The City of Biggs is free of excessive and unnecessary noise disturbances. Residents and visitors are able to enjoy indoor and outdoor spaces without the intrusion of unhealthy levels of noise and noise generating uses are able to operate without unnecessary encroachment from noise sensitive uses. Noise mitigation efforts focus on site and building design and discourage walls and barriers.

I. INTRODUCTION

The Noise Element is a legally required element of the General Plan. The purpose of the Element is to identify the major noise sources and noise-related concerns in Biggs, establish noise standards and to outline the goals, policies, actions of the City addressing noise.

Noise is typically defined as unwanted sound that interferes with an individual's ability to perform a task or enjoy an activity. From a planning perspective, noise control focuses on two primary concerns: (1) preventing the introduction of new noise-producing uses in noise-sensitive areas; and (2) preventing the encroachment of noise-sensitive uses into existing noise-producing areas. Some facilities, such as airports and certain industrial operations, inherently generate noise, and the encroachment of noise-sensitive uses can jeopardize their continued operation. Therefore, some noise-generating uses need to be protected from the development of incompatible uses in their vicinity. Working to balance the compatibility of uses and reduce the impact of significant sources of noise will improve the quality of life for Biggs residents.

Overview

Noise level compatibility varies with numerous factors, including:

- Background noise levels
- Intensity of noise source
- Character of noise source
- Frequency of noise
- Timing of noise (day versus night)
- Sensitivity of adjacent land uses

The information presented in this element is based on various sources, including field measurements of community noise levels, observations of existing traffic levels, railroad activity data provided by the Union Pacific Railroad, existing City land uses and projections for future land uses, and transportation (road and rail) activities.

The findings of the Noise Element have aided in the development of the General Plan Land Use Diagram. Where possible, land uses have been arranged to avoid exposure of sensitive land uses to excessive noise levels.

II. Issues and Opportunities

This section of the element identifies primary noise issues raised during the outreach efforts for the General Plan Update and explains how they are addressed. Policy guidance can be found in the Goals, Policies, and Actions section of this element. An explanation of specialized terms used in this element can be found in the General Plan Glossary (**Appendix A**).

Land Use Compatibility

One factor in determining and managing the compatibility of different land uses is the need to separate noise-sensitive uses from uses that generate significant amounts of noise. A primary purpose of this element is to establish standards that can be used to equitably manage the noise compatibility of land uses. For example, standards may prevent noise-generating uses such as industrial operations or major roadways from developing near residences or outdoor recreation areas. Conversely, new noise-sensitive uses may be prevented from locating near existing noise-generating uses to avoid an incompatible situation. Since the General Plan promotes a compact urban form and the integration of different land uses, there is a need for the Noise Element to establish standards that support a mix of uses in close proximity to one another.

Transportation-Related Noise

The inclusion of noise mitigation measures to protect residents from unhealthy levels of transportation-related noise exposure should be incorporated into projects. This issue primarily concerns development near the Union Pacific Railroad and State Route 99 and along the city's larger arterial roadways. Noise standards along these corridors must be met and maintained over time without unnecessary or undesirable construction of visually obtrusive and community-dividing sound walls. This element establishes noise standards to attenuate noise to levels that minimize disruption to noise-sensitive uses, and it includes policies and actions that address noise compatibility issues.

Railroad Noise

By far, the greatest noise generator in Biggs is the Union Pacific Railroad (UPRR) railway. The lines pass through the western edge of the downtown area, separating the western portion of the city. Originally serving primarily agricultural interests, the tracks are now part of the major rail corridor that connects the Pacific Northwest with southern California. Approximately 23 trains pass through Biggs daily, and rail activity is expected to increase in the future. This element addresses train-generated noise by establishing standards for noise attenuation and by providing policy guidance for the use of land adjacent to the railroad tracks.

III. Noise Characteristics and Measurements

This section of the element explains noise characteristics and measurements used for the noise standards in the Goals, Policies, and Actions section of this element.

Noise Characteristics

Noise in a community is generated by a number of sources including transportation-related sources, such as automobiles, trucks, trains, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The human response to environmental noise is subjective and varies considerably from one individual to another. Noise in a community has often been cited as a health concern, not necessarily in terms of actual physiological damage, such as hearing impairment, but in terms of its impact on general well-being and contribution to excessive stress, annoyance, and sleep disturbance.

Noise-sensitive land uses are those for which noise exposure could cause health-related risks to individuals or where quiet is essential to the use. Land uses identified in Biggs as being noise-sensitive include most types of residences, schools, parks, and places of assembly, such as churches and meeting halls. Residential dwellings are of primary concern because of the impacts associated with exposure of individuals to potentially high interior and exterior noise levels.

