

## 3.6 NOISE

This section describes the existing noise environment of the Project Area and evaluates potential noise associated with the Project. The applicable noise descriptors, significance criteria for any increased noise, and the potential impacts are discussed below.

### 3.6.1 Setting

#### Environmental Setting

##### *Noise Descriptors*

To describe noise environments and to assess impacts on noise-sensitive areas, a frequency weighting measure, which simulates human perception, is commonly used. It has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA)<sup>1</sup> is cited in most noise criteria. Decibels are logarithmic units that conveniently compare the wide range of sound intensities to which the human ear is sensitive. **Table 3.6-1** identifies typical ranges of decibel levels for common sounds heard in the environment.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A-weighted sound level over a given time period ( $L_{eq}$ );<sup>2</sup> average day-night 24-hour average sound level ( $L_{dn}$ )<sup>3</sup> with a nighttime increase of 10 dBA to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL),<sup>4</sup> also a 24-hour average that includes both an evening and a nighttime weighting.

---

<sup>1</sup> A decibel (dB) is a unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called "sound level") measured in dB. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response to the typical human ear at commonly encountered noise levels.

<sup>2</sup> The Equivalent Sound Level ( $L_{eq}$ ) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time-varying sound energy in the measurement period.

<sup>3</sup>  $L_{dn}$  is the day-night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a ten-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

<sup>4</sup> CNEL is the average A-weighted noise level during a 24-hour-day, obtained by addition of 7 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10-decibel penalty in the night between 10:00 p.m. and 7:00 a.m.

**Table 3.6-1 Typical Noise Levels**

Noise Level (dBA)	Outdoor Activity	Indoor Activity
90+	Gas lawn mower at 3 feet, jet flyover at 1,000 feet	Rock Band
80-90	Diesel truck at 50 feet	Loud television at 3 feet
70-80	Gas lawn mower at 100 feet, noisy urban area	Garbage disposal at 3 feet, vacuum cleaner at 10 feet
60-70	Commercial area	Normal speech at 3 feet
40-60	Quiet urban daytime, traffic at 300 feet	Large business office, dishwasher next room
20-40	Quiet rural, suburban nighttime	Concert hall (background), library, bedroom at night
10-20		Broadcast / recording studio
0	Lowest threshold of human hearing	Lowest threshold of human hearing

Source: Modified from Caltrans Technical Noise Supplement, 1998.

### *Existing Noise Environment and Sensitive Receptors*

The creek channel where most of the Project activity would take place is mostly undeveloped agricultural open space surrounded primarily by agricultural land. The nearest major noise sources are Interstate 80 (I-80) and I-505, both of which cross the Project alignment. Other sources of noise include traffic noise from other roads that cross and parallel the creek on either side, as well aircraft noise from University Airport, and agricultural operations on adjacent properties. Background noise levels for rural residential and agricultural cropland typically range from 39 dB  $L_{dn}$  to 44 dB  $L_{dn}$  (EPA, 1978).

Noise sensitive receptors (land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise) typically include residential dwellings, hotels, motels, hospitals, nursing homes, educational facilities, and libraries. Detailed descriptions of noise-sensitive receptors along the Project alignment are presented below, in “Project Area Conditions by Reach.”

### **Project Area Conditions by Reach**

#### *NAWCA/Mariani*

This reach contains several houses in Solano County just outside of the Project alignment on the southwest side.

*Duncan – Giovannoni*

Several houses and farm buildings lie just outside of the alignment on the south and west sides of the alignment in Solano County. Residential areas of the City of Winters lie about 800 feet north of the eastern portion of the alignment.

*Winters Putah Creek Nature Park*

Recreational, residential and commercial land uses in the City of Winters occur along this reach. Maintenance activities proposed by the Project would not adversely affect recreational activities in this reach.

*East of 505*

The El Rio Villa residential development lies around 1,000 feet northeast of the eastern side of this reach in unincorporated Yolo County.

*Warren*

The El Rio Villa residential development lies around 1,000 feet northeast of the reach. There are two large houses that lie 300 to 500 feet to the southeast of the eastern end of the reach in Solano County.

*Upper McNamara*

There are no sensitive receptors in the vicinity of this reach.

*Lower McNamara*

There are no sensitive receptors in the vicinity of this reach.

*MacQuiddy (Lester)*

There is a residence located approximately 50 feet east from the southeast corner of the reach in Solano County.

*Russell Ranch*

There are several homes to the north of this reach, some as close as 150 feet from the Project alignment in Yolo County. There is also a residence located 150 feet south of the Project alignment in Solano County.

*Stevenson Bridge*

There are rural residences located to the northwest of Stevenson Bridge in Yolo County.

