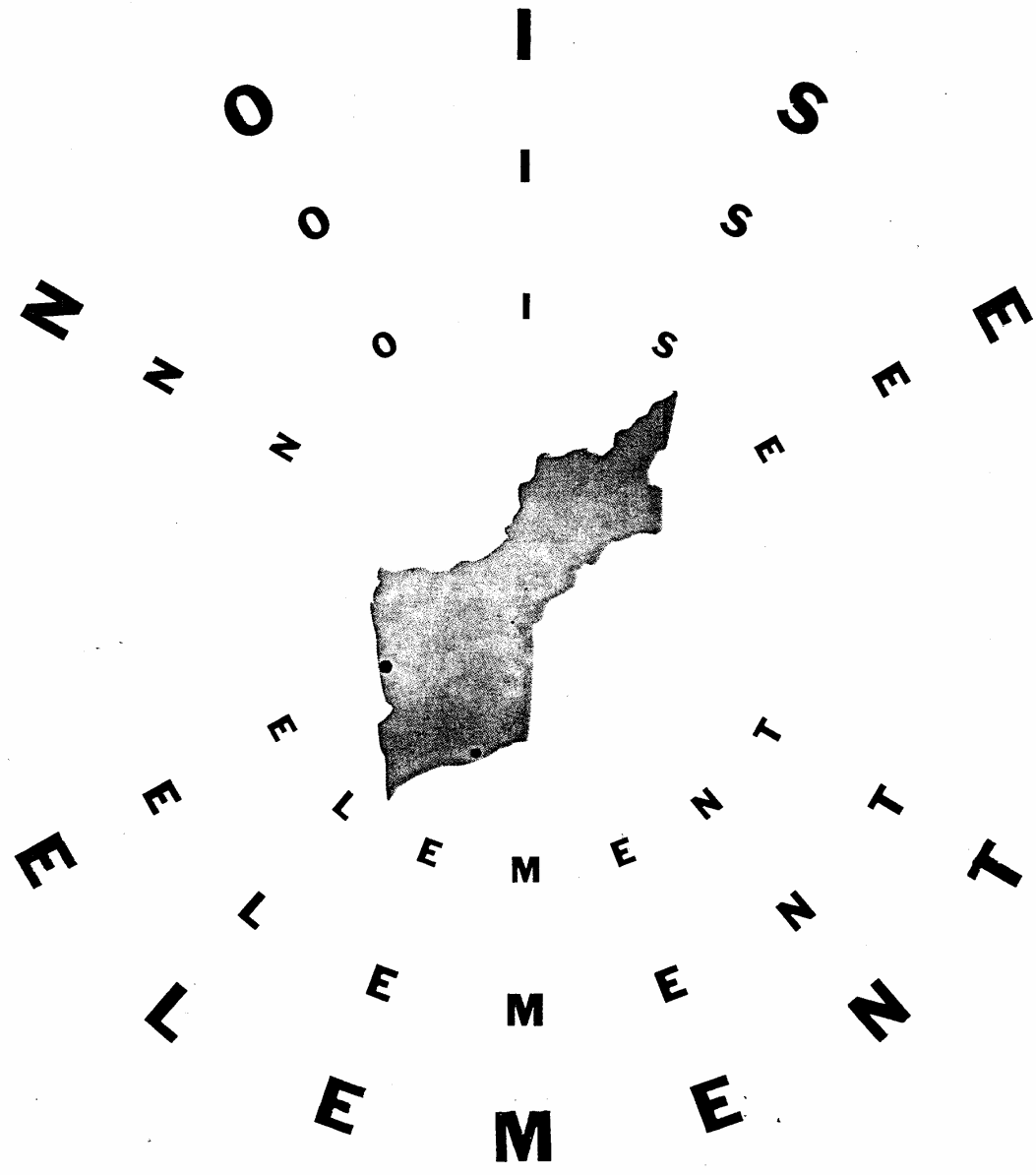

YUBA COUNTY

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NOISE ELEMENT

PREFACE

California Government Code Section 65302(g), as amended by Senate Bill 860 (effective January 1, 1976), required the County to prepare a Noise Element which:

"...shall recognize guidelines adopted by the Office of Noise Control pursuant to Section 39850.1 of the Health and Safety Code and which quantifies the community noise environment in terms of noise exposure contours for both near and long-term levels of growth and traffic activity. Such noise exposure information shall become a guideline for use in development of the Land Use Element to achieve noise compatible land use and also to provide baseline levels and noise source identification for local noise ordinance enforcement."

Section 65302(g) also states that the adopted Noise Element shall:

"...become the guidelines for determining compliance with the State's Noise Insulation Standards as contained in Section 1092 of Title 25 of the California Administrative Code."

This Noise Element was prepared in accordance with the State Office of Noise Control's Guidelines for the Preparation and Content of Noise Elements of the General Plan dated February 1976. These guidelines outline the procedures to be used to conform with California Government Code Section 65302(g). According to the Guidelines, the Noise Element should quantify the Community Noise Environment in terms of noise exposure contours for both

near and long-term levels of growth and traffic activity. Noise exposure information guides the development of the Land Use Element, the Circulation Element, and Noise Ordinances. Noise sources considered by the element include highways, railroads, airports, industrial plants and other noise sources identified by the County as contributing to the community noise environment. The Guidelines also state that noise contours are to be expressed in Community Noise Equivalent Levels (CNEL) or day-night average levels (L_{dn}).

SUMMARY OF GOALS, OBJECTIVES, AND IMPLEMENTATION

GOAL: The general goal is to protect the lives and property of the citizens of Yuba County from hazardous and annoying noise.

OBJECTIVES:

1. To define the nature of potential noise hazards in various parts of Yuba County in order that this information shall be used as a guide for noise level reduction measures for all new construction.

2. To provide a guide to planning for appropriate uses of land in relation to hazardous and annoying noise.

3. To increase public awareness of existing and potential noise hazards, and the means to mitigate the effects of these hazards.

IMPLEMENTATION:

1. The Noise Element shall be integrated with the other General Plan Elements for Yuba County.

2. Yuba County shall adopt an Open Space Zoning in noise hazardous areas.

3. Yuba County shall maintain strict enforcement of sound insulation standards for all new construction as required by the most current Uniform Building Code.

4. Yuba County shall review all future developments by using all available noise data and taking into account recommendations from the other elements of the General Plan.

5. Yuba County shall control all developments proposed near highways, railroad lines, and airports to protect the residents of Yuba County from excessive annoying noise and to preserve the existing land uses.

6. Yuba County shall require that noise studies be prepared on noise generating uses which are proposed for development in noise sensitive areas to determine land use compatibility.

7. Yuba County shall assure that population densities and development are kept to a minimum in areas of known excessive noise generation.

RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

The General Plan consists of nine elements which are mandated by the State planning laws. The individual elements of the General Plan present specific goals, policies and objectives, but each element must be consistent and serve as a cohesive unit with the other elements to provide an integrated General Plan in order to provide sound planning for future growth and change within each political jurisdiction. Figure 1 shows the relationship of the Noise Element to the other Elements of the General Plan.

A. CIRCULATION

The Circulation Element identifies the location and extent of existing and proposed major thoroughfares, transportation routes, terminals, local public utilties and facilities. The circulation system is one of the major sources of noise pollution and has a direct impact on the quality of life. Therefore, the rights-of-way for major thoroughfares and transportation systems must be designed in such a way that they will not produce any adverse cumulative effects on residential and noise sensitive areas designated in the Land Use Element.

B. LAND USE

The Land Use Element designates the general location, extent and distribution of the use of the land for housing, business,

industry, open space, and other categories of public and private land uses. The Noise Element provides information to aid in the planning of separate zones for noise producing sources and noise sensitive quiet zones.

C. HOUSING

The Housing Element consists of standards and plans for the improvement of housing and provisions for adequate sites for housing for all economic segments of the community. The Noise Element provides information to assist in the planned location of housing projects in areas with compatible ambient noise levels in order to enhance the quality of life.

D. OPEN SPACE AND CONSERVATION

The Open Space and Conservation Elements identify areas designed for the protection of natural resources and for ecologic and other scientific study purposes. The intent of the Element is also to provide a planning framework for future decisions regarding the preservation, utilization, and development of the natural environment within each city and county. The Noise Element is related to the Open Space Element in that noise can adversely impact the enjoyment of quiet pursuits in open spaces.

E. SCENIC HIGHWAY

The Scenic Highway Element identifies those highways designated by the State of California as eligible for official scenic highway status and streets or routes designated as scenic by local agencies. The Scenic Highway Element relates directly to the Noise Element as a producer of noise pollution.