Outdoor activity areas are the portions of parcels where outdoor activities generally occur, such as residential patios and yards or outdoor instructional areas. These exterior activity areas are exposed to noise with fewer structural elements such as walls and windows for noise attenuation. Public land uses such as historic sites, cemeteries, and recreation areas may also be sensitive to high exterior noise levels.

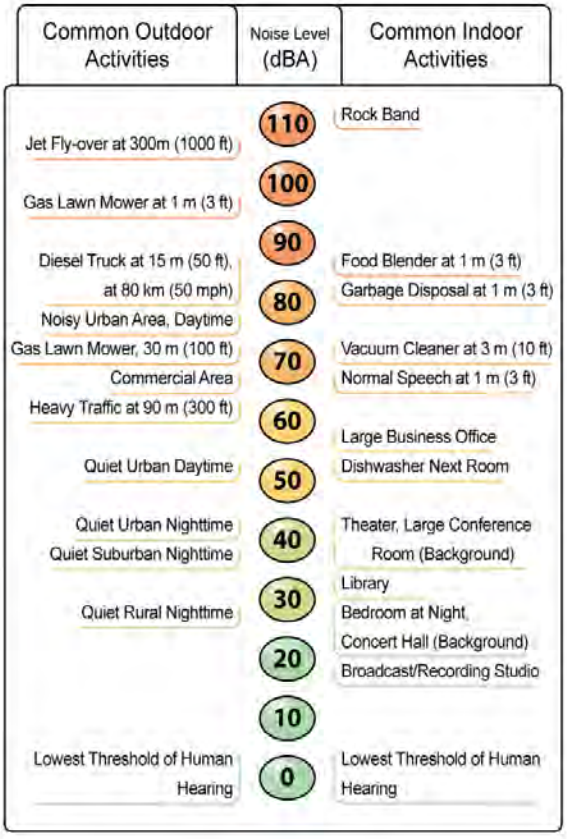
The characterization and quantification of noise levels and their effects on people typically include the use of technical terminology. While an in-depth explanation of noise terminology is not included in this element, a summary of industry standards and terms used in this chapter is provided below.

Noise Measurement

To approximate the sensitivity of the human ear to changes in frequency, sound is usually measured in what is referred to as A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA.

The intensity of noise fluctuates over time, and several measurements of time-averaged noise levels are used to describe noise characteristics for different circumstances. The following acoustical measurements are commonly used:

- **dB – Decibel.** A measure, on a logarithmic scale, of the amplitude of sound. On the decibel scale, the smallest audible sound (near total silence) is 0 db. A sound 10 times more powerful is 10 dB. A sound 100 times more powerful is 20 dB. The A-weighted decibel, commonly abbreviated as dBA, relates the measurement of sound to the sensitivity of the human ear.
- **L_{eq} – Energy Equivalent Noise Level.** A single measure, in dBA, of average acoustic energy level used to represent fluctuating sound levels over a specific period of time.
- **L_{min} – Minimum Noise Level.** Represents the minimum instantaneous noise level during a specific period of time.
- **L_{max} – Maximum Noise Level.** Represents the maximum instantaneous noise level during a specific period of time.
- **SEL – Single Event Level**. Measures the total acoustic energy of a single noise event, such as an aircraft overflight, compressed into a period of one second. Because the SEL is normalized to a one-second period, it will almost always be larger in magnitude than the L_{max} for the event.
- **DNL or L_{dn} – Day-Night Average Noise Level.** A 24-hour L_{eq} with a 10 dBA "penalty" for noise events that occur during the noise-sensitive hours between 10:00 p.m. and 7:00 a.m.
- **CNEL – Community Noise Equivalent Level.** The CNEL is similar to the L_{dn} described above, but with an additional 5 dBA penalty for noise



events that occur between the hours of 7:00 p.m. and 10:00 p.m. The calculated CNEL is typically approximately 0.5 dBA higher than the calculated L_{dn}.

- **Hourly L_2 – The dBA level which is exceeded during 2 percent, or approximately 1 minute, of a given hour**. The noise level descriptor L_{50} may also be used, which is the noise level exceeded during 50 percent (or 30 minutes) of a one-hour period.
- **L_n – The dBA level exceeded for n percent of a given time period.** For instance, L2 is the level exceeded for 2 percent of the time and L50 is the level exceeded 50 percent of the time. The commonly used values of n are 2, 10, 50, and 90.
- **Noise-Sensitive Land Uses – Land uses for which noise exposure could cause health-related risks to individuals or where quiet is essential to the use.** Land uses identified in Biggs as being noise-sensitive include residences, nursing homes, day-care centers, hospitals, schools, parks, and places of assembly, such as theaters, churches, and meeting halls.

Noise Sources

This section of the element identifies both stationary and transportation noise sources.

Ambient Noise Levels

Several sources of noise are located in the Biggs area. These sources include noise generated from stationary activities (e.g., commercial and industrial uses), aircraft operations, and traffic on major roadways and highways. Short-term (10-minute) noise level measurements were conducted on September 19, 2008, and April 3, 2009, for the purpose of documenting and measuring the existing noise environment in various areas in and around the City of Biggs. Ambient noise measurement locations and corresponding measured values (i.e., L_{eq} and L_{max}) are summarized in **Table N-1**. Based on the monitoring conducted, average-hourly daytime noise levels within the city generally range from the lower end of approximately 50 dB to a higher end of approximately 75 dB, dependent primarily on distance from major noise sources. Major stationary and transportation noise sources noted within Biggs are discussed separately, as follows.

Noise-Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses that would result in noise exposure that could cause health-related risks to individuals. Places where quiet is essential are also considered noise-sensitive uses. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other land uses such as parks, historic sites, cemeteries, and recreation areas are also considered sensitive to increases in exterior noise levels. School classrooms, places of assembly, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

TABLE N-1: AMBIENT NOISE LEVELS

	Location	Monitoring Period	Noise Level (dBA)	
			L_{eq}	L_{max}
1	SunWest Milling Company 507 Bannock Street – Northern Boundary	9/19/2008, 12:10–12:20 p.m. 4/3/2009, 9:30–9:40 a.m.	54.0 51.2	68.2 64.8
2	SunWest Milling Company 507 Bannock Street – Eastern Boundary	9/19/2008,12:40–12:50 p.m. 4/3/2009, 9:50–10:00 a.m.	75.8 76.4	69.4 70.2
3	SunWest Wild Rice 2875 Eighth Street – Eastern Boundary	9/19/2008, 13:00–13:10 p.m.	64.0	66.5
4	Red Top Rice 3200 Eighth Street – Western Boundary	9/19/2008, 13:35–13:45 p.m. 4/3/2009, 11:00–11:10 a.m.	71.2 70.4	73.0 73.4
5	Red Top Rice 3200 Eighth Street – Eastern Boundary	4/3/2009, 10:25–10:40 a.m.	71.4	71.8
7	Corner of Seventh and B Streets	9/19/2008, 14:35–14:45 p.m.	56.9	70.2
8	Corner of Fourth and D Streets	9/19/2008, 15:00–15:15 p.m.	52.1	68.4

Note: Ambient noise measurements were conducted using a Larson Davis model 820 sound-level meter placed at a height of approximately 4.5 feet above the ground surface.

Noise Sources

Noise issues associated with stationary and transportation sources in the Planning Area are discussed below.

Transportation Noise Sources

Union Pacific Railroad

The Union Pacific Railroad (UPRR) tracks extend in a north-south direction, parallel to and just east of Eighth Street. The UPRR is used for both freight transport and Amtrak passenger service. Approximately 18 to 20 freight trains and two Amtrak passenger trains travel along this rail line on a daily basis. The number of freight trains traveling along this segment can vary from day to day, depending on demand, and there are currently no hourly limitations pertaining to freight train travel. Amtrak passenger trains typically run during the early morning hours.

Noise levels generated by trains can vary depending on numerous factors, including train speed, number of engines used, track conditions (e.g., welded vs. jointed), the condition of train wheels, and shielding provided by intervening terrain. Additional factors, such as the sounding of the train horns as well as the operation of roadside signaling devices, can also contribute to overall noise levels. Depending on such factors, wayside noise levels associated with train passbys can reach levels of up to 110 dBA L_{max} at 50 feet from the track centerline (FTA 2006). Noise measurements of train noise levels were conducted on September 19, 2008, near the B Street crossing. Based on noise measurements conducted, wayside train noise levels, with roadside warning devices and train horns sounding, ranged from approximately 94 to 97 dBA L_{max} at 50 feet from the track centerline.

The Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Guidelines* (FTA 2006) was used for the calculation of wayside noise levels generated by the trains traveling along the UPRR corridor. Based on the modeling conducted, the predicted 60 dBA CNEL noise contour for the UPRR corridor would extend to approximately 463 feet from the track centerline without the sounding of train warning horns and to approximately 1,356 feet with the sounding of train horns. It is important to note that predicted noise levels do not include shielding or reflection of noise from intervening terrain or structures. Although these predicted noise contours are not considered site-specific, they are useful for determining potential land use conflicts.

Roadways

Vehicle traffic on area roadways also contributes to the ambient noise environment within the city. Roadway noise is primarily created during the stopping and starting of vehicles due to acceleration and deceleration, which typically occurs at intersections. Roadways with high levels of heavy-duty truck traffic are of particular concern. Major roadways within the City of Biggs include B Street, Eighth Street, W. Biggs Gridley Road, and W. Rio Bonito Road. Existing traffic volumes have not yet been provided; therefore, associated noise levels for area roadways have not been calculated. Currently, traffic levels and roadway volumes within Biggs are considered to be good, and traffic-related noise is not considered substantial. For more information, see the Circulation Element of this General Plan.

