

## 3.9 Noise

This section supplements the analysis of noise in the Master Plan EIR (ESA, 2000; ESA, 2001), based on new information on construction equipment and locations and the potential operational noise impacts based on updated pump station design. The new information could result in a substantial increase in the severity of noise impacts as described in the Master Plan EIR. Therefore, the analysis of these impacts is supplemented in this Draft SEIR. Analysis in the Master Plan EIR that does not require updating is not addressed further in this section.

### 3.9.1 Setting

Noise principles are described in Section 4.9 of the Master Plan EIR (ESA, 2000). Noise levels are measured in decibels (dBA). While occasional or sudden noises are intrusive, the 24-hour average noise level is the most commonly used measure of the “ambient,” or background, noise environment. This average, when weighted for increased sensitivity of people to noise during the evening (7 pm to 10 pm) and nighttime (10 pm to 7 am) periods, is referred to as the Community Noise Equivalent Level (CNEL) (Ogden, 1996). For example, the CNEL would be 57 dBA for a receptor experiencing an actual constant noise level of 50 dBA over a 24 hour period.

Town policies related to noise are described in the General Plan (Ogden, 1996) and the Zoning Ordinance (Town of Windsor, 2000). For residential uses, the General Plan classifies noise levels up to a CNEL of 60 dBA as “normally acceptable”<sup>4</sup> for residential uses, and CNEL noise levels between 55 and 70 dBA as “conditionally acceptable”<sup>5</sup> for such uses. Above a CNEL of 70 dBA, such uses would be considered normally or clearly unacceptable with the noise environment (Ogden, 1996). For agriculture land uses such as those surrounding the Project site, noise levels up to CNEL 75 dBA are considered “normally acceptable”; noise levels between CNEL 70 and 80 dBA are “conditionally acceptable”; and levels between CNEL 75 and 85 dBA are considered “normally unacceptable” (Ogden, 1996).

The Town of Windsor Zoning Ordinance includes maximum (not CNEL) noise levels by receiving land use (land use on which the listener is located) and time of day (Town of Windsor, 2008). The exterior limits in residential areas and open space areas are 50 dBA during the nighttime (10:00 p.m. to 7:00 a.m.) and 55 dBA during the daytime (7:00 a.m. to 10:00 p.m.). For industrial/manufacturing lands, the exterior limit is 70 dBA (Town of Windsor, 2000). The Zoning Ordinance exempts from the noise limitations construction operations conducted by public utilities or their contractors which are deemed necessary to serve the best interests of the public and to protect the public health, safety, and welfare.

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<sup>4</sup> “Normally acceptable” means that specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirement.

<sup>5</sup> “Conditionally acceptable” means that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

Although the Project site is on land owned by the Town of Windsor, the surrounding properties are in unincorporated Sonoma County. A CNEL of 60 dBA is also the standard used by the County to determine if an area is impacted by noise (County of Sonoma, 1989). In addition, Sonoma County prohibits noise producing land uses from causing noise levels at noise sensitive areas that exceed 50 dBA during the day and 45 dBA at night. Higher noise levels are allowed if they occur for less than 30 minutes in an hour. The Sonoma County General Plan (County of Sonoma, 1989) suggests that exemptions for construction activities be considered in a noise ordinance; however, Sonoma County does not currently have a noise ordinance.

The Project site is surrounded primarily by open space and agricultural land, with a few scattered rural residences. The nearest two residences to the construction site are on agricultural lands located to the east approximately 150 feet and 300 feet from the edge of the construction site. The nearest residence to the pump station location is approximately 2,000 feet to the south across Trenton-Healdsburg Road and is separated from the pump station site by intervening topographic ridges. Another residence is located approximately 2,500 feet to the north of the pump station, on a hill and across Eastside Road. These distances to the nearest residences have been updated from the Master Plan EIR.

### 3.9.2 Standards of Significance

The Standards of Significance for noise were based on Appendix G of the CEQA Guidelines.

Significant impacts could occur if implementation of the Project would:

- Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project; or
- Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

### 3.9.3 Impacts and Mitigation Measures

#### **Impact 3.9-1: Construction of the Project facilities would result in temporary and localized noise impacts.**

*Analysis: Potentially Significant*

This is an update of Impact 4.9-1 in the Master Plan EIR (ESA, 2000). Construction would involve ground clearing activities, grading and excavation, material delivery and hauling, and other construction activities. Different types of construction equipment would predominate during different phases of construction. Equipment used during construction would be typical of land clearing and earthwork type activity: backhoe, wood chipper/grinder, compactor, crane, dozer, dump truck, generator, water truck, and others. Construction equipment noise levels are listed in Table 4.9-1 of the Master Plan Draft EIR (ESA, 2000). Noise levels at 100 feet for most equipment without controls beyond those normally used would range from 73 to 80 dBA; only trucks, at 85 dBA, are listed in Master Plan Draft EIR Table 4.9-1 with noise levels greater than 80 dBA. Noise levels at 100 feet

with controls (e.g., improved mufflers; equipment redesign; use of silencers, shields, shrouds, ducts, and/or engine enclosures) could typically be 5 to 10 dBA lower. No blasting or impact activities such as pile driving or aggregate crushing will be performed during construction.

