

VIII. NOISE ELEMENT

1. BACKGROUND AND FINDINGS: GENERAL

The intent of the Noise Element is to provide a framework for evaluating sound in the community, both qualitatively and quantitatively, and to set forth noise reduction or noise suppression policies and programs. This is done by describing the current local environment of sounds, identifying and measuring local noise sources, identifying and mapping noise-sensitive land uses, projecting future noise levels, and prescribing policies and programs for achieving the city's noise-control goals. The objectives are to minimize exposure of local citizens to excessive noise and to preserve the unique low-ambient noise levels of the Point Arena soundscape.

Point Arena is characterized by its citizens as a quiet town. It is a small rural community, with sound levels at different locations inside the city limits ranging from very quiet to moderately loud.

In this predominantly quiet environment are the following esteemed features of the local soundscape: the sound of winter storm surf rolling up from Arena Cove; the tolling of the off-shore bell buoy; a rich variety of birdsong; the lowing cattle in nearby pastures; water flowing over rocks in Arena Creek; the peal of morning Church bells; the immediacy and personal involvement of emergency sirens from ambulances and fire trucks.

Of course, there are also some unpleasant noises: heavy truck traffic noises on Highway 1 in particular, and along Riverside Drive, unattended barking dogs, and, at times, noises emanating from the industrial area.

The small, quiet nature of the town produces a low level of sound measurement (technically described as "low ambient noise level"), which, in turn, makes it noticeably susceptible to incremental increases in sound levels. Point Arena citizens appreciate and enjoy this very low ambient sound level, which compares very favorably to most urban areas.

It is so quiet at night that the loudest sound is the surf at Arena Cove, which is approximately one mile from Downtown. The most prominent sources of noticeable noise are the Highway 1 corridor (Main Street and School Street), truck traffic on Riverside Drive, and the industrial site on Riverside Drive east of Downtown. The only other notable source of noise is the sound made by people congregating at night along Main Street where the theater and several restaurants are located. Noise from bands/ jukeboxes can be heard when bar doors are opened. In many other communities such noises would not be significant, but they are noticeable in Point Arena primarily because the night-time background noise level is quite low (approximately 20-25 dBA).

In this context, individual sounds or noises have greater contrast, and as ambient levels rise, the quieter features of the soundscape are lost. The local soundscape characterized by a low ambient noise level should be viewed as a public resource to be preserved.

2. BACKGROUND AND FINDINGS: DEFINITIONS AND MEASUREMENTS

2.1. Introduction

State of California noise guidelines require that noise contours depicting major noise sources be in terms of Ldn or CNEL (See definitions in the Glossary), which impose a 10dB "penalty" on sound levels between the hours of 10PM and 7AM. The reason for this is to account for the fact that noise at night can be more noticeable and bothersome. 10dB is generally accepted to be the average difference between day and night levels. However, Point Arena has a much wider spread between day and night levels. And, while Ldn is useful to describe some aspects of noise levels in the city, it gives a distorted view as to the actual sound level experienced by the area's residents. Therefore, Ldn measurements must be taken over a twenty-four hour period, or use must be made of a noise model that matches Point Arena's low night-time sound levels.

Moreover, seasonal factors contribute to the annual average of sound levels in the city, including tourist traffic on Highway 1 during the spring, summer and fall, and on some long holiday weekends, and truck traffic at Arena Cove, and logging traffic on Riverside Drive and Highway 1.

State noise guidelines allow and encourage local jurisdictions to employ considerable flexibility in describing a local situation in order to more fully quantify local sound levels. Two different units of measurement are used. First, noise contours are to be shown in terms of Ldn. Second, where appropriate, Leq is to be used to better quantify the true noise levels. (Definitions of the terms used in this element are located in the Glossary of the General Plan).

2.2. Noise Sources and Existing Measurements

Specific identifiable sources of noise in Point Arena are shown in part on the noise contour map (located at the end of this element) and additionally are listed in the table below. Noise contours are intended to illustrate the general location and extent of projected future noise levels.

The most prominent sources of noise in Point Arena are:

1. Traffic on Highway 1, including along Main Street
2. Heavy truck traffic on Highway 1 and Riverside Drive
3. Operations at the BedRock industrial facility
4. Compressor noise from the refrigerator trucks at Arena Cove
5. Barking dogs, especially on Mill Street and Eastwood Drive
6. Jet aircraft overhead.

The following table summarizes noise levels at various locations;

Table 5 Existing Noise Measurements

Location	Daytime		Night		Ldn	
	Lmin	Leq	Lmin	Leq(24)		
Highway 1 Corridor	40	55	21	24	39	47
Riverside Dr @ Hwy	1	35	55	21	23	39
Arena Cove	6	50	40	40	45	50
Mill Street	25	33	22	23	28	33
Bedrock Plant	25	55	21	23	39	46
New Industrial Site on Riverside	28	32	21	23	27	32
Outside HS Gym 9 a.m.	25	34	22	24	29	34
City Hall Park Lot	22	33	21	23	28	33
Port Street Apts	35	38	22	24	31	36

Leq(24) values range from 27 to 45.

Ldn values range from 32 to 50.

Source: Measurements are a compilation of data from the following studies/surveys:

Brown-Buntin Associates Noise Study (1984)
 Mintier Draft General Plan (1987)
 Administrative Draft EIR for the 1992
 preliminary draft General Plan (1991)
 Field survey conducted by members of the
 Noise Element sub-committee, using a County of
 Mendocino noise meter

2.3. Noise-Sensitive Areas: Existing and Future

The following are the areas where the impact of noise generated off site can be expected to be the most severe:

1. In existing and future single-family and multiple-family areas
2. At school and church sites

3. At the Point Arena Medical Center on Mill Street
4. At similar areas and sites where the absence of noise is essential to the health and welfare of the residents or occupants.

Various conditions affecting future noise levels and noise contours in Point Arena include the following:

1. Possible reduced logging truck traffic due to a decline in the logging industry
2. Increased tourist traffic on Highway 1
3. Increased residential development, especially in the newly-annexed area east of Downtown
4. Increased truck traffic and other activities associated with development of the city's industrial area and of Arena Cove.

The noise contour map for the noise element, which appears at the end of this element ("Noise Contours Based on General Plan Buildout", prepared by Earth Metrics) shows "worst case" projected levels for the next 5-10 years. The increase in noise levels along the Highway 1 corridor are estimated to increase 2-3 dB (Ldn) in the next 5-10 years. The city's residential areas, as they get built up, are not expected to generate any significant increase in ambient noise levels.

3. NOISE CONTROL GOALS

1. To preserve low ambient noise levels in residential neighborhoods, especially at night (8PM - 7AM)
2. To protect existing developed areas from excessive noise levels
3. To encourage low-noise commercial and industrial developments
4. To implement planning and zoning regulations that will guard against the loss of the low ambient sound levels, especially at night
5. To implement and enforce the State of California Noise Insulation Standards for all new developments.

4. NOISE CONTROL POLICIES AND PROGRAMS

1. Noise levels shall not be permitted to exceed 60 Leq(1) anywhere within the community.

2. The City may require an acoustical report for new multi-family dwellings within the 60dB (Ldn) noise exposure contour, as required by Title 25 of the California Administrative Code-Noise Insulation Standards.
3. New development in all zones must not raise the ambient noise levels in any residential zone within the city. Where residential zoning is adjacent to other zones, the lower residential noise limits will apply.
4. New developments in commercial and industrial zones shall be designed, sited and screened in such a way as to avoid or suppress noise and the impact of any noise on existing and proposed residential settings; and, noise buffers (walls, trees, landscaping, open spaces, berms, other buildings) between industrial/commercial activities and residential and other noise-sensitive activities shall be required as a condition of development permits.
5. No noise-generating industries shall be allowed to operate between the hours of 8 p.m. and 7 a.m.
6. A city noise ordinance based on Leq and Lmax noise measurements for day and night, and based on and capable of implementing the above goals and policies, shall be enacted, and shall conform to the requirements of State law and State noise guidelines. Exemptions should be made for temporary construction and repair activities, and for emergencies.
7. The following Leq and Lmax noise limits shall be incorporated into said ordinance:

Daytime limits: (7AM - 8PM)

Residential: 50 Leq(1) at the property line of the property within which the noise generated is located, 80dB (Lmax) at the source

Commercial: 60 Leq(1) at the property line 80dB (Lmax) at the source

Industrial: 60 Leq(1) at the property line 90dB (Lmax) at the source

Night-time limits: (8PM - 7AM)

Residential: 25 Leq(1) at the property line 60Db (Lmax) at the source

Commercial: 30 Leq(1) at the property line 60dB (Lmax) at the source

Industrial: 30 Leq(1) at the property line 60dB(Lmax) at the source

Note 1: Leq(1) denotes average sound level for one hour.

Note 2: "at the property line" shall be interpreted to mean "at the property line or at reasonable and sensitive receptors such as residences, schools, churches, hospitals and other similar commercial and residential receptors which are deemed appropriate."

8. To mitigate exterior sound levels, due to transportation or other sources, for new residential or other new projects, consideration shall be given to an increased setback distance; use of property line, patio, and deck barriers; orientation of buildings to achieve a sound shielding benefit at outdoor use areas.

9. To mitigate interior sound levels, due to transportation or other sources, for new residential or other new projects, consideration shall be given to an increased setback distance and use of barriers, insulation measures applied to the building skins, including appropriate designs for windows, walls, doors, roof/ceiling assemblies, weather seals, and other components.

Vegetative barriers do not generally provide substantial reductions in noise levels.

10. The City will consider the following measures which can be used to mitigate the sound impacts created at residential or other sensitive receptors as a result of equipment operations or other activities at industrial and commercial facilities:

a. Use buffer zones of open space or "intermediate" type uses. It is desirable, where feasible, to allow at least 200 feet between noisy industrial or commercial sites and residential or other sensitive land uses. Noisy buildings or other noisy facilities shall be well set back from the property line.

b. The City shall require noise studies for potentially noisy facilities which are to be located near sensitive land uses. Industrial and commercial uses likely to create adverse noise impacts include fuel distribution centers served by rail or truck, truck terminals, new or expansion of gravel Batch plants and concrete manufacturing plants, construction activities if hammering is involved and is done outdoors, and animal kennels. Commercial facilities likely to create adverse noise impacts include automobile repair shops, body shops, and heavy equipment rental shops; car washes; drive-in restaurants; and supermarkets and other facilities with rooftop equipment and truck deliveries.

c. The public shall be notified of the proposed placing of noisy industrial or commercial facilities in proximity to sensitive uses and vice versa.

d. Noise studies shall be required for any new industrial use that will generate more than five truck trips per daytime hour, any heavy truck traffic during nighttime hours, or more than 25 trucks in 24 hours. A Noise Ordinance including both quantitative limits and nuisance provisions shall be enacted.

e. All truck loading bays shall be located such that they do not open to the direction where sensitive receptors are located.

f. As far as feasible, truck and loading dock operations near residential receptors shall be limited to the daylight hours.

g. Buffer zones setbacks and/or sound attenuation devices such as landscaped berms shall be interposed between residential and commercial uses and between residential and industrial uses, especially those that are likely to be noisy, as described above.

h. Rooftop and other mechanical equipment shall be shielded, enclosed, silenced, or setback an appropriate distance from the property line. The shielding could be accomplished by either appropriate siting of buildings or appropriate fences or walls.

- i. Large exterior pipes or ducts in some cases may need to be shielded, enclosed, or lagged.
- j. In some cases, insulation measures may be needed for industrial buildings.

11. Proposals for uses associated with industrial and commercial development should include appropriate designs for walls, roof/ ceilings, doors, windows, vent silencers, interior absorption, and other components. Doors and windows shall be provided with effective weather seals.

- a. Trucks idling times shall be limited where feasible. Where personal radios are used, the volume shall be controlled as far as feasible.
- b. Where paging systems are required, they shall be designed to minimize "spillover" sound to sensitive receptor properties.

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