Stationary Sources

Stationary noise sources include industrial and commercial land uses. Many industrial processes produce noise, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by federal and state employee health and safety regulations (i.e., regulations of the Occupational Safety and Health Administration of the U.S. Department of Labor [OSHA] and the California Division of Occupational Safety and Health

[Cal-OSHA]). Exterior noise levels that affect neighboring parcels are typically subject to local standards. Commercial, recreational, and public facility activities can also produce noise that may affect adjacent noise-sensitive land uses. These noise sources can be continuous or intermittent and may contain tonal components that are annoying to individuals who live nearby. For instance, emergency-use sirens and backup alarms are often considered nuisance noise sources, but may not occur frequently enough to be considered incompatible with noise-sensitive land uses. In addition, noise generation from fixed noise sources may vary based on climate conditions, time of day, and existing ambient noise levels.

From a land use planning perspective, fixed-source noise control issues focus on two goals: (1) preventing the introduction of new noise-producing uses in noise-sensitive areas; and (2) preventing encroachment of noise-sensitive uses on existing noise-producing facilities. The first goal can be achieved by applying noise performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses near noise-producing facilities include mitigation measures to ensure compliance with noise performance standards. Each of these goals stresses the importance of avoiding the location of new uses that may be incompatible with adjoining uses.

Commercial and Industrial Uses

Noise sources commonly associated with commercial and industrial uses often include the operation of power tools, material handling equipment (e.g., forklifts), and stationary equipment (e.g., compressors, compactors), as well as noise associated with the loading and unloading of materials from delivery trucks. Noise levels from commercial and industrial uses are dependent on numerous factors and can vary substantially, depending of the specific activities conducted. For instance, noise associated with neighborhood commercial activities may be indiscernible from the ambient noise level, whereas noise levels associated with major industrial activities involving the use of heavy off-road equipment can generate high noise levels that may result in increased levels of annoyance and activity interference at nearby noise-sensitive land uses. For this reason, noise generated by commercial and industrial uses and impacts to nearby noise-sensitive land uses should be evaluated on a project-by-project and site-specific basis.

Within and near the City of Biggs, the primary fixed noise sources are related to the rice operations of milling and drying along the western edge of the city. Discussion of the two largest and most significant noise-producing rice milling/drying operations is presented below.

SunWest Milling Company

The SunWest Milling Company rice mill is located at 507 Bannock Street. SunWest Milling Company also operates a wild rice mill located at 2875 Eighth Street. Significant noise-producing equipment at these facilities is predominantly associated with the operation of baghouse filters and heavy truck traffic, as well as rice milling and drying equipment. The plant operations are dictated by demand, and it is not unusual for the plants to operate 24 hours per day. The facilities typically generate approximately 45 truck trips per day, and the truck drivers are

advised to avoid residential streets to the extent practical. The plant is also served by approximately three railroad operations per week (Williams 2009).

Noise measurements of the plant in operation were conducted on September 19, 2008, and April 3, 2009 (refer to **Table N-1**). Noise measurements were conducted along the northern and eastern boundaries of the plant. Measured average-hourly noise levels along the northern boundary of the plant ranged from approximately 51 to 54 dB L_{eq}. Existing residential land uses located along the northern boundary of the plant are largely shielded from on-site noise sources by intervening structures. Along the eastern boundary of the plant, operational noise levels measured 64 to 76.4 dBA L_{eq}. The highest measured noise level of 76.4 dBA L_{eq} was associated with the simultaneous operation of three baghouses located near the eastern boundary of the SunWest Milling Company plant. Assuming an operational noise level of 76 dBA L_{eq} at 60 feet, the predicted 50 dBA L_{eq} noise contour would extend to approximately 699 feet from the plant at locations located within the line of sight of the baghouses. The SunWest wild rice plant operates two baghouses located at the southwestern boundary of the plant. Based on the measurements conducted and assuming that both baghouse filters were operating simultaneously, the calculated 50 dBA L_{eq} noise contour would extend to a distance of approximately 595 feet at locations located within the line of sight of the baghouses. Because of the directional aspects of on-site noise sources and shielding provided by on-site structures, operational noise levels at off-site locations are highly variable. Operational noise levels and distances to predicted noise contours will vary depending on these and various other factors, including the specific operational activities being conducted, on-site sources of primary concern and orientation to off-site receptors, and meteorological conditions.