*Glide Ranch*

Several rural residential complexes lie immediately to the south of this alignment in Solano County.

*Nishikawa*

There are no sensitive receptors in the vicinity of this reach.

*Olmo-Hammond-UCD*

There are no sensitive receptors in the vicinity of this reach.

*I-80 to Old Davis Road*

This reach contains one residence 550 feet to the south of creek alignment in Solano County.

*Old Davis Road to Mace*

There are no sensitive receptors in the vicinity of this reach.

*Mace to Road 106A*

This reach contains one large residence 425 feet north of the Project alignment in Yolo County.

*Road 106A to Yolo Bypass Wildlife Area*

There are no sensitive receptors in the vicinity of this reach.

**Regulatory Setting**

Federal, State, and local agencies regulate different aspects of environmental noise. Federal and State agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans; local noise ordinances establish standards and procedures for addressing specific noise sources and activities.

## *Federal Regulations*

### Occupational Safety and Health Act of 1970

Federal codes, primarily the Occupational Safety and Health Act (OSHA) of 1970, govern worker exposure to noise levels. These regulations would be applicable to all phases of the Proposed Project and are designed to limit worker exposure to noise levels of 85 dB or lower over an 8-hour period (Title 29, Code of Federal Regulations [CFR], Section 1910.95).

### *U.S. Environmental Protection Agency*

Federal regulations have established noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under Title 40 Code of Federal Regulations (CFR) Part 205, Subpart B. The federal truck pass-by noise standard is 80 dB at 15 meters from the centerline of the vehicle pathway. These standards are implemented through regulatory controls on truck manufacturers.

### *State Regulations*

#### California Noise Exposure Regulations and Title 8, CCR, Section 5095

State of California regulations (California Noise Exposure Regulations and Title 8, CCR, Section 5095) address worker exposure to noise levels. These regulations limit worker exposure to noise levels of 85 dB or lower over an 8-hour period. The State has not established noise levels for various non-work-related environments.

The State of California established noise limits for vehicles licensed to operate on public roads. The pass-by standard for heavy trucks is consistent with the federal limit of 80 dB. The pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanctions on vehicle operators by State and local law enforcement officials.

#### Noise Insulation Standards

Title 24 of the CCR, “Noise Insulation Standards” establishes 45 dBA  $L_{dn}$  as the limit for interior community noise level for multi-family dwellings, hotels, motels, dormitories, and long-term care facilities. The state’s regulation may be extended by local legislative action to include single-family dwellings.

### Noise Compatibility Guidelines

The Noise Compatibility Guidelines recommended by the Governor’s Office of Planning and Research (OPR) are shown in **Table 3.6-2**. The guidelines summarize the suggested use of CNEL/ L<sub>dn</sub> metrics for evaluating land use compatibility. The objective of the Noise Compatibility Guidelines is to provide the community with a means of judging the noise environment it deems to be generally acceptable.

#### *Local Regulations*

##### Solano County Noise Standards

Solano County does not have a noise ordinance nor any exclusion for construction noise. The Noise section of the Public Health and Safety Element of the Solano County General Plan contains Land Use Compatibility Guidelines as well as noise performance standards for non-transportation noise sources shown in **Table 3.6-3**.

##### Yolo County General Plan

The Health and Safety Element of the 2009 Yolo County General Plan contains noise compatibility guidelines that describe exterior and interior noise standards consistent with the OPR Noise Compatibility Guidelines (see Table 3.6-2) and California State Noise Insulation Standards. Yolo County does not have a noise ordinance nor any exclusion for construction noise.

##### City of Winters

Section 8.20.120 of the City of Winters Noise Ordinance exempts construction and demolition noise from the Exterior Noise Standards.

### **3.6.2 Significance Criteria**

Criteria for determining significant impacts are based upon the California Environmental Quality Act (CEQA) Guidelines (Appendix G) and professional judgment. These guidelines identify thresholds that may be considered to determine whether an impact is significant. Using these thresholds the proposed Project would be considered to have a significant noise impacts if it were to:

- Expose persons to or generate noise levels in excess of standards established in the local city or county General Plan or noise ordinance, or applicable standard of other agencies;
- Expose persons to or generate excessive ground-borne vibrations or ground-borne noise levels;

**Table 3.6-2 Noise Compatibility Guidelines**

Land Use Category	Community Noise Exposure – Ldn or CNEL, dBA					
	55	60	65	70	75	80
Residential – Low Density Single Family, Duplex, Mobile Homes	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Residential – Multiple Family	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Transient Lodging – Motels, Hotels	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Auditoriums, Concert Halls, Amphitheaters	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Sports Arena, Outdoor Spectator Sports	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Playgrounds, Neighborhood Parks	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Office Buildings, Businesses, Commercial, and Professional	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable		
	<b>Normally Acceptable.</b> Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.					
	<b>Conditionally Acceptable.</b> New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.					
	<b>Normally Unacceptable.</b> New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.					
	<b>Clearly Unacceptable.</b> New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.					

Source: State of California Governor’s Office of Planning and Research (OPR), 2003 General Plan Guidelines.

**Table 3.6-3 Non-transportation Noise Standards- Average (dBA L<sub>eq</sub>)/ Maximum (dBA L<sub>max</sub>)<sup>a</sup>**

Receiving Land Use	Outdoor Area		Interior <sup>b</sup>	Notes
	Daytime	Nighttime	Day and Night	
All Residential	55/70	50/65	35/55	
Transient Lodging	55/75	-	35/55	<sup>c</sup>
Hospitals and Nursing Homes	55/75	-	35/55	<sup>d,e</sup>
Theaters and Auditoriums	-	-	30/50	<sup>e</sup>
Churches, Meeting Halls, Schools, Libraries, etc.	55/75	-	35/60	<sup>e</sup>
Office Buildings	60/75	-	45/65	<sup>e</sup>
Commercial Buildings	55/75	-	45/65	<sup>e</sup>
Playgrounds, Parks, etc.	65/75	-	-	<sup>e</sup>
Industry	60/80	-	50/70	<sup>e</sup>

Notes: Leq= equivalent or energy-averaged sound level; Lmax= Highest root-mean-square<sup>3</sup> sound level measured over a given period of time

<sup>a</sup>The standards shall be reduced by 5 dBA for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards, then the noise level standards shall be increased at 5-dBA increments to encompass the ambient.

<sup>b</sup> Interior-noise-level standards are applied within noise sensitive areas of the various land uses, with windows and doors in the closed positions

<sup>c</sup> Outdoor activity areas of transient lodging facilities are not commonly used during nighttime hours.

<sup>d</sup> Hospitals are often noise-generating uses. The exterior-noise-level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

<sup>e</sup> The outdoor activity areas of these uses (if any), are not typically utilized during nighttime hours.

Source: Solano County General Plan, Public Health and Safety Element, 2008

- Result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project;
- Be located within an airport land use plan or, where such plan has been adopted, within 2 miles of a public airport and therefore expose people residing or working in the project areas to excess noise levels; or
- Be located within the vicinity of a private airstrip and therefore expose people residing or working in the project area to excessive noise levels.

The Project would not involve the use of any heavy equipment or processes that would result in significant levels of ground vibration (such as pile drivers), therefore ground-borne vibration and noise levels are not discussed further in this section.

After construction there would not be any long-term noise generating activities, therefore there would be no permanent increase in noise levels and permanent increases in noise levels are not discussed further in this section.

### 3.6.3 Impacts and Mitigation Measures

Impacts and mitigation measures are described below both generally and by reach. Applicable impacts and mitigation measures for each reach are summarized in **Table 3.6-4**, at the end of this section.

#### General Impacts and Mitigation Measures

##### Impact 3.6-1: Temporary Construction Noise Disturbance.

Project construction would occur Monday through Friday between the hours of 7:00 a.m. and 7:00 p.m. Noise impacts would occur primarily during reconfiguration and realignment activities in which heavy construction equipment would be used. Construction equipment used for channel reconfiguration and realignment would include front-end loaders, dump trucks, backhoes, bulldozers, and excavators. This equipment generates maximum noise levels of 76 to 82 dB at a distance of 50 feet (HAW, 2006).

Channel reconfiguration and realignment activities would result in a temporary increase in noise levels in the Project vicinity. Noise from construction equipment (76 to 82 dB  $L_{max}$  at 50 feet) would be substantially higher than background ambient noise levels of 39 to 44 dB  $L_{dn}$  in rural agricultural settings when construction equipment is in operation. Temporary construction noise would be significant at residences within 400 feet of the Project site, because noise levels would be at 60 dB or higher at this distance and normal conversation is disturbed at levels above 60 dB (Caltrans, 1998). The implementation of Mitigation Measure 3.6-1 would reduce temporary construction noise but the increases would still be potentially **significant and unavoidable** in six of the reaches.

Temporary construction noise in the City of Winters would be compliant with the City of Winters Municipal Code; therefore, construction noise impacts would be considered less than significant at residences in the City of Winters.

Noise from construction equipment would exceed the Solano County daytime non-transportation noise standards, shown in Table 3.6-3, at residences closest to the

Project site in Solano County. This conflict with the Solano County General Plan Noise Element would result in a **potentially significant** impact.

Yolo County does not have a noise ordinance or other noise enforcement code at the present time. Therefore, noise levels at residences in Yolo County would not conflict with any standards.

With implementation of Mitigation Measure 3.6-1 the potential conflicts of construction noise with local noise standards (Solano County) would still be potentially significant and unavoidable in three of the reaches, as described below in Site-Specific Impacts and Mitigation.

*Mitigation Measure 3.6-1: Noise Reducing Construction Practices.*

The following mitigation measures shall be implemented to reduce noise impacts of construction activities within 400 feet of residences:

- Limit construction activities in all cases to 7:00 a.m. to 7:00 p.m.
- Configure the construction site in a manner that keeps noisier equipment and activities as far as possible from noise sensitive locations, including the placement of staging areas as far as practicable from nearby residences.
- Require that all construction equipment powered by gasoline or diesel engines have sound-control devices that are at least as effective as those originally provided by the manufacturer.
- Preventing excessive noise by shutting down idle vehicles or equipment.
- When practical, use noise barriers between major construction activities and noise sensitive land uses or take advantage of existing barrier features (e.g., terrain to block sound transmission to noise-sensitive land uses). To be effective, the barriers shall break the line of sight between the noise-sensitive use and on-site construction equipment.
- Designate an on-site construction complaint and enforcement manager for the project and notify neighbors and occupants within 400 feet of the Project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity.

## Site-Specific Impacts and Mitigation Measures

### *NAWCA/Mariani*

Project activities in this reach consist of maintenance and weed management. These activities do not require the use of heavy equipment, and would not result in a substantial amount of noise. Therefore, noise impacts on this reach would be **less than significant**.

### *Duncan-Giovannoni*

Construction Impacts 3.6-1 and 3.6-2 could occur on this reach. This reach contains several residences on the Solano County side of the Project alignment, which could be affected by a substantial temporary increase in ambient noise levels. At these residences, the maximum noise levels from heavy equipment could also exceed Solano County noise standards. Construction could be within 100 feet of residences and maximum noise levels could be as high as 75 dB at the closest location to construction. Therefore, temporary construction noise impacts in this reach would be potentially significant at these residences. The implementation of Mitigation Measure 3.6-1 would reduce temporary construction noise impacts. Because the construction could be very close to residences and noise barriers may not be feasible, noise impacts would remain significant and unavoidable.

The El Rio Villa development lies 800 feet to the north of this reach in Yolo County. At a distance of 800 feet, temporary construction noise would be **less than significant** at these residences.

### *Winters Putah Creek Nature Park*

Stream restoration and recreational improvements proposed for this reach have already been implemented as part of the Winters Putah Creek project. Maintenance activities proposed by the Project would not adversely affect noise levels or sensitive receptors in this reach.

### *East of 505*

Construction Impact 3.6-2 could occur on this reach. This reach contains the El Rio Villa residential development 1,000 feet northeast of the eastern side of the reach in Yolo County. Yolo County does not have a noise ordinance or other noise enforcement code at this time. At a distance of 1,000 feet, temporary construction noise would be **less than significant** at these residences.

*Warren*

Construction Impacts 3.6-1 and 3.6-2 could occur on this reach. This reach contains two residences about 300 to 500 feet southeast of Project construction in Solano County. At these residences, the maximum noise levels from heavy equipment would be 57 to 63 dB. Noise would not exceed Solano County noise standards, but would result in a substantial temporary increase in ambient noise levels at the residence within 400 feet of the Project alignment. Temporary construction noise impacts in this reach would be potentially significant. The implementation of Mitigation Measure 3.6-1 would reduce temporary construction noise impacts. Since construction could be very close to residences and noise barriers may not be feasible, noise impacts would remain **significant and unavoidable**.

This reach also contains the El Rio Villa residential development 1,000 feet northeast of the eastern side of the reach in Yolo County. At a distance of 1,000 feet, temporary construction noise would be **less than significant** at these residences.

*Upper McNamara*

This reach contains no sensitive receptors in the Project vicinity. Temporary construction noise in the reach would be **less than significant**.

*Lower McNamara*

This reach contains no sensitive receptors in the Project vicinity. Temporary construction noise in the reach would be **less than significant**.

*MacQuiddy (Lester)*

Construction Impacts 3.6-1 and 3.6-2 could occur on this reach. This reach contains a residence 50 feet east of the southeast corner in Solano County. At this residence, the maximum noise levels from heavy equipment could be as high as 82 dB. Noise from construction could exceed Solano County noise standards and result in a substantial temporary increase in ambient noise levels. Construction noise in this reach would result in a potentially significant impact. The implementation of Mitigation Measure 3.6-1 would reduce temporary construction noise. Since construction could be very close to residences and noise barriers may not be feasible, noise impacts would remain **significant and unavoidable**.

*Russell Ranch*

Construction Impacts 3.6-1 and 3.6-2 could occur on this reach. This reach contains rural residences 150 to 200 feet north of the Project alignment in Yolo County, and a residence 150 feet south of the alignment in Solano County. At these residences, maximum noise from construction equipment could be 67 and 70 dB. Noise levels would not exceed Solano County noise standards, but could result in a substantial temporary increase in ambient noise levels at the residences within 400 feet of the Project alignment. Temporary construction noise impacts in this reach would be potentially significant. The implementation of Mitigation Measure 3.6-1 would reduce temporary construction noise impacts. Since construction could be very close to residences and noise barriers may not be feasible, noise impacts would remain **significant and unavoidable**.

*Stevenson Bridge*

Construction Impact 3.6-2 could occur on this reach. There are rural residences located to the northwest of Stevenson Bridge in Yolo County approximately 150 feet from the Project alignment. Construction equipment would produce maximum noise levels of 70 dB when equipment is closest to the residences, which would result in a potentially significant impact. The implementation of Mitigation Measure 3.6-1 would reduce temporary construction noise impacts. Since construction could be very close to residences, and noise barriers may not be feasible, noise impacts would remain **significant and unavoidable**.

*Glide Ranch*

Construction Impacts 3.6-1 and 3.6-2 would occur on this reach. Several rural residential complexes lie 50 to 200 feet south of the Project alignment in Solano County. At these residences, maximum noise levels from heavy equipment could be 66 to 82 dB when used nearest to these homes. Noise levels would exceed Solano County noise standards and create a substantial temporary increase in ambient noise levels, resulting in a potentially significant impact. The implementation of Mitigation Measure 3.6-1 would reduce temporary construction noise impacts. Since construction could be very close to residences and noise barriers may not be feasible, noise impacts would remain **significant and unavoidable**.

*Nishikawa*

This reach contains no sensitive receptors in the Project vicinity. The effects of temporary construction noise in the reach would be **less than significant**.

*Olmo-Hammond-UCD*

This reach contains no sensitive receptors in the Project vicinity. Temporary construction noise in the reach would be **less than significant**.

*I-80 to Old Davis Road*

Construction Impacts 3.6-1 and 3.6-2 would occur on this reach. This reach contains one residence 550 feet to the south of Putah Creek alignment in Solano County. At this distance, maximum noise levels from heavy equipment would not exceed Solano County noise standards or result in a substantial temporary increase in ambient noise levels. Therefore, temporary construction noise impacts on this reach would be **less than significant**.

*Old Davis Road to Mace*

This reach contains no sensitive receptors in the Project vicinity. Temporary construction noise in the reach would be **less than significant**.

*Mace to Road 106A*

Construction Impact 3.6-2 could occur on this reach. This reach contains one large residence approximately 425 feet north of the Project alignment in Yolo County. Yolo County does not have a noise ordinance or other noise enforcement code at this time. At a distance of 425 feet, maximum noise from construction equipment would be 59 dB at this residence. Therefore, noise impacts in this reach would be **less than significant**.

*Road 106A to Yolo Bypass Wildlife Area*

This reach contains no sensitive receptors in the Project vicinity. Temporary construction noise in the reach would be **less than significant**.

**Table 3.6-4 Summary of Noise Impacts and Mitigation Measures**

<b>Sites</b>	<b>Impact 3.6-1 Temporary Construction Noise</b>	<b>Applicable Mitigation Measures</b>
NAWCA/Mariani	LTS	n/a
Duncan-Giovannoni	SU	MM 3.6-1
Winters Putah Creek Nature Park	LTS	n/a
505 E Channel Restoration	LTS	n/a
Warren Weed Control	SU	MM 3.6-1
Upper McNamara Pool	LTS	n/a
Lower McNamara Pool	LTS	n/a
Russell Ranch	SU	MM 3.6-1
MacQuiddy Lester	SU	MM 3.6-1
Stevenson Bridge	SU	MM 3.6-1
Glide Ranch	SU	MM 3.6-1
Nishikawa	LTS	n/a
Olmo-Hammond-UCD	LTS	n/a
I-80 to Old Davis Road	LTS	n/a
Old Davis Road to Mace	LTS	n/a
Mace to Road 106A	LTS	n/a
Road 106A to YBWA	LTS	n/a

Notes: NI = No Impact; LTS = Less than Significant; SU = Significant and Unavoidable.