FIGURE 1

RELATIONSHIP OF NOISE ELEMENT

TO YUBA COUNTY GENERAL PLAN

PLAN ELEMENT	RELATIVE IMPACT
Circulation Element	X
Land Use Element	X
Seismic Safety Element	0
Safety Element	*
Housing Element	X
Scenic Highway Element	*
Open Space Element	*
Conservation Element	0

X = Closely relates to the Noise Element

* = Relates somewhat to the Noise Element

0 = Minor or no relationship to the Noise Element

DEFINITIONS OF TERMS

Definitions of commonly used noise terms are provided to allow the technical information to be understood by the user of this element.

A-WEIGHTED NETWORK, dB(A) - The sound pressures heard by the human ear vary over a wide range. To make this range easier to study, sound pressures are converted into units called decibels (dB). The range then goes from 0, the threshold of hearing, to 140 dB and above, 140 dB being the threshold of pain.

Because the human ear does not react to sound at low frequencies in the same way as sounds at high frequencies, the quality of sound must also be evaluated. An "A-Weighting Network" is provided in sound level meters to simulate the human ear. A-weighting sound levels are expressed in units of dB(A).

ABSORPTION - Absorption is a property of materials that reduces the amount of sound energy reflected. Thus, the introduction of an "absorbent" into the surfaces of a room will reduce the sound pressure level in that room by virtue of the fact that sound energy striking the room surfaces will not be totally reflected. It should be mentioned that this is an entirely different process from that of transmission loss through a material, which determines how much sound gets into the room via the walls, ceiling and floor. The effect of absorption merely reduces the resultant sound level in the room produced by energy which has already entered the room.

AIRBORNE SOUND - Sound that reaches the receptor by propagation through air.

AMBIENT, OR BACKGROUND SOUND - Ambient or background sound is all-encompassing sound associated with a given environment, being usually a composite of sounds from many sources near and far without inclusion of noise from isolated identifiable sources.

COMMUNITY NOISE EQUIVALENT LEVEL, (CNEL) - CNEL is a scale which takes into account all the A-weighted acoustic energy received at a point, from all noise events causing noise levels above some prescribed value. Weighting factors are included which place greater importance upon noise events occurring during the evening hours (7 p.m. to 10 p.m.) and even greater importance upon noise events occurring at night (10 p.m. to 7 a.m.).

DAY-NIGHT AVERAGE SOUND LEVEL, (L_{dn}) - The 24-hour energy average of the A-weighted sound pressure level, with the levels during the period 10 p.m. to 7 a.m. the following day, increased by 10 dBA before averaging. Similar to CNEL.

DECIBEL - The decibel (abbreviated "dB") is a measure, on a logarithmic scale, of the magnitude of a particular quantity (such as sound pressure, sound power, intensity, etc.) with respect to a standard reference value.

EQUIVALENT A-WEIGHTED SOUND LEVEL (L_{eq}) - The constant sound level that, in a given situation and time period, conveys the same sound energy as the actual time-varying A-weighted sound. Usually the time period is 24 hours.

FREQUENCY - The number of times per second that the sine-wave of sound repeats itself, or that the sine-wave of a vibrating object repeats itself. It is expressed in Hertz (Hz) or cycles per second (cps).

HERTZ - see Frequency

IMPACT INSULATION CLASS (IIC)- A single-figure rating which is intended to permit the comparison of the impact sound insulating merits of floor-ceiling assemblies in terms of a reference contour.

IMPACT SOUND - The sound arising from the impact of a solid object on an interior surface (wall, floor or ceiling) of a building. Typical sources are footsteps, dropped objects, etc.

IMPULSIVE SOUND - Sound with a rise time of not more than 35 milliseconds to peak intensity and a duration of not more than 500 milliseconds.

L_{dn} - See Day-Night Average Sound Level

L_{eq} - The level of an acoustic quantity in decibels

LOUDNESS - The judgment of intensity of a sound by a human being. Loudness depends primarily upon the sound pressure of the stimulus. Over much of the loudness range it takes about a threefold increase in sound pressure (approximately 10 dB) to produce a doubling of loudness.

MASKING - The action of bringing one sound (audible when heard alone) to inaudibility or to unintelligibility by the introduction of another, usually louder, sound. See masking noise.

MASKING NOISE - A noise which is intense enough to render inaudible or unintelligible another sound which is simultaneously present.

NOISE - Any sound which is undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying. Noise, simply, is "unwanted sound".

PITCH - A listener's perception of the frequency of a sound; the higher the frequency, the higher the pitch.

SHIELDING - The attenuation of a sound by placing walls, buildings, or other barriers between the sound source and the receiver.

SOUND INSULATION - The use of structures and materials designed to reduce the transmission of sound from one room or area to another or from the exterior to the interior of a building.

SOUND LEVEL (NOISE LEVEL) - The weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum.

SOUND LEVEL METER - An instrument, comprised of a microphone, an amplifier, an output meter and frequency-weighting networks, that is used for the measurement of noise and sound levels.

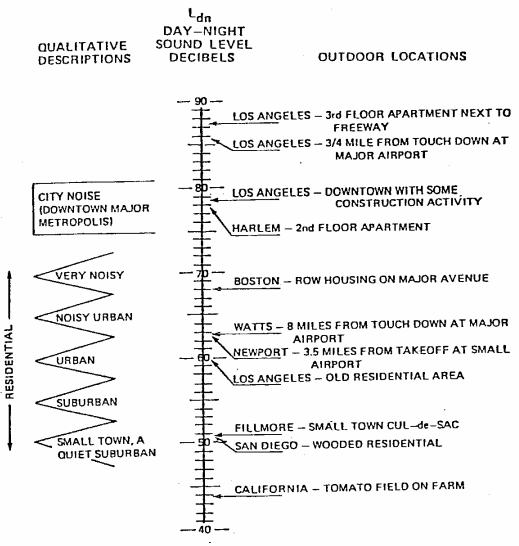
HOW NOISE IS MEASURED

The noise environment of a community has a base of steady background noise made up of many sources. The noise of individual nearby events such as a car or train, an aircraft or a lawnmower is superimposed on this background.

Describing a noise environment and assessing its impact requires selecting a measurement that correlates well with human response to loudness or to annoying characteristics of a particular noise. The A-weighted frequency scale of a standard sound level meter has such a response characteristic. A-scale noise levels are expressed in decibels; A or dBA. The measuring unit "decibel" (written dB) is used to express the relative loudness of a sound. Each time the intensity of a sound is doubled, there is an increase of three decibels, and each time the intensity is multiplied by 10, there is an increase of 10 decibels. Most people judge each increase of 10 dB to be twice as loud.

L_{dn} or CNEL are descriptions of diurnal noise levels. They are a weighted average of daytime and nighttime sound levels, with the nighttime noise being weighted more heavily. The L_{dn} or CNEL differ slightly but for the purposes of this Noise Element will be regarded as being the same. Figure 2 shows the correlation between measured L_{dn} values and various types of community noise.

FIGURE 2



OUTDOOR DAY-NIGHT SOUND LEVEL IN db (re 20 MICROPASCALS)

Source: Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, U.S. E.P.A., March, 1974.

EFFECTS OF SOUND

HUMAN EFFECTS

The World Health Organization defines health as the state of physical, mental and social well-being and not merely the absence of disease or infirmity. Since noise can be an element of annoyance and a threat to physical and mental health, it does exert a negative influence upon one's general health and peace-of-mind. Therefore, persistent noise created by our mechanized society can act in the same way as a disease infecting our body. In order to decrease the amount of future hearing disability, the Environmental Protection Agency has specified that 55 L_{dn} outside and 45 L_{dn} inside are the sound levels requisite to protect our general health and welfare.

The most prevalent and damaging effect from noise on humans is hearing impairment. Besides the pathogenic effect of noise upon the human organism, noise can also cause annoyance. Additionally, noise can also interfere with various individual and community activities.

INDIVIDUAL AND COMMUNITY REACTION

We have all lived with increasing noise for so long that many of us have lost any rational basis for judging what is an acceptable community ambient sound level. A person's reaction to noise is not determined by the noise alone but also by the environment in which the noise occurs. People who live in industrial areas accept more noise than those who live in non-industrial areas and apparently without complaint; however, it is likely they would demand less noise had they a different basis for judgment. Table 1 gives a general indication of what sound levels people want in

TABLE 1

SOUND LEVELS PEOPLE WANT

Location	Sound Level In db-A	
	Day	Night
Rural Residential	35	25
Suburban Residential	40	30
Urban Residential	45	35
Commercial	55	45
Industrial	60	50

Source: *A Report to the 1971 Legislature on the subject of Noise Pursuant to Assembly Concurrent Resolution 165 (Sacramento: California Department of Public Health, 1971) P. 33.*

TABLE 2

SOUND LEVELS PEOPLE WILL ACCEPT WITHOUT UNDUE COMPLAINT

Location	Sound Level In db-A	
	Day	Night
Rural Residential	35-45	25-35
Suburban Residential	40-50	30-40
Urban Residential	45-55	35-45
Commercial	55-65	45-55
Industrial	60-70	50-60

Source: *A Report to the 1971 Legislature on the Subject of Noise Pursuant to Assembly Concurrent Resolution 165 (Sacramento: California Department of Public Health, 1971) P. 34.*

TABLE 3

ESTIMATED COMMUNITY RESPONSE TO SOUND LEVEL INCREASES

Sound Level In db-A Above the Acceptable Level	Estimated Community Response
0	No observed reaction
5	Sporadic complaints
10	Wide spread complaints
15	Threats of action
20	Vigorous action

Source: *A Report to the 1971 Legislature on the Subject of Noise Pursuant to Assembly Concurrent Resolution 165 (Sacramento: California Department of Public Health, 1971) P. 34.*

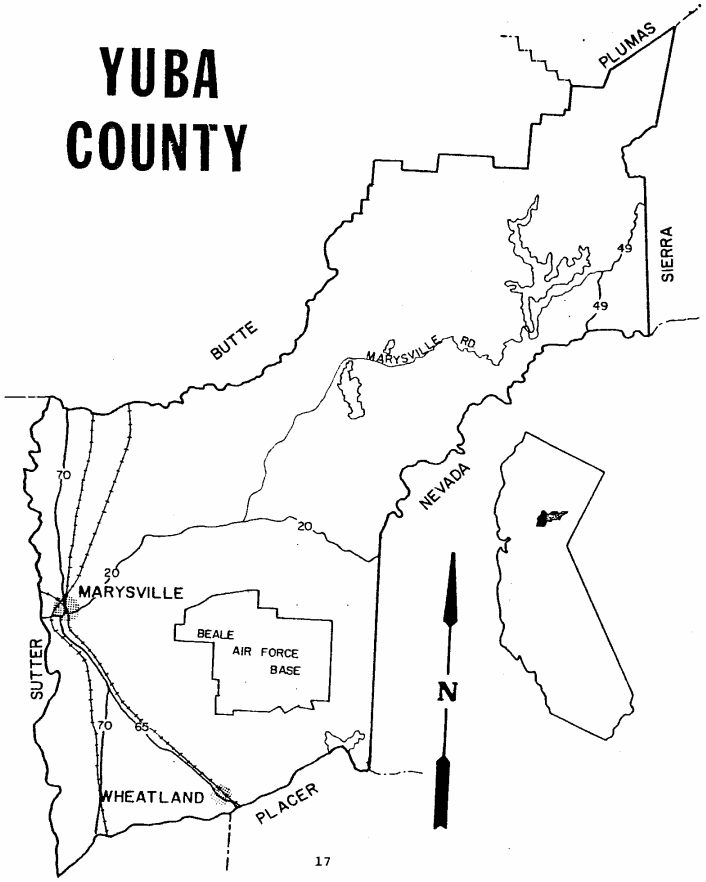
their acoustic environment.

Due to the variation in the way people react to noise, it is not possible to determine fixed sound levels acceptable to all people under all circumstances. However, sufficient information is at hand to suggest limits within ranges which are acceptable to most people without undue complaint. These suggested limits are indicated in Table 2 for the same living environments as given in Table 1.

Furthermore, studies have been made to test community responses to noise. These studies show that people begin to complain when sound levels exceed the ranges shown in Table 2. The intensity of complaints is shown in Table 3 for incremental increases above acceptable sound levels.

EXISTING CONDITIONS

Yuba County, with a land area of 640 square miles, is located on the eastern edge of the Sacramento Valley, approximately 40 miles north of the State Capitol at Sacramento. Two incorporated cities - Marysville and Wheatland - lie within its boundaries. There are several small communities scattered throughout the County. The populations of these valley, foothill, and mountain communities are herein listed based on the 1975 County Special Census:



Community	Population
Marysville	9,350 *
Linda	8,859
Olivehurst	7,382
Wheatland	1,470 *
Loma Rica	916
Smartville	200
Brownsville	728
Dobbins	469
Challenge	236
Browns Valley	601
Oregon House	698
Rackerby	200
Strawberry Valley	156
Camptonville	443
Beale Air Force Base	8,208
Total County	47,700 *

Yuba County is largely composed of rural areas, and many of its residents have enjoyed a relatively peaceful environment most of their lives. The population in Yuba County in recent years has been rising, bringing with it the noise of urbanization. Consequently, areas that were once quiet and peaceful are becoming relatively noisy.

* Department of Finance 1978 Population Estimates

INVENTORY OF POPULATION EXPOSED TO VARIOUS NOISE SOURCES

It is felt that the majority of noise in Yuba County is produced by different modes of transportation, namely vehicular (automobile, truck, motorcycle), railroads (freight trains), and aircraft (military and private).

Due to a lack of available current census data and the disbursement of the population in the unincorporated area of Yuba County the following are rough estimates of the maximum numbers of persons felt to be exposed to noise from the various noise sources:

HIGHWAYS	NO. OF PERSONS (approx.)
Route 20	900
Route 49	90
Route 65	2700
Route 70	2700

(See Tables 4-7 for Noise Contours for each State Route)

RAILROADS	NO. OF PERSONS (approx.)
Western Pacific	3400
Southern Pacific	2700

(See Figure 6 for Noise Contours for W.P.R.R. and S.P.R.R.)

YUBA COUNTY AIRPORT

There are no permanent residents living within the 65 dBA noise level contours around the airport. The area surrounding the airport is zoned for Manufacturing and Industry,

with the Yuba County Industrial Tract being developed at present.

(See Figure 3 for Noise Contours for the Yuba County Airport)

BEALE AIR FORCE BASE

Approximately 7000 persons reside within the 65 dBA noise level contour produced by the aircraft operations at Beale AFB. Of this number some 6600 persons are residents of the housing projects located within the confines of the Base.

(See Figure 4 for Noise Contours for Beale Air Force Base)

Source: 1975 SRAPC Special Census

SOURCES OF SOUND

Today there are a multitude of sound sources affecting us. Most of these sound sources occur in our outdoor environment from origins foreign to the outdoors. The main violators of our outdoor acoustical environment are:

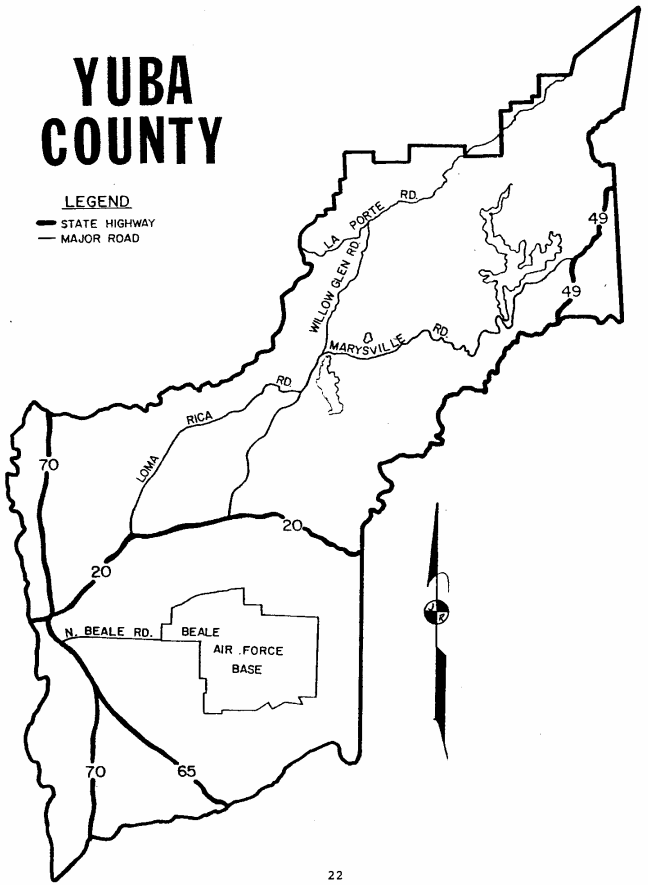
Highway vehicles	Internal combustion engines
Aircraft	Construction activity
Recreation vehicles	Industrial plants
Railroads	

Each of these sound sources interact to sometimes produce cumulative sounds that are very annoying and sometimes harmful. Furthermore, surface and air transportation generally contribute an inordinate amount of unnecessary sounds in our acoustical environment as compared to other sound sources.

SPECIFIC NOISE SOURCES IN YUBA COUNTY

HIGHWAY SOURCES

Vehicular traffic, including autos, trucks, buses, utility, and maintenance vehicles, generally establish the ambient sound (normal background sounds) in a community. This ambient level varies throughout the day based upon the intensity of other community sound sources. Furthermore, the ambient level is dependent upon traffic flow rate, average vehicular speed, distance to sound receivers and the ratio of types of vehicles. Superimposed upon this ambient level are the intrusive, single-event sounds emitted from "specially equipped" trucks, cars and motorcycles. All vehicular sounds are attributable to four sources: rolling stock (tires, gears, etc.), body rattles and vehicular aerodynamics and engine noises.



A major source of ambient noise is produced by traffic on state highways and county maintained roads. High speed state highways produce the highest noise levels and noise contour tables have been prepared to illustrate the present and future noise exposure levels.

These tables will assist decision makers and property owners adjacent to state highways in making land use decisions for types of land uses that may be noise sensitive. Also, frequently travelled county roads may generate similar noise levels and these noise contours should be considered in the land use planning process.

Tables 4 thru 7 illustrate the present and future noise contours along State Highways in Yuba County (see Appendix 2 for explanation of methodology used in preparation of the noise contours).

AIRCRAFT SOURCES

The impact of aircraft sound in Yuba County is due mainly to two sources of aircraft activity: Yuba County Airport and Beale Air Force Base. The greatest sound intrusion occurs when military jets land, take-off, or run-up their engines while on the ground. There are three major sources of sound in a jet engine: the exhaust, the turbomachinery and the fan. The sound associated with general aviation propeller aircraft (piston and turboprop) are produced primarily by the propellers and secondarily from the engine and exhaust.

ROUTE 20

TABLE 4

LOCATION	Nomogram	Traffic Volume (ADT)	1978 NOISE CONTOURS (L_{dn}) Distance to Contours From ℄ of Near Lane				1998 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	1998 NOISE CONTOURS (L_{dn}) Distance to Contours From ℄ of Near Lane			
			75 dBA	70 dBA	65 dBA	60 dBA		75 dBA	70 dBA	65 dBA	60 dBA
Sutter Co. Feather River Br. Yuba Co.	Figure 1	30,200	-	50'	150'	330'	42,900	-	75'	175'	410'
Marysville H Street	"	24,100	-	40'	125'	290'	39,800	-	70'	170'	385'
Marysville, Jct. Route 70 South, 9th & E Streets	"	19,000	-	25'	110'	250'	30,000	-	50'	145'	330'
Marysville, 9th & B Streets	"	23,800	-	35'	125'	290'	36,900	-	70'	170'	375'
Marysville, Jct. Route 70 North 12th & B Streets	"	14,000	-	25'	110'	250'	19,600	-	25'	110'	250'
Marysville, Buchanan Street	"	9,200	-	25'	110'	250'	14,300	-	25'	110'	250'
Marysville 2nd Street	Figure 2	6,200	35'	75'	200'	450'	9,600	35'	75'	200'	450'

ROUTE 20

TABLE 4 (Cont'd)

LOCATION	Nomogram	Traffic Volume (ADT)	1978 NOISE CONTOURS (L_{dn}) Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA	Traffic Volume (ADT)	1998 NOISE CONTOURS (L_{dn}) Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA
West Hallwood Boulevard	Figure 2	5,400	35'	75'	200'	450'	8,800	35'	75'	200'	450'
Loma Rica Road	"	4,300	35'	75'	200'	450'	7,700	35'	75'	200'	450'
Marysville Road (to Challenge)	"	2,200	35'	75'	200'	450'	4,000	35'	75'	200'	450'
Smartville Road (to Beal A.F.B.)	"	2,700	35'	75'	200'	450'	5,100	35'	75'	200'	450'
Yuba County Nevada County											

Methodology by State of California, Department of Health, Office of Noise Control, as described in "Estimation of Community Noise Exposure in Terms of Day-Night Average Level Noise Contours" by Jack W. Swing, dated May, 1975.

Traffic data developed by applying an expansion factor (from the current State Highway Inventory) to traffic volumes in the 1976 Traffic Volumes Manual.

Prepared by: C. E. Sexton
W. B. Rogers

Supervised by: M. L. Larson

February, 1978

ROUTE 49

TABLE 5

LOCATION	Nomogram	Traffic Volume (ADT)	1978 NOISE CONTOURS (L_{dn}) Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA	Traffic Volume (ADT)	1998 NOISE CONTOURS (L_{dn}) Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA
Nevada County (Yuba River Br.) Yuba County	Figure 2	1,350	35'	75'	200'	450'	2,250	35'	75'	200'	450'
Celestial Valley Road	"	1,400	35'	75'	200'	450'	2,400	35'	75'	200'	450'
Marysville Road	"	1,500	35'	75'	200'	450'	2,500	35'	75'	200'	450'
Camptonville Road	"	1,050	35'	75'	200'	450'	1,750	35'	75'	200'	450'
Yuba County Sierra County											

Methodology by State of California, Department of Health, Office of Noise Control, as described in "Estimation of Community Noise Exposure in Terms of Day-Night Average Level Noise Contours" by Jack W. Swing, dated May, 1975.

Traffic data developed by applying an expansion factor (from the current State Highway Inventory) to traffic volumes in the 1976 Traffic Volumes Manual.

Prepared by: C. E. Sexton
W. B. Rogers

Supervised by: M. L. Larson

February, 1978

ROUTE 65

TABLE 6

LOCATION	Nomogram	1978 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA	1998 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA
Placer County Yuba County	Figure 2	5,800	35'	75'	200'	450'	9,200	35'	75'	200'	450'
Wheatland Evergreen Drive	"	6,700	35'	75'	200'	450'	10,700	35'	75'	200'	450'
South Road (to Beale A.F.B.)	"	5,900	35'	75'	200'	450'	10,100	35'	75'	200'	450'
Forty Mile Road I.C.	"	6,300	35'	75'	200'	450'	11,700	35'	75'	200'	450'
McGowan Road I.C.	"	7,500	35'	75'	200'	450'	13,900	35'	75'	200'	450'
Jct. Route 70											

Methodology by State of California, Department of Health, Office of Noise Control, as described in "Estimation of Community Noise Exposure in Terms of Day-Night Average Level Noise Contours" by Jack W. Swing, dated May, 1975.

Traffic data developed by applying an expansion factor (from the current State Highway Inventory) to traffic volumes in the 1976 Traffic Volumes Manual.

Prepared by: C. E. Sexton, W. B. Rogers Supervised by: M. L. Larson February, 1978

ROUTE 70

TABLE 7

LOCATION	Nomogram	1978 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA	1998 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA
Sutter County Yuba County	Figure 2	5,900	35'	75'	200'	450'	12,500	35'	75'	200'	450'
Feather River Blvd.	"	6,250	35'	75'	200'	450'	16,100	35'	75'	200'	450'
McGowan Road I.C.	"	8,100	35'	75'	200'	450'	15,200	35'	75'	200'	450'
Jct. Route 65 S.	"	15,000	35'	75'	200'	450'	29,400	45'	125'	275'	555'
Olivehurst Ave. I.C.	"	18,100	35'	75'	200'	450'	38,600	60'	145'	330'	650'
Chestnut Road Conn.	"	18,500	35'	75'	200'	450'	39,400	60'	150'	335'	650'
Hammonton Road	"	17,700	35'	75'	200'	450'	37,700	55'	140'	325'	625'
Linda Interchange	"	25,300	40'	110'	250'	550'	41,000	65'	155'	350'	650'
S. Marysville I.C. (to Beale A.F.B.)	"	38,300	60'	145'	330'	650'	62,400	90'	220'	450'	800'

ROUTE 70

TABLE 7 (Cont'd)

LOCATION	Nomogram	1978 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA	1998 NOISL CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA
Yuba River Br.	Figure 2	38,300	60'	145'	330'	650'	62,400	90'	220'	450'	800'
Marysville First Street I.C.	Figure 1	29,800	-	50'	145'	330'	48,600	-	80'	190'	445'
Marysville Fifth Street	"	24,150	-	40'	130'	290'	42,500	-	75'	175'	410'
Marysville, S. Jct. Route 20 9th & E Streets	"	19,000	-	25'	110'	250'	30,000	-	50'	145'	330'
Msv., 9th & B Sts.	"	23,800	-	35'	125'	290'	36,900	-	70'	170'	375'
Marysville, N. Jct. Route 20 12th & B Streets	"	12,100	-	25'	110'	250'	17,500	-	25'	110'	250'
Marysville 14th Street	"	13,400	-	25'	110'	250'	20,400	-	30'	115'	260'
Marysville 18th Street	Figure 2	10,500	35'	75'	200'	450'	19,200	35'	75'	200'	450'

ROUTE 70

TABLE 7 (Cont'd)

LOCATION	Nomogram	1978 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA	1998 NOISE CONTOURS (L_{dn}) Traffic Volume (ADT)	Distance to Contours From ℄ of Near Lane 75 dBA	70 dBA	65 dBA	60 dBA
Marysville 24th Street	Figure 2	8,600	35'	75'	200'	450'	17,700	35'	75'	200'	450'
Laurellen Road	"	7,500	35'	75'	200'	450'	12,400	35'	75'	200'	450'
Woodruff Lane	"	6,500	35'	75'	200'	450'	10,700	35'	75'	200'	450'
Yuba County Butte County											

Methodology by State of California, Department of Health, Office of Noise Control, as described in "Estimation of Community Noise Exposure in Terms of Day-Night Average Level Noise Contours" by Jack W. Swing, dated May, 1975.

Traffic data developed by applying an expansion factor (from the current State Highway Inventory) to traffic volumes in the 1976 Traffic Volumes Manual.

Prepared by: C. E. Sexton
W. B. Rogers

Supervised by: M. L. Larson

February, 1978

The Yuba County Airport is a general aviation airport with no scheduled airline service at the present time. Negotiations are being conducted with a number of air carriers and scheduled airline service is anticipated in the near future. The airport is currently experiencing increased civil, military, air carrier, and air taxi aircraft operations at the average rate of approximately ten percent per year. Total aircraft operations ended December 31, 1979, were 60,880 operations. The scheduled installation of an Instrument Landing System (ILS) on Runway 14 and the designation of the Yuba County Airport as a satellite reliever airport is expected to accelerate the total number of aircraft operations at the airport.

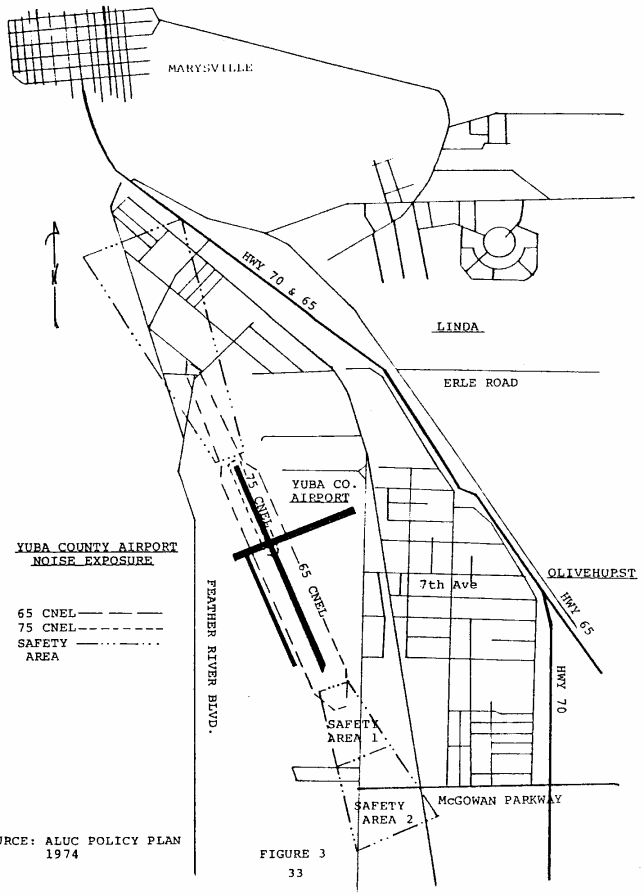
The effect of noise generated from airport operations must be taken into consideration by decision-makers; especially when considering residential land use. To accomplish this goal the Airport Land Use Commission has developed an Airport Noise Area (Figure 3) to illustrate the areas subjected to noise intrusion. The boundary for the Airport Noise Area is determined by using the California Noise Standard which sets forth that the criterion Community Noise Equivalent Level (CNEL) for existing civilian airports is 70 dB until December 31, 1985 and 75 dB thereafter. Accordingly, the 65 CNEL is used as the boundary for the noise control area. The State regulations established as a general standard that single family dwellings, mobilehomes and schools of standard construction are incompatible with levels above 65 dB CNEL.

Yuba County is also affected by another airport: Beale Air Force Base. While Beale AFB is located 10 miles east of Linda-Olivehurst the potential still exists for community annoyance from military flights.

The Air Force policy is to work toward achieving compatibility between air installations and the neighboring civil communities by means of a compatible land use planning and control process conducted by the local community. The system for identifying and assessing land use compatibility is derived from the Air Installation Compatible Use Zone (AICUZ) concept. This concept embodies a process of projecting, mapping and defining aircraft noise and accident potential areas around the air base. Land use compatibility guidelines, then applied to these areas, serve as the basis for Air Force recommendations on land use planning and control by the community. (NOTE: The AICUZ was being prepared at the same time as this document and until it is released the CNEL values shown on Figure 4 shall be the official guide for determining the noise environment.)

Due to the fact that a large portion of Yuba County is affected by Aircraft Noise from Beale AFB, it is recommended that proposed residential uses near Beale be carefully scrutinized for potential noise impact. Studies on residential aircraft noise compatibility recommend no residential uses in noise zones above CNEL 80. In addition, areas between CNEL 65-80 may not qualify for Federal mortgage insurance in residential categroies according to HUD Circular 1390.2 and may not be suitable for residential purposes.

The Air Force also indicates that from past experience, residential uses in these high noise areas adjacent to Air Force installations is quite undesirable. Their recommendation is, whenever possible, that residential uses should be located outside CNEL 65.



SOURCE: ALUC POLICY PLAN 1974

FIGURE 3

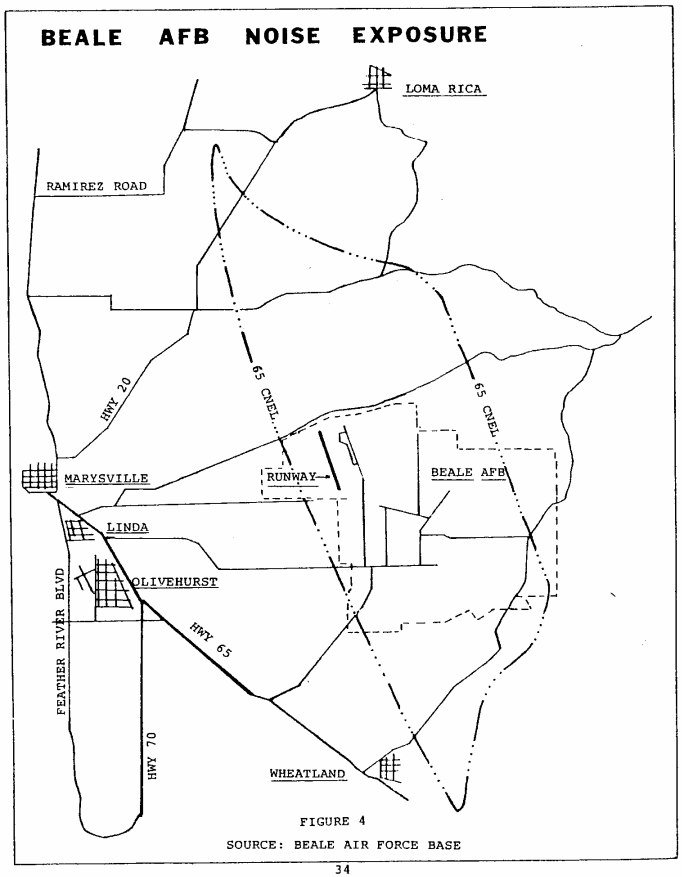


FIGURE 4

SOURCE: BEALE AIR FORCE BASE

RAILROAD SOURCES

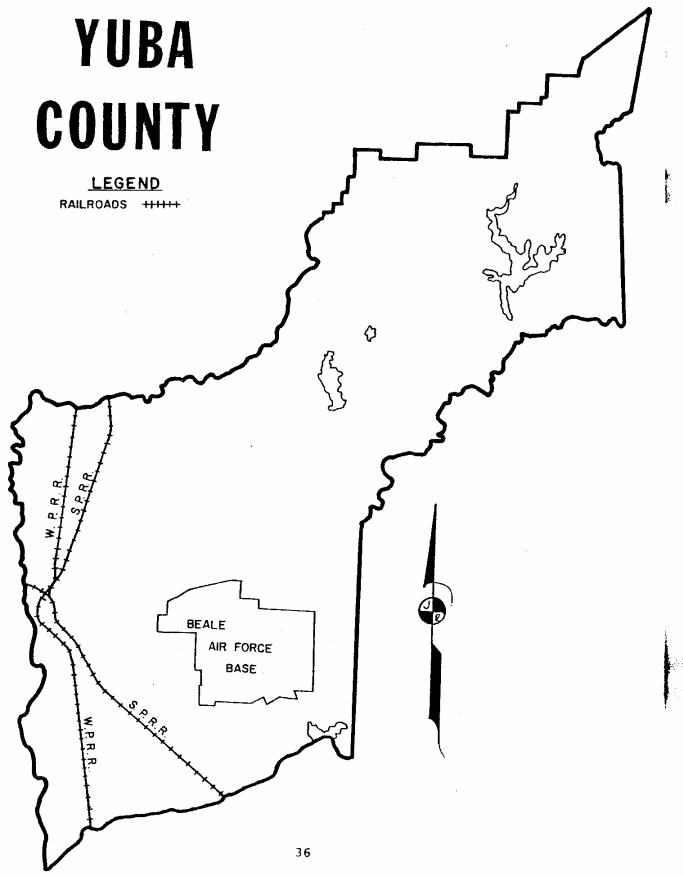
Within Yuba County there are two major railroad operations which contribute most of the noise generated by rail traffic, Southern Pacific and Western Pacific. Both of these railroads have line operations traversing Yuba County and have a potential for affecting a large population of the County. Several factors combine to produce railroad noises: length of train, speed, grade, type of track, number of engines and number of trips.

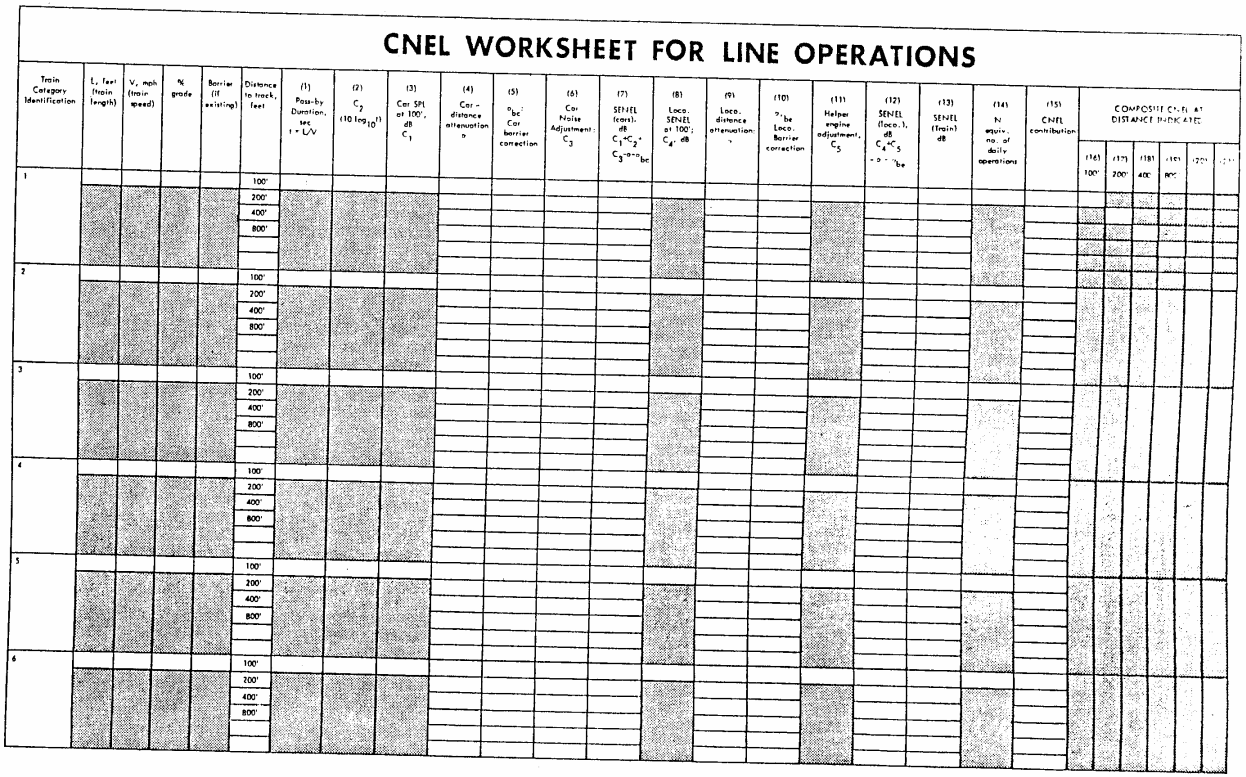
Neither Western Pacific nor Southern Pacific have switcher yard operations in this County and none to our knowledge is planned for the future.

The main tracks of Southern Pacific and Western Pacific Railroads traverse Yuba County in a north-south orientation and the tracks converge and cross in Marysville. Both of these railroads travel through heavily populated areas and have consistently high noise levels with all tracks carrying heavy freight traffic with as many nighttime as daytime operations. Rail traffic has not changed in the past three years and is not expected to increase significantly over the next 10 years.

For determining noise levels associated with the type operations on these two lines, the methodology presented in the Wyle Laboratories report, Assessment of Noise Environments Around Railroad Operations, was used. This CNEL worksheet, Figure 5, was used to determine the projected CNEL's for each category of track shown in Figure 6.

The Noise contours derived from this worksheet are to be utilized in determining noise compatible land uses in areas adjacent to these railroad operations.





CNEL WORKSHEET FOR LINE OPERATIONS

Train Category Identification	L, feet (train length)	V, mph (train speed)	% grade	Barrier (if existing)	Distance to track, feet	(1) Pass-by Duration, sec. $t = L/V$	(2) C_2 $(10 \log_{10} t)$	(3) Car SPL at 100', dB C_1	(4) Car - distance attenuation	(5) n_{bc}: Car barrier correction	(6) Car Noise Adjustment: C_3	(7) SENEL (cars), dB $C_1+C_2+C_3-n_{bc}$	(8) Loco. SENEL at 100'; C_4, dB	(9) Loco. distance attenuation:	(10) n_{be} Loco. Barrier correction	(11) Helper engine adjustment, C_5	(12) SENEL (loco.), dB C_4+C_5 - [illegible]	(13) SENEL (train) dB	(14) N equiv. no. of daily operations	(15) CNEL contribution	COMPOSITE CNEL AT DISTANCE INDICATED (16) 100'	(17) 200'	(18) 400'	(19) 800'	(20)	(21)
1					100'																				
					200'																				
					400'																				
					800'																				
2					100'																				
					200'																				
					400'																				
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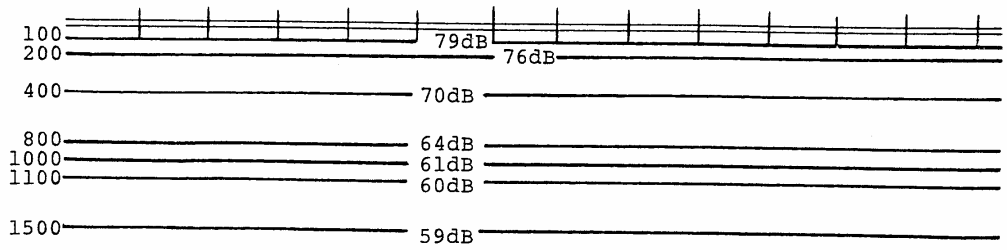
5					100'																				
					200'																				
					400'																				
					800'																				
6					100'																				
					200'																				
					400'																				
					800'																				

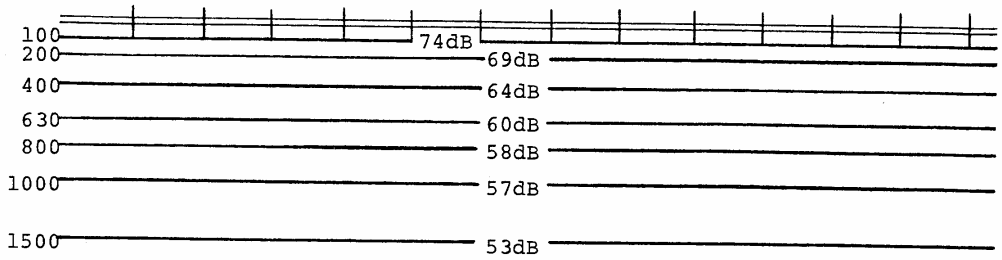
FIGURE 5

CNEL Worksheet for Line Operations SOURCE: WYLE LABORATORIES

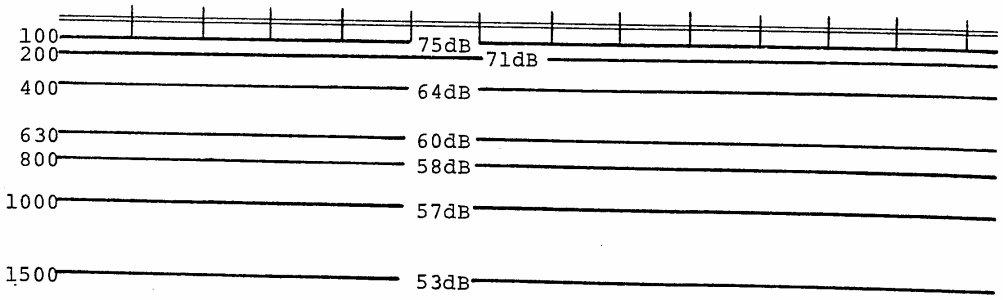
Category 1 (25 MPH Zone)
WESTERN PACIFIC LINE THROUGH
MARYSVILLE (LEVEL GRADE)



Category 2 (40 MPH Zone)
SOUTHERN PACIFIC LINE THROUGH
LINDA AND OLIVEHURST AREA (LEVEL GRADE)



Category 3 (60 MPH Zone)
WESTERN PACIFIC LINE FROM MARYSVILLE
NORTH TO COUNTY LINE (LEVEL GRADE)



NOTE: Noise Contours are
Symmetric About the Tracts
NOTE: Distances Are Measured in Feet from the Tracks.

FIGURE 6

SOURCE: YUBA COUNTY from WYLE LABORATORIES FORMULA

RECREATION VEHICLE SOURCES

The major contributing source of sound from recreation vehicles is the exhaust system. Motorcycles and some sports cars can be as loud as trucks and are often judged to be even more annoying. Pleasure boats and off-road vehicles are also a source of noise, especially in the foothills and mountainous areas of Yuba County.

INTERNAL COMBUSTION ENGINE SOURCES

Internal combustion engines such as lawn care equipment, chain saws, agricultural equipment, generators, etc., generally are not significant contributors to an ambient sound level. However, annoyance can be a by-product from the operation of these sound sources as isolated single-event occurrences.

CONSTRUCTION SOURCES

In recent years, sounds associated with construction projects have increasingly become a factor in the degradation of our acoustical environment. The amount of acoustical impact varies with the type of construction site (housing, public works, etc.) and the type of construction activity (excavation, erection, etc.) In virtually all construction equipment, the engine constitutes the primary sound source, particularly the intake and exhaust. Secondary contributors usually are cooling fans, transmission, and the interaction between machine and material.

INDUSTRIAL PLANT SOURCES

Industrial plant activity can range from a small garage operation to a large mutlimillion dollar, multiproduce operation. Groups of industrial plants, in general, raise an ambient level to such a magnitude that intrusive sounds due to an individual plant is masked or minimized. Intrusive sounds vary with the type of plant activity (facrication, processing, etc.). In addition to the sound produced by the industrial plant per se, additional sounds are generated by related activities such as truck deliveries.

Reliable data concerning noise levels is difficult to ascertain for a specific industrial site, but what information exists indicates that acceptable noise levels are reached only where adequate distance from noise generation is provided.

Most industrial activity in Yuba County is relatively isolated from the urbanized areas of the County and does not pose a serious noise problem. However, future residential and industrial expansion should not occur where these two land uses might conflict and the noise information contained in this document should be utilized to minimize possible conflicts.

SINGLE EVENT NOISES

Many of the previously discussed noise sources often have sporadic high noise levels which are often difficult to pinpoint to determine their exact source. Many farm operations and logging operations are intermittent noise producers and in many cases these

single event, short duration noises are difficult to measure but sometimes extremely annoying to nearby urbanized areas.

NOISE COMPATIBLE LAND USE PLANNING

A major objective of the Noise Element is to utilize this information to insure noise compatible land use planning. The intent of such planning is to: a) maintain those areas deemed accepable in terms of noise exposure; b) protect those areas deemed to be noise sensitive from the intrusion of incompatible noise generating sources; and c) zone specific areas of the County into "Manufacturing" and "Industrial" districts and locate major noise generating sources in these districts.

Land use planning is a tool which may be used to buffer and isolate those uses which are critically impacted by noise from those uses which are primary noise generators. Through wise and efficient land use management, the majority of noise pollution, particularly that which is created by fixed point noise sources, may be abated. Each land use within a community demands various types of environments within which to efficiently thrive. Residential areas, schools, hospitals and parks demand that the local environments be of a serene nature in order to provide the quality of environment which is demanded by local residents. Other land uses demand railroad spurs, good circulation routes and direct access to industrial/commercial sites. The basic patterns of

development within any particular community will vary; however, an attempt should be made to clearly separate those critically impacted land uses from primary noise generators as well as to adequately plan for the buffering and separation of major circulation routes and critically impacted noise receivers.

Each form of land use can tolerate various levels of noise intensity. It has been established that there are certain land uses which can be considered to be critically sensitive to noise and can tolerate only low ambient noise levels in order to function properly. Each land use must have a set standard for the emittance of ambient noise within which normal functioning may proceed. Figure 7 contains recommendations for ambient noise level standards which should occur within each land use area.

The ambient noise level standards which are shown in Figure 7 have been broken down into three basic categories: the lower range allowable db(A) standards for land uses are those which are critically impacted by noise and thus require a lower ambient noise level. Those land uses which are indicated in the mid-range demand ambient noise levels ranging from 50 to 60 db(A)'s during the evening hours. These mid-range land uses are not critically impacted by noise; however, a moderate range ambient noise level must be maintained in order to preserve the physical and economic environment within which they exist. The moderate range land uses primarily consist of residential, agricultural and neighborhood commercial facilities, all of which can be negatively impacted by noise pollution; however, through wise land use planning

FIGURE 7

RECOMMENDED AMBIENT ALLOWABLE
NOISE LEVEL OBJECTIVES*

IMPACT	LAND USE	7 A.M. to 10 P.M.	10 P.M. to 7 A.M.
Critically Impacted Land Uses	Hospitals/Mental Facilities	45 db(A)	40 db(A)
	Passive Recreation Areas	45 db(A)	45 db(A)
	Schools	45 db(A)	45 db(A)
Moderately Impacted Land Uses	Agriculture	50 db(A)	50 db(A)
	Low Density Residential	50 db(A)	50 db(A)
	Multi-Family Residential	55 db(A)	50 db(A)
	Neighborhood Commercial	55 db(A)	55 db(A)
	Professional Office	55 db(A)	55 db(A)
	Retail Commercial	60 db(A)	55 db(A)
Primary Noise Generators	Outdoor Stadiums & Active Recreation	70 db(A)	70 db(A)
	Light Manufacturing	70 db(A)	65 db(A)
	Heavy Manufacturing	75 db(A)	70 db(A)
	Airports**	75 db(A)	70 db(A)
	Pistol Ranges	75 db(A)	70 db(A)

Techniques for measuring noise levels must be established after purchase of particular types of measuring equipment. In addition, the Ordinance adopted by cities or the County must specify procedures for taking noise readings.

*These levels should be measured at the property line, 36 inches above the ground.

**Areas within the noise "footprint" area may have higher sound levels while aircraft are being tested or taking off and landing.

SOURCE: TULARE COUNTY NOISE ELEMENT

and application of acceptable noise level standards, preservation of their functional environment will be assured.

The last category in Figure 7 shows those uses which are primary noise generators and are generating noise in excess of 60 decibels during any 24 hour period. The primary noise generators consist of all of the manufacturing uses as well as some special uses such as airports, outdoor stadiums, and pistol ranges which, by their nature, transmit noise levels in excess of their moderate range. Those uses which have been identified as primary generators must be carefully planned in relationship to both the moderate range uses and particularly the critically impacted uses, so as to avoid any excess ambient noise level which would exceed the levels prescribed for both the moderate and critically impacted land uses.

MITIGATION MEASURES FOR NOISE CONTROL

Governmental policy responses to noise problems can address themselves to different aspects of noise generation and reception. First, noise generation can be abated by controls on the source. Secondly, insulating barriers can be placed between sound generators and receptors. Thirdly, noise sources and noise-sensitive uses can be located away from each other.

ENFORCEMENT AND IMPLEMENTATION OF NOISE STANDARDS

The following methods should be considered by Yuba County to minimize the problem of noise pollution and implement the policies of the previous section.

1. NOISE ORDINANCE - A noise ordinance should be developed and enforced by the Health Department to effectively protect the residents of the County from the ill effects to high levels of noise. Consider adopting the State's "Model Community Noise Ordinance" or a modification thereof. (Appendix 1)

2. NOISE PROGRAM - Support State and Federal regulations for reducing transportation noise. Consider noise sources in review of zoning and subdivision proposals. Locate noise sensitive uses away from railroads and highways. Develop noise contours around major sources where this information is not presently available.

3. MONITORING AND FIELD SAMPLING NOISE SOURCES - It is suggested that a County Department (possibly Environmental Health) be designated with the responsibility to monitor noise levels within the County. Such Department should be provided with the necessary equipment to establish a data base that will make the development of a noise ordinance a practical tool. In addition, this Department should have the capability of investigating noise sources and applying controls where necessary to minimize the threat of noise to the well-being of residents of Yuba County.

4. GENERAL PLAN - A key objective of the Noise Element is to provide noise exposure information for use in the Land Use Element. Section 65302(g) of the Government Code states that:

> "...noise exposure information shall be a guideline for use in development of the Land Use Element to achieve noise compatible land use.

APPENDIX 1

MODEL NOISE ORDINANCE

LEAGUE OF CALIFORNIA CITIES

Model Noise Ordinance-League of California Cities*

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY _____ ADDING CHAPTER _____ TO TITLE ____ OF THE _____ MUNICIPAL CODE PROHIBITING EMISSION OR CREATION OF NOISE BEYOND CERTAIN LEVELS.

THE CITY COUNCIL OF THE CITY OF _____ DOES ORDAIN AS FOLLOWS:

Chapter _____ consisting of six articles and entitled "Noise Regulation" is added to the _____ Municipal Code to read as follows:

CHAPTER _____. NOISE REGULATION

Article 1. General Provisions

Section _____. Declaration of Policy.

It is hereby declared to be the policy of the City to prohibit unnecessary, excessive, and annoying noises from all sources subject to its police power. At certain levels noises are detrimental to the health and welfare of the citizenry and in the public interests shall be systematically proscribed.

Section _____. Definitions.(1)**

As used in this chapter, unless the context otherwise clearly indicates, the words and phrases used in this chapter are defined as follows:

(a) Ambient Noise. "Ambient noise" is the all-encompassing noise associated with a given environment, being usually a composite of sounds from many sources near and far. For the purpose of this ordinance, ambient noise level is the level obtained when the noise level is averaged over a period of 15 minutes without inclusion of noise from isolated identifiable sources, at the location and time of day near that at which a comparison is to be made.

(b) Decibel. "Decibel" shall mean a unit of level when the base of the logarithm is the tenth root of ten and the quantities concerned are proportional to power.

(c) Emergency Work. "Emergency work" shall mean work made necessary to restore property to a safe condition following a public calamity or work required to protect persons or property from an imminent exposure to danger to work by private or public utilities when restoring utility service.

(d) Frequency. "Frequency" of a function periodic in time shall mean the reciprocal of the primitive period. The unit is the hertz and shall be specified.

* Abstract from The Quiet City Report - League of California Cities - 1973.

** References refer to footnotes in The Quiet City Report.

(e) Hertz. "Hertz" shall mean the complete sequence of values of a periodic quantity which occurs during a period.
(f) Microbar. "Microbar" shall mean a unit of pressure commonly used in acoustics and is equal to one (1) dyne per square centimeter.
(g) Period. "Period" of a periodic quantity shall mean the smallest increment of time for which the function repeats itself.
(h) Periodic Quantity. "Periodic quantity" shall mean oscillating quantity, the values of which recur for equal increments of time.
(i) Person. "Person" shall mean a person, firm, association, copartnership, joint venture, corporation, or any entity, public or private in nature. (2)
(j) Sound Level. "Sound level" (noise level), in decibels (dB) is the sound measured with the A weighting and slow response by a sound level meter.
(k) Sound Level Meter. "Sound level meter" shall mean an instrument including a microphone, an amplifier, an output meter, and frequency weighting networks for the measurement of sound levels which satisfies the pertinent requirements in American Standard Specifications for sound level meters S1.4-1971 or the most recent revision thereof.
(l) Motor Vehicles. "Motor vehicles" shall include, but not be limited to, mini-bikes and go-carts.
(m) Sound Amplifying Equipment. "Sound amplifying equipment" shall mean any machine or device for the amplification of the human voice, music or any other sound. "Sound amplifying equipment" shall not include standard automobile radios when used and heard only by the occupants of the vehicle in which the automobile radio is installed. "Sound amplifying equipment", as used in this chapter, shall not include warning devices on authorized emergency vehicles or horns or other warning devices on any vehicle used only for traffic safety purposes.
(n) Sound Truck. "Sound truck" shall mean any motor vehicle, or any other vehicle regardless of motive power, whether in motion or stationary, having mounted thereon, or attached thereto, any sound amplifying equipment.
(o) Commercial Purpose. "Commercial purpose" shall mean and include the use, operation, or maintenance of any sound amplifying equipment for the purpose of advertising any business, or any goods, or any services, or for the purpose of attracting the attention of the public to, or advertising for or soliciting patronage or customers to or for any performance, show, entertainment, exhibition, or event, or for the purpose of demonstrating such sound equipment.
(p) Noncommercial Purpose. "Noncommercial purpose" shall mean the use, operation, or maintenance of any sound equipment for other than a "commercial purpose." "Noncommercial purpose" shall mean and include, but shall not be limited to, philanthropic, political, patriotic, and charitable purposes.

Section _____. Sound Level Measurement Criteria.

Any sound level measurement made pursuant to the provisions of this chapter shall be measured with a sound level meter using the "A" weighting.

Section _____. Ambient Base Noise Level.

Where the ambient noise level is less than designated in this section the respective noise level in this section shall govern.

		Sound Level A, decibels		
		Community Environment Classification		
Zone	Time	Very Quiet (rural, suburban)	Quiet (suburban)	Slightly noisy (suburban, urban)
R1 and R2	10 pm to 7 am	40	45	50
"	7 pm to 10 pm	45	50	55
"	7 am to 7 pm	50	55	60
R3 and R4	10 pm to 7 am	45	50	55
"	7 am to 10 pm	50	55	60
Commercial	10 pm to 7 am	55	60	
"	7 am to 10 pm	60	65	
M1	anytime	70	70	
M2	anytime	75	75	(3)

Section _____. Violations: Misdemeanors.

Any person violating any of the provisions of this chapter shall be deemed guilty of a misdemeanor and upon conviction thereof, shall be fined in an amount not exceeding(4) Five Hundred and no/100ths Dollars ($500.00) or be imprisoned in the City or County Jail for a period not exceeding six (6) months, or by both such fine and imprisonment. Each day such violation is committed or permitted to continue shall constitute a separate offense and shall be punishable as such.

Section _____. Violations: Additional Remedies: Injunctions.

As an additional remedy, the operation or maintenance of any device, instrument, vehicle, or machinery in violation of any provision of this chapter, which operation or maintenance cause discomfort or annoyance to reasonable persons of normal sensitiveness or which endangers the comfort, repose, health, or peace of residents in the area, shall be deemed and is declared to be, a public nuisance and may be subject to abatement summarily by a restraining order or injunction issued by a court of competent jurisdiction.

Section _____. Severability.

If any provision, clause, sentence or paragraph of this chapter or the application thereof to any person or circumstances, shall be held invalid, such invalidity shall not effect the other provisions or applications of the provisions of this chapter which can be given effect without the invalid provisions or application and, to this end, the provisions of this chapter are hereby declared to be severable.

Article 2. Special Noise Sources

Section _____. Radios, Television Sets, and Similar Devices.

(a) Use restricted. It shall be unlawful for any person within any residential zone of the City to use or operate any radio receiving set, musical instrument, phonograph, television set, or other machine or device for the producing or reproducing of sound (between the hours of 10:00 p.m. of one day and 7:00 a.m. of the following day)(5) in such a manner as to disturb the peace, quiet, and comfort of neighboring residents or any reasonable person of normal sensitiveness residing in the area. (6)

(b) Prima facie violation.(7) Any noise level exceeding the ambient base level at the property line of any property (or, if a condominium or apartment house, within any adjoining apartment) by more than five (5) decibels(8) shall be deemed to be prima facie evidence of a violation of the provisions of this section.

Section _____. Hawkers and Peddlers.

It shall be unlawful for any person within the City to sell anything by outcry within any area of the City zoned for residential uses. The provisions of this section shall not be construed to prohibit the selling by outcry of merchandise, food, and beverages at licensed sporting events, parades, fairs, circuses, and other similar licensed public entertainment events.

Section _____. Drums.

(a) Use restricted. It shall be unlawful for any person to use any drum or other instrument or device of any kind for the purpose of attracting attention by the creation of noise within the City. This section shall not apply to any person who is a participant in a school band or duly licensed parade or who has been otherwise duly authorized to engage in such conduct.

Section _____. Schools, Hospitals and Churches.

It shall be unlawful for any person to create any noise on any street, sidewalk, or public place adjacent to any school, institution of learning, or church while the same is in use or adjacent to any hