

## 4.11 Noise

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
<b>Would the project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### ENVIRONMENTAL SETTING

#### Technical Background

Sound is a pressure wave transmitted through the air and is described in terms of loudness or amplitude (measured in decibels [dBA]), frequency of pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in minutes or seconds).

Typical human hearing can detect changes in sound levels of approximately 3 dBA under normal conditions. Changes as low as 1 dBA are discernible under quiet, controlled conditions. The human ear is not equally sensitive to all sound frequencies. Sound waves below 16 Hz are not heard at all but can be felt as vibrations. While people with extremely sensitive hearing can discern sounds with pitches as high as 20,000 Hz, most people cannot hear sound with a frequency above 5,000 Hz or below 200 Hz. A special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel compensates by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted or objectionable sound, and usually reflects changes from typical background noise levels and spectra. Airborne sound is described as a rapid fluctuation of air pressure above and below the atmospheric pressure. Magnitude, frequency and duration are the variables used to characterize noise. In general, people can perceive a 3 dB difference in noise levels, and a difference of 6-10 dB is perceived as a doubling of loudness. Distance serves to attenuate noise levels and changes frequencies. With every doubling of distance, there is a corresponding reduction in noise levels of approximately 5 to 6 dB. Noise levels from familiar sources are shown in Table 4.11-1.

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**Table 4.11-1: Typical Residential/Commercial Noise Sources and Levels**

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<b>Noise Source</b>	<b>Noise Level (dBA)</b>
Rustle of leaves in breeze	25
Whisper (at 6 feet)	35
Inside average residence	40
Refrigerator (in same room)	40
Average office	55
Normal female speech (at 3 feet)	60
Vacuum cleaner (at 10 feet)	70
Garbage disposal (at 3 feet)	80
Food blender (at 3 feet)	90
Auto horn (at 10 feet)	100

SOURCE: J.J. Van Houten, 1974

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### **Regional Setting**

Los Angeles County supports a diverse mix of land uses and potential noise sources. The region is characterized by widespread high-use freeways and major arterials to support residential development, as well as large commercial and industrial development zones.

Noise through the region ranges from quiet parks and open spaces to high intensity noise sources such as heavy interchange traffic (e.g., SR60/SR19, SR60/I-610) and John Wayne and Ontario International Airports.

### Local Setting

The City of Montebello is predominantly residential, with associated light commercial, educational, religious, public service, medical and recreational use facilities. Areas immediately surrounding the MGSF sites are dominated by residential neighborhoods and open space lands. Currently, no other industrial noise sources are located in the vicinity of the MGSF. The OII Landfill located immediately to the north has no active industrial usage and the Montebello Oilfield has no active processing units.

The OII Landfill provides some sound mitigation for the Pomona Freeway (State Route 60) and traffic noise generated thereon. Homes are adjacent to the Main Facility and other MGSF sites. Homes, public parks, and buildings along main transportation arteries such as Montebello Boulevard, Jefferson Boulevard and Howard Avenue represent the most sensitive receptors for excessive noise levels around the MGSF sites. Normal background noise sources and levels in the vicinity of the Project are dominated by the Pomona (SR 60) Freeway and Montebello Boulevard traffic.

According to the Noise Element prepared for the City of Los Angeles by J.J. Van Houten & Associates in 1974, suburban noise levels are generally greater during weekdays than over the weekends in Los Angeles County.<sup>1</sup> Typically, noise levels in Montebello are expected to be highest between the hours of 7 to 9 AM and 3 to 8 PM.<sup>2</sup> Although aircraft approaching LAX pass over the City of Montebello, and helicopters occasionally land in the city, noise from these aircraft was not considered significant in developing the City Noise Element (City of Montebello General Plan, 1973).

Existing or typical sources of noise at the MGSF include auto and truck traffic and the compressors on the high or north terrace level. When the field is operated for injection and withdrawal of storage gas, some noise is generated by on-site equipment. Noise generated on-site has been reported in compliance with the City of Montebello Noise Ordinance and the City-issued Conditional Use Permit. Heavy truck traffic is the most significant single source of traffic noise in Montebello and is generally limited to the major and minor arterials.

The topography of the major MGSF sites modifies the noise levels from and across the sites. The OII Landfill forms a sound barrier separation for most of the MGSF along with the high ground immediately to the west of the Main Facility. The 25-70 ft. depression of the Main Facility reduces some noise generation from the site although the high elevation of the compressor level elevates equipment and probably produces audible sound levels at night. The low frequency and low but perceptible levels are probably merged with the background freeway noise levels, and the compressors are screened from view by the internal and perimeter landscaping. The East Site isolates and buffers some of the Racquet Mountain 2 estate from traffic noise generated on Montebello Boulevard and does not generate any perceptible noise, apart from that of the road. Equipment is enclosed by high earthen banks, which reflect noise onto the road corridor.

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<sup>1</sup> Montebello Noise Element, Fig. 5.

<sup>2</sup> Montebello Noise Element Fig. 4. Typical noise level variation with time-of-day at locations near Montebello arterials.

The Monterey Park Lots (2) located northeast of the Main Facility are zoned for manufacturing.

### **REGULATORY SETTING**

The State of California Department of Health Services (DHS) Office of Noise Control has studied the correlation between noise levels and their effects on various land uses, and has established four categories for judging the severity of noise intrusion on specified land uses. Noise in the "normally acceptable" category generally requires no mitigation. Noise in the "conditionally acceptable" category may require some mitigation. The "normally unacceptable" category would require substantial mitigation, while the "clearly unacceptable" category can probably not be mitigated to acceptable noise levels.

The General Plan for the City of Montebello includes a Noise Element prepared in accordance with state law (California Government Code §65303g) and in conformance with guidelines set forth by the Council on Intergovernmental Relations. The Noise Element draws upon A Technical Background Study completed for the City of Montebello by J.J. Van Houten & Associates, Acoustical Consultants.

Policies set forth in the Noise Element of the City's General Plan focus on viable approaches to noise reduction, such as:

- Pursuing legislation that would reduce transportation noise
- Enforcing noise control regulations from applicable jurisdictions
- Developing an enforceable Noise Ordinance
- Planning to minimize adverse noise impacts in the community
- Encouraging voluntary noise reduction
- Promoting noise minimization in all City activities

For land uses where the adjacent zone is residential, noise levels of 65 dBA during the day (7 AM to 10 PM) and 60 dBA over night have been considered acceptable standards for maximum noise levels by the City of Montebello for the general purpose of issuing land use permits in the past (Chambers 2000).

As perceived by human hearing, a 10 dB increase in noise level represents a doubling of the apparent loudness of sound.<sup>3</sup> A Community Noise Equivalency Level (CNEL) measurement system is employed in Montebello's Noise Element.<sup>4</sup>

Transportation noise was determined to be the noise source of the greatest magnitude for the City of Montebello. The Noise Element notes that highway, railroad and freeway traffic are the most significant noise sources for the City of Montebello, especially that generated by traffic on the Pomona (SR 60) Freeway, Montebello Boulevard, Rosemead Boulevard, and Beverly Boulevard.<sup>5</sup>

Both typical arterial highway noise levels from a distance of approximately 1000 feet, and typical freeway noise levels from approximately the same distance, have been measured

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<sup>3</sup> Because the decibel scale is logarithmic, sound from a heavy truck at 90 dB sounds twice as loud as an alarm clock at 80dB, and four times as loud as freeway traffic at 70 dB.

<sup>4</sup> CNEL is a standard acoustical scale utilizing a weighted average to sensitize late evening and morning noise readings.

<sup>5</sup> Although aircraft approaching LAX pass over the City of Montebello, and helicopters occasionally land in the city, noise from these aircraft was not considered significant in developing the City Noise Element.

at approximately 60 dBA, according to the Noise Element prepared in 1974 for Los Angeles County (Van Houten, 1974).

The City Conditional Use Permit issued for the MGSF requires that all technically feasible means be taken to limit sound produced by operations within the plant area so as to observe a maximum audibility of 70 decibels measured at any point 50 yards or more outside the plant boundaries.

