concerned with protecting the public from noise by enacting standards and defining compatible land uses around airports. The state has found the following land uses compatible within the noise impact boundaries of airports:

1. Agricultural, airport industrial and commercial property
2. Aviation easement for noise
3. Open space
4. Acoustically treated residential areas

#### **B. Motor Vehicle Noise**

Vehicular traffic accounts for much of the noise generated within the City. Noise from automobiles, trucks, busses, and motorcycles varies according to the volume of traffic, the percentage of trucks, and traffic speed. Military convoys result in the generation of noise in the City. However, the Base Command is diligent in ensuring that truck routes are followed and impacts are kept to a minimum.

The state program consists of enforcement of vehicle noise emission for all motor vehicles subject to state registration. The California Highway Patrol has the prime responsibility for the enforcement of noise standards but the San Bernardino County Sheriff's Department, acting in their role as the local police authority, may also enforce these regulations.

Future noise impacts in the City may occur as a result of increased traffic. With special attention paid to site design and infrastructure development, noise impacts can be substantially reduced.

#### **C. Construction and Industrial Noise**

The regulation of noise standards generated by construction equipment and industrial sites is under the jurisdiction of the Occupational Safety and Health Administration (OSHA) and the EPA. The City may, notwithstanding, establish curfews on the hours of operation of these facilities.

#### **D. Noise Sources Controllable by the City**

The City, through its police power, may promote the public health, safety and welfare, with noise standards

to regulate and control:

1. Amplified sound
2. Noise making apparatus
3. Disturbers of the peace
4. Human voice and animal noise

**Exhibit A**  
**Background Noise Level**

**Exhibit B**  
**Construction Noise**

**Exhibit C**  
**Harmful Effects of Noise**

**Exhibit D**  
**Typical Noise Levels of Familiar Sources**

**Section V**

**NOISE LEVEL MEASUREMENT**

Two scales for defining noise levels can be used for this Plan:

**A. Community Noise Equivalent Level (CNEL)**

The CNEL system takes into account the duration of the noise in addition to the magnitude and frequency characteristics, and the number of occurrences in a twenty-four (24) hour period. The level is adjusted by applying the measurements to evening periods (7:00 p.m. to 10:00 p.m.) and nighttime periods (10:00 p.m. to 7:00 a.m.) weighing factors of three (3) and ten (10) respectively.

**B. Day-Night Average Sound Level (Ldn)**

The Ldn average sound level is similar to the CNEL, except that the three hour evening period of the CNEL system is combined with and given the same weight as the daytime period. The Ldn scale is used in the development of Highway and Railroad noise levels.

Noise contours developed by CNEL and Ldn procedures seldom differ by more than one decibel.

**Exhibit E**  
**Land Use compatibility**

**Section VI****DESIRED MAXIMUM NOISE LEVELS**

| <b>Table I<br/>DESIRED MAXIMUM NOISE LEVELS<br/>BY LAND USE CATEGORIES<sup>e</sup></b>                                       |   |
|--|---|
| Land Use Districts   | Noise Levels                                      |
| Single Family Residential (RS)<br>Rural Living (RL)<br>Open Space Residential (OSR)  | 45 db CNEL's<br>(As measured from living areas)   |
| Multiple Family Residential (RM)   | 50 db CNEL's<br>(As measured from living areas)   |
| General Commercial (CG)<br>Neighborhood Commercial (CN)<br>Office Commercial (CO)<br>Tourist Commercial (CT)                 | 60 db CNEL's<br>(As measured from activity areas) |
| Public (P)   | 60 db CNEL's<br>(As measured from activity areas) |
| Service Commercial (CS)  | 70 db CNEL's<br>(As measured from working areas)  |
| Community Industrial (IC)  | 70 db CNEL's<br>(As measured from working areas)  |
| Military (M)   | As determined by Base Command                     |
| <p><sup>e</sup> Desired noise levels may not be feasible in all cases, the figures represent a target to be strived for.</p> |   |

**Section VII  
GOAL AND POLICIES****A. Overview**

The following goals are established for the Noise Plan. The purpose of each goal is established in this section. To facilitate each goal, policies are established and each policy is executed by one or more programs.

**B. GOAL #1**

Noise levels will be anticipated prior to the City taking actions on land use proposals and potential conflicts will be avoided so that noise levels will not exceed acceptable levels.

**Purpose**

The purpose of Goal #1 is to identify potential noise generated in the City and minimize noise levels to avoid stress and health damage.

**Policy 1.1**

Noise generation impacts will be considered prior to any land use designation change and/or any land use intensification and uses will be located in a manner which minimizes noise for residential areas.

**Program 1.1.1**

Before approval of projects which may result in significant noise pollution, the City will require noise analysis to ensure that noise levels do not exceed acceptable levels.

**Program 1.1.2**

Industrial uses which may generate noise levels which could impact other uses, will be limited to the industrial areas shown on the Land Use Plan Map.

**Program 1.1.3**

Industrial areas will be buffered from dense residential development by Rural Living designations.

**Program 1.1.4**

Heavier commercial uses found in Service Commercial (CS) zones will be buffered from adjacent residential zones.

**Program 1.1.5**

The City will prohibit the establishment of land uses in the Twentynine Palms Airport flight pattern that would result in noise conflicts.

**Program 1.1.6**

Commercial uses which are permitted in or near residential zones are required to be in keeping with the surrounding residential character.

**Program 1.1.7**

Commercial and Industrial Districts will be buffered from adjacent residential development.

**Policy 1.2**

Enforcement efforts will be implemented to minimize noise disturbance.

**Program 1.2.1**

The City will establish a systematic program to encourage voluntary compliance with noise regulations.

**Program 1.2.2**

Noise education and enforcement will be pursued to locate and abate non-compatible noise sources.

**Policy 1.3**

The City will require special design standards for proposed projects with the potential to exceed the noise level requirements.

**Program 1.3.1**

In cases where special design standards are required, the City will require mitigation plans to be certified by a registered acoustician.

**C. GOAL #2**

Circulation systems shall be designed in such a manner as to avoid noise impacts where possible.

**Purpose**

The purpose of Goal #2 is to ensure development of roadways does not result in unnecessary noise impacts on residential areas.

**Policy 2.1**

The City will consider noise impacts prior to development of new road systems.

**Program 2.1.1**

The City will cooperate and coordinate with transportation agencies to control noise generated by facilities and equipment.

**Program 2.1.2**

Truck routes will be designated for intercity truck traffic.