Construction noise would be exempt under the Town of Windsor noise ordinance. Because the properties surrounding the Project site are located within the County jurisdiction, the County's noise standard of 60 dBA (CNEL) was used to evaluate impacts. Without use of additional controls, maximum construction noise at the nearest residence would be approximately 69 to 76 dBA. These noise levels would occur only when construction was occurring near the property line at the closest point to the noise sensitive property. With use of additional controls, construction noise at the nearest residence would be 5 to 10 dBA less. Staging areas, which will generate noise throughout construction, are located well away from any residences. In addition, due to the temporary nature of construction, normal construction hours between hours of 7 a.m. to 7 p.m. Monday through Friday and 8 a.m. to 7 p.m. on Saturday, and implementation of noise controls (see Mitigation Measure 3.9-1a), noise impacts would be less than significant. Mitigation Measure 3.9-1b is also included to minimize impacts from extended work hours, which may be required occasionally.

**Mitigation Measure 3.9-1a: Prepare and implement a Noise Control Plan during construction.**

To reduce daytime noise impacts due to construction, the Town shall require that the construction contractor prepare a Noise Control Plan that describes how he or she will implement measures to muffle or otherwise control noise from construction equipment through implementation of best management practices such as the following:

- Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers; equipment redesign; use of intake silencers, ducts, engine enclosures and/or acoustically-attenuating shields or shrouds) wherever feasible and necessary.
- Stationary construction noise sources shall be located as far from sensitive receptors as possible. If they must be located near sensitive receptors, they shall be muffled to the extent feasible and enclosed within temporary sheds.
- Construction noise exposure shall be limited to the degree feasible at the nearest residences.

**Mitigation Measure 3.9-1b: Notify nearby property owners if extended work hours are required.**

The Town will provide notice to nearby property owners as soon as it is determined that extended work hours are required. To the degree feasible, notice will be provided at least 24 hours in advance.

*After Mitigation: Less than Significant*

**Impact 3.9-2: Operation of the pump station could result in noise increases in the vicinity of the Project.**

*Analysis: Less than Significant*

This is an update of Impact 4.9-2 in the Master Plan EIR (ESA, 2000). The pump station is the only component of the Project that would generate long-term operational noise. The pump station will consist of multiple pumps enclosed in a single-story pumphouse. The pumps may run any hour of the day, any day of the week. The multiple pumps operating concurrently, if not enclosed, would generate noise levels of less than 85 dBA at 25 feet, 79 dBA at 50 feet, and 73 dBA at 100 feet. The nearest residences to the project are located approximately 1,000 feet southwest and north of the project site. The noise at this location from the pumps, if not enclosed, would be less than 43 dBA (equivalent to a CNEL of 50 dBA if operated for 24 hours), taking into account geometric spreading, atmospheric attenuation, and ground effects. In addition, the pumps will be fully enclosed by a concrete, roofed structure, so actual noise levels would be considerably less. The dam and surrounding hills would block pump station noise from reaching residences to the east of the Project site. Therefore, a CNEL noise level of 60 dBA (consistent with Town's and the County's General Plan noise requirements) and a nighttime noise level of 50 dBA (consistent with the Town's Zoning Ordinance) or 45 dBA (consistent with the County's General Plan) would be readily maintained at the nearest residential property line.

*Mitigation: None required*

### 3.9.4 References

- County of Sonoma. 1989. *Sonoma County General Plan*. Public Works Department.
- Environmental Science Associates (ESA). 2000. *Water Reclamation Master Plan for Treatment, Storage and Disposal Draft Environmental Impact Report*. Prepared for the Town of Windsor. October.
- \_\_\_\_\_. 2001. *Water Reclamation Master Plan for Treatment, Storage and Disposal Final Environmental Impact Report*. Certified by the Town of Windsor on February 7, 2001 and compiled in May 2001.
- Ogden Environmental & Energy Services Co. (Ogden). 1996a. *Town of Windsor General Plan – 2015*. Adopted by Town of Windsor Planning and Building Department. March.
- Town of Windsor, Planning and Building Department. 2008. *Town of Windsor Zoning Ordinance*. Table 3-1. Adopted July 5, 2000. Updated March.