## **ENVIRONMENTAL IMPACTS**

### **Significance Criteria**

Noise is known to have adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Criteria have been established at the federal, state and local levels to protect public health and safety and to prevent disruption of human activities. Changes must be evaluated for the amount of noise affecting sensitive land uses and the number of sensitive receptors exposed to the noise to determine environmental impact.

The criteria to assess a level of significance for potential environmental impacts associated with noise is predicated on the checklist questions above and reiterated below:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels

### **Decommissioning and Sale**

**Checklist Question a)** Operation of the MGSF facilities are regulated for various criteria by permits issued to the facility by the City of Montebello. Included in those permits are maximum noise generation levels. Recovery of the cushion gas is regulated by those permits, which effectively establish acceptable noise levels for the facilities. The decommissioning process, including well abandonment, equipment removal and building demolition will generate different types of noises and different noise levels than during normal MGSF operations. The City of Montebello has in place noise standards designed to establish limitations on the generation of noise. The City also has a process for regulating and enforcing its regulations should violations occur. It is anticipated that these standards will be imposed on permits issued for demolition of the MGSF's buildings at the Main Facility. Nonetheless, the potential remains that through a concentration of decommissioning activities noise generation on the Main Facility could become excessive,

and represent a potentially significant impact. The application of the following mitigation measure would reduce that potential to a less than significant level.

**Mitigation Measure 4.11-1**

SCG shall prepare the decommissioning program, including schedules and mitigation measures for managing all potentially disturbing decommissioning activities, e.g., hazard-related elements, traffic, and noise. Nighttime and weekend noise levels shall be maintained at limits as specified in the Conditional Use Permit and the Special Use Permit issued by the City of Montebello, and by current City Ordinances.

**Checklist Question b)** Project implementation is not expected to result in the introduction of equipment or processes that will result in the generation of ground borne vibration or noise, and therefore no significant impact is anticipated.

**Checklist Questions c)** Project implementation is anticipated to occur over a period of 5 years. Once cushion gas recover, well abandonment, equipment removal and building demolition is complete no noise from the project will be generated.

**Checklist question d)** Project implementation over the course of 5 years will result in the generation of short-term noise that could exceed established City standards or which could result in the generation of citizen complaints. The potential exists for intermittent noise to occur during well abandonment, equipment removal, and building demolition. The main well control system opens all the wells at once when gas is being withdrawn, causing a considerable increase in ambient noise levels which neighborhood residents have noticed in the past (MHA - J. Meth Field Notes, December 2000). Although short term in duration, the potential noise generation could be considered potentially significant. This potential can be mitigated to a level of less than significant by application of Mitigation Measure 4.11-1 above.

**Checklist Question e), and f)** The Project is not located within two miles of a public use airport, and the MGSF would not be exposed to significant noise levels from air traffic. Helicopters occasionally pass over or land in the area. Noise from these aircraft was not considered significant in developing the City Noise Element, and adverse impacts are not anticipated. Similarly the eastern approach for the Los Angeles International Airport lies above the Monterey Park/Montebello, but approach patterns are sufficiently high so as to be of little concern. No other airport represent a significant source for affecting future uses of the Main Facility, East Site, or Townsite Lots.

**Future Development**

**Checklist Question c)** Development and subsequent use of 22 single family homes (Montebello) and an industrial or manufacturing use (Monterey Park) will not result in the generation of noise levels in excess of established community standards. Residential use is typically not regarded as a significant noise source. The development of an industrial or manufacturing use on the Monterey Park Parcels could include a use or activity that might generate noise, however it is anticipated that the City of Monterey Park would during the course of entitlement processing address and adequately mitigate any potential noise issues.

**Checklist Question d)** Construction of buildings on the MGSF sites will result in the generation of short-term noise. Short-term construction noise is typically not regarded as a

potentially significant impact. Further, it is anticipated that during the entitlement process for development of any of the MGSF sites the cities of Montebello and Monterey Park will impose conditions of approval that address such aspects of project development as hours of construction, which effectively limits the time during which construction noise could be generated. As such, the generation of construction noise is expected to be less than significant.

**Future Development**

Mitigation is not required.