Red Top Rice

The Red Top facility dries and stores rice. Primary noise sources consist of fans, motors, related drying equipment, and heavy truck traffic. The facility also operates three baghouse filters, which also contribute to on-site operational noise levels. There is no railroad activity associated with the operations of the Red Top facility. Hours of operation vary according to demand. During the harvest season (September through mid-November), approximately 150 trucks per day bring in rice. During this period, the plant reportedly operates 24 hours per day. Between November and August, there are reportedly about 4,500 truckloads out of the plant. The plant manager reports no current plans for expansion (Cribari 2009).

Noise measurements of the plant in operation were conducted on September 19, 2008, and April 3, 2009 (refer to **Table N-1**). Noise measurements were conducted along the western and eastern boundaries of the plant. Measured average-hourly noise levels at the western and eastern plant boundaries measured approximately 71 dBA L_{eq}. Based on the measurements conducted, the predicted 50 dBA L_{eq} noise contour would extend to a maximum distance of approximately 1,542 feet from the plant at locations located within the line of sight of major on-site noise sources. Because of the directional aspects of on-site noise sources and shielding provided by on-site structures, operational noise levels at off-site locations are highly variable. Operational noise levels and distances to predicted noise contours will vary depending on these and various other factors, including the specific operational activities being conducted, on-site sources of primary concern and orientation to off-site receptors, and meteorological conditions.

Construction Activities

Construction noise typically occurs intermittently and varies depending on the nature or phase (e.g., demolition/land clearing, grading and excavation, erection) of construction. Noise generated by construction equipment, including earthmovers, material handlers, and portable generators, can reach high levels. The U.S. Environmental Protection Agency (EPA) has found that the noisiest equipment types operating at construction sites typically range from 88 dBA to 91 dBA L_{eq} at 50 feet. Typical operating cycles may involve 2 minutes of full power, followed by 3 or 4 minutes at lower settings. Although noise ranges were found to be similar for all construction phases, the building construction phase tended to be less noisy (i.e., 79 dBA to 88 dBA L_{eq} at 50 feet), when compared to the initial site preparation and grading phases (EPA 1971).

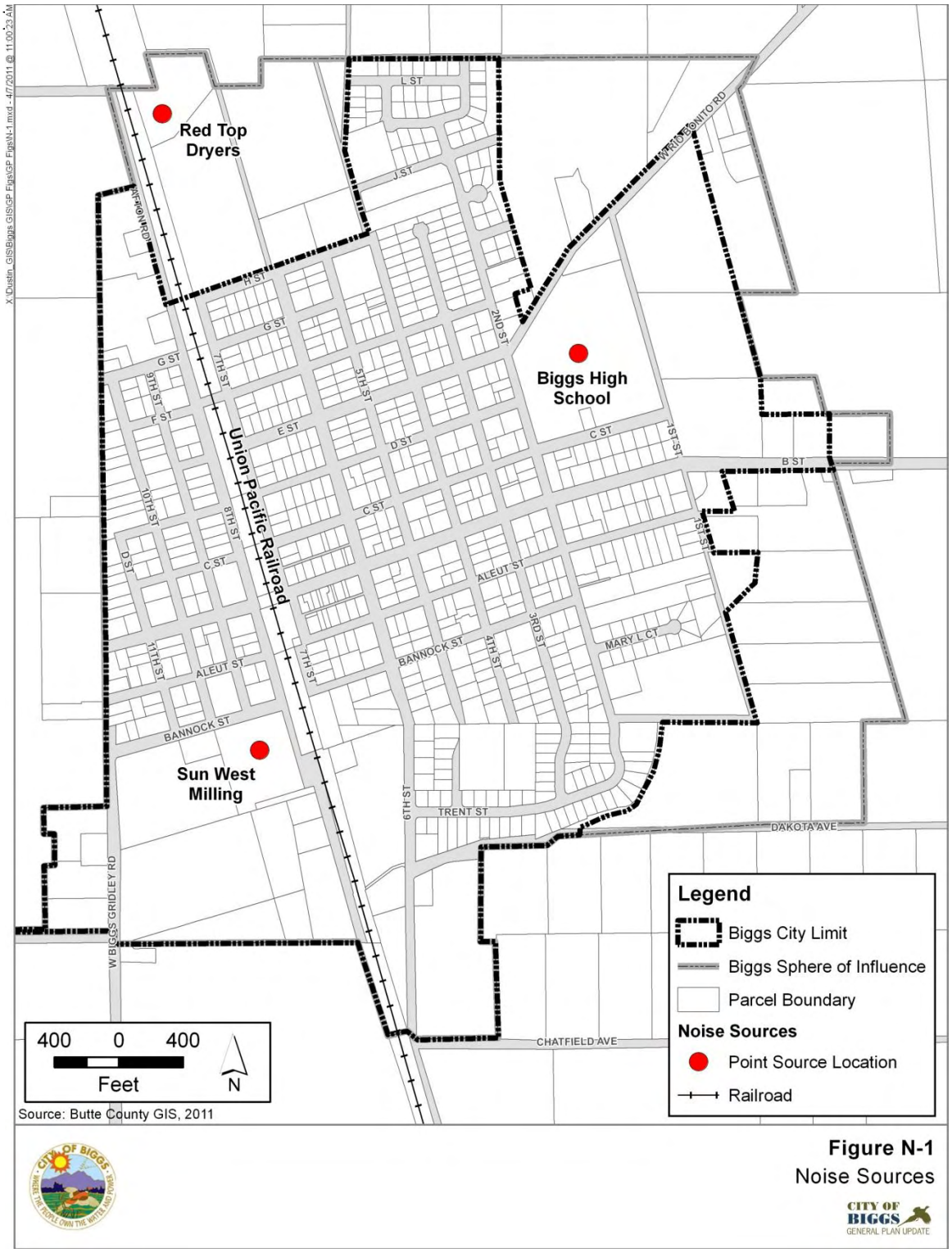
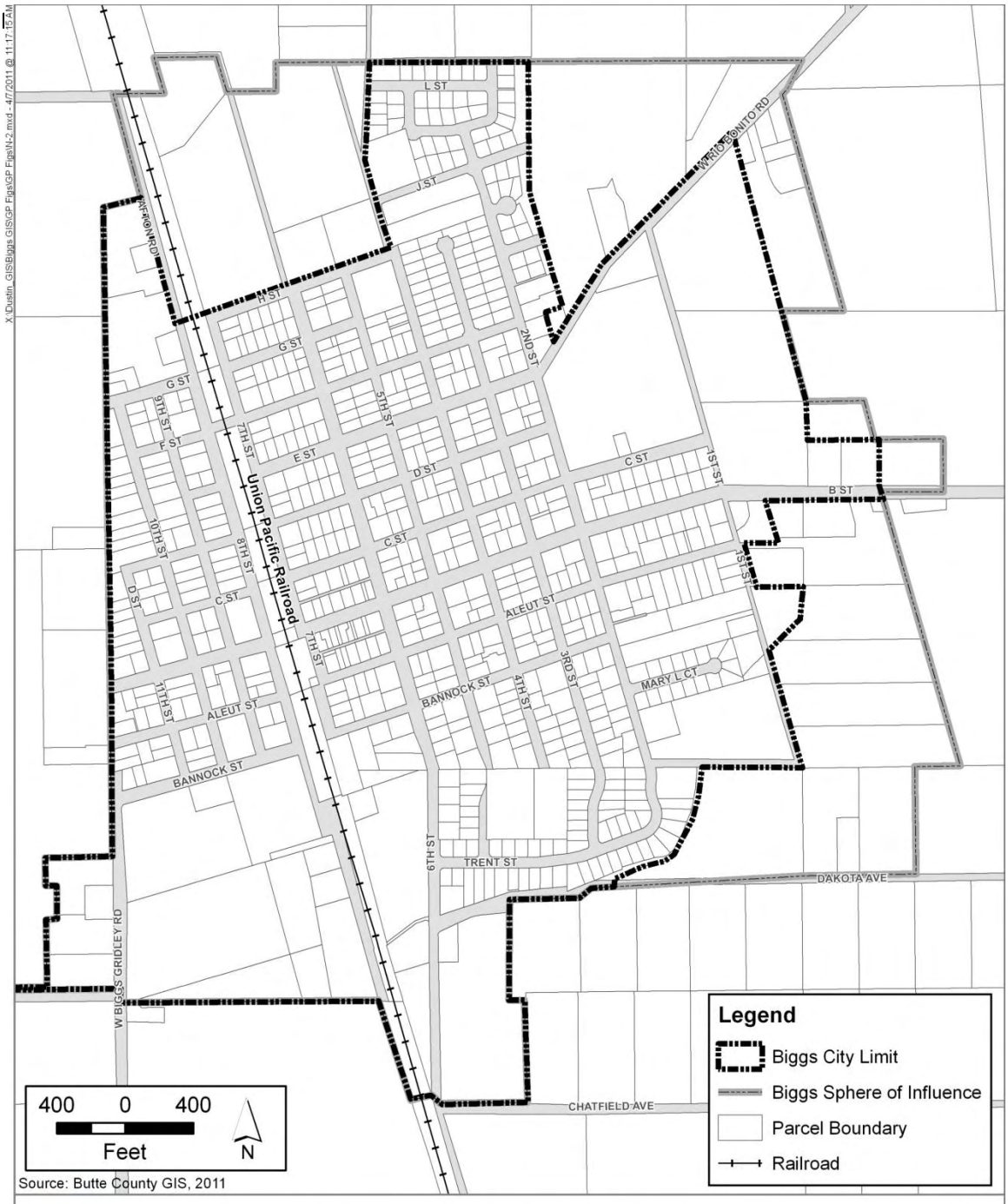


Figure N-1
Noise Sources



Placeholder Graphic

Figure N-2
Noise Contours

IV. Goals, Policies, and Actions

Goal N-1: Protect noise-sensitive uses from uses that generate significant amounts of noise to benefit public health, welfare, and the local economy.

Goal N-2: Encourage noise attenuation methods that support the goals of the General Plan.

Goal N-3: Promote and enforce the City's noise standards.

GOAL N-1: PROTECT NOISE-SENSITIVE USES FROM USES THAT GENERATE SIGNIFICANT AMOUNTS OF NOISE TO BENEFIT PUBLIC HEALTH, WELFARE, AND THE LOCAL ECONOMY.

Policy N-1.1 (New Development and Transportation Noise) – New development of noise-sensitive land uses should not be permitted in areas exposed to existing or planned transportation noise sources that exceed the levels specified in Table N-2, unless the project design includes measures to reduce exterior and interior noise levels to those specified in Table N-2.

TABLE N-2: MAXIMUM ALLOWABLE NOISE LEVELS FROM TRANSPORTATION NOISE SOURCES

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Interior Spaces	
		L_{dn}/CNEL, dB	L_{eq}, dB[2]
Residential	65 [3]	45	–
Transient Lodging	–	45	–
Hospitals, Nursing Homes	65 [3]	45	–
Theaters, Auditoriums, Music Halls	–	–	35
Churches, Meeting Halls	65 [3]	–	40

Land Use	Outdoor Activity Areas[1] Ldn/CNEL, dB	Interior Spaces	
		L_{dn}/CNEL, dB	L_{eq}, dB[2]
Office Buildings	–	–	45
Schools, Libraries, Museums	65 [3]	–	45
Playgrounds, Neighborhood Parks	70	–	–

Notes:

1. *Noise standards are to be applied at outdoor activity areas with the greatest exposure to the noise source. When it is not practical to mitigate exterior noise levels at the patios or balconies of multi-family dwellings, a common area or on-site park may be designated as the outdoor activity area. For noise-sensitive land uses that do not include outdoor activity areas, only the interior noise standard shall apply.*
2. *As determined for a typical worst-case hour during periods of use.*
3. *Where it is not possible to reduce noise in outdoor activity areas to 65 dB Ldn/CNEL or less using all feasible noise reduction measures, an exterior noise level of up to 70 dB Ldn/CNEL may be allowed provided that interior noise levels are in compliance with this table.*

Policy N-1.2 (New Development and Non-Transportation Noise) – New development of noise-sensitive land uses should not be permitted in areas exposed to existing non-transportation noise sources that exceed the levels specified in Table N-3, unless the project design includes measures to reduce exterior noise levels to the unadjusted levels specified in Table N-3.

TABLE N-3: MAXIMUM ALLOWABLE EXTERIOR NOISE LEVELS FROM NON-TRANSPORTATION SOURCES

Noise Level Descriptor (dBA)	Exterior Noise Level (dBA)	
	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Average-Hourly Noise Level (L_{eq})	55	50
Intermittent Noise Level (L_{2} or L_{max})	75	65

Notes:

1. *Noise levels shall be lowered by 5 dB for simple tone noises, for noises consisting primarily of speech or music, or for recurring impulsive noises. Noise-level standards do not apply to mixed-use residential units established in conjunction with industrial or commercial uses provided interior noise levels remain below 45 dB Ldn/CNEL.*
2. *In areas where the existing ambient noise level exceeds the established daytime or nighttime standard, the existing level shall become the respective noise standard and an increase of 3 dBA or more shall be significant. Noise levels shall be reduced 5 dBA if the existing ambient hourly Leq is at least 10 dBA lower than the standards.*
3. *Noise standards are to be applied at outdoor activity areas with the greatest exposure to the noise source. When it is not practical to mitigate exterior noise levels at patio or balconies of multi-family dwellings, a common area or on-site park may be designated as the outdoor activity area.*

Policy N-1.3 (Acoustical Analysis) – Where proposed projects are likely to expose noise-sensitive land uses to noise levels exceeding the City's standards, require an acoustical analysis as part of environmental review so that noise mitigation measures may be identified and included in the project design. The requirements for the content of an acoustical analysis are outlined in Table N-4.

TABLE N-4: REQUIREMENTS FOR AN ACOUSTICAL ANALYSIS

An acoustical analysis prepared pursuant to the Noise Element shall:
A. Be the financial responsibility of the applicant.
B. Be prepared by a qualified person experienced in the fields of environmental noise assessment and architectural acoustics.
C. Include representative noise-level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
D. Estimate existing and projected cumulative (20 years) noise levels in terms of L_{dn}, CNEL, and the standards of **Table N-1** or **Table N-2**, as applicable, and compare those levels to the adopted policies of the Noise Element. Where the noise source consists of intermittent single events, address the impact on sleep disturbance.
E. Recommend appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element, giving preference to site planning and design over mitigation measures that require the construction of noise barriers or structural modifications to buildings which contain noise-sensitive land uses.
F. Estimate noise exposure after the prescribed mitigation measures have been implemented.
G. Describe a post-project assessment program that could be used to evaluate the effectiveness of the proposed mitigation measures.

Policy N-1.4 (Roadway Improvement Projects) – Where proposed roadway improvement projects are likely to expose noise-sensitive land uses to noise levels exceeding the standards in Table N-2 or an increase of 10 dB L_{dn} or more in ambient noise levels, conduct an acoustical analysis to determine the level of impacts and to identify feasible noise mitigation measures that could be included in the project design to minimize impacts.

Action N-1.4.1 (Roadway Project Significance Criteria) – For roadway improvement projects where an acoustical analysis demonstrates that it is not practical to reduce traffic noise levels to be consistent with Table N-2, the following criteria will be used as a test of significance for the environmental review:

- Where existing traffic noise levels are less than 65 dB L_{dn} in the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

- Where existing traffic noise levels range between 65 and 70 dB L_{dn} in the outdoor activity areas of noise-sensitive uses, a +4 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

- Where existing traffic noise levels are greater than 70 dB L_{dn} in the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in noise levels due to a roadway improvement project will be considered significant.

Policy N-1.5 (Proposed Projects Near Railroads) – Require site-specific noise studies for noise-sensitive projects which may be affected by railroad noise, and incorporate noise attenuation measures into the project design to reduce any impacts to the levels specified in Table N-2.

Policy N-1.6 (Construction Activity) – Utilize standards in the Municipal Code to address issues related to the timing and duration of construction activity.

Action N-1.6.1 (Construction Hours) – Consider the establishment of a construction noise ordinance or standards to regulate hours of construction to the hours of 7:00am to 7:00pm on weekdays and 8:00am to 5:00pm on weekends with exception for emergency repair work..

Action N-1.6.2 (Temporary Construction Noise) – Consider the effects of temporary construction related noise activities during the project review process and incorporate noise mitigation techniques to include movement of equipment staging areas, screening of portable noise sources, limits on amplified sound devices and use of noise baffling and reducing technologies.

GOAL N-2: ENCOURAGE NOISE ATTENUATION METHODS THAT SUPPORT THE GOALS OF THE GENERAL PLAN.

Policy N-2.1 (Well-Designed Noise Mitigation) – Utilize effective noise attenuation measures that complement the Community Design Element's goals.

Action N-2.1.1 (Noise Control Measures) – Limit noise exposure through the use of insulation, building design and orientation, staggered operating hours, and other

techniques. Utilize physical barriers such as landscaped sound walls only when other solutions are unable to achieve the desired level of mitigation.

Action N-2.1.2 (Transportation Agencies) – As necessary, actively consult with local, state and regional transportation agencies to address noise concerns impacts the City and work to incorporate noise reduction elements in projects both inside and near the City.

Policy N-2.2 (Partners in Noise Reduction) – Consult with public and private organizations to encourage reduction of the noise levels of activities that impact large portions of the community.

Action N-2.2.1 (Railroad Warning Systems) – Consult with the Union Pacific Railroad to investigate the cost, safety, and feasibility of implementing alternative railroad warning systems and safety measures that reduce the use of train horns at City approaches while still meeting public safety objectives.

Action N-2.2.2 (Biggs Unified School District) – Consult with the Biggs Unified School District to ensure that amplified sound and school activities does not unduly impact City residences.

Action N-2.2.3 (Noise Generating Uses) – Maintain an active dialogue with Sunwest Milling, RedTop Mill and other large noise source generators to identify activities or time periods when noise may exceed normal volumes and utilize City resources to provide informaiton of such events to the public.

GOAL N-3: PROMOTE AND ENFORCE THE CITY'S NOISE STANDARDS.

Policy N-3.1 (City Noise Control Program) – Maintain a noise enforcement program to identify and resolve problems concerning noise in the community.

Action N-3.1.1 (Noise Program Duties) – Enforce the City's Noise Ordinance by processing complaints, conducting on-site testing of noise sources, and sharing information on the effects of noise issues in the community.

Action N-3.1.2 (Street Noise Environment) – Periodically assess the noise levels associated with city streets by reviewing traffic count data as an indication of increasing traffic noise.

Action N-3.1.3 (Communication and Cooperation) – As necessary, communicate and cooperate with the Butte County Development Services Department to address noise related issues occurring outside of the City to address potential noise impacts on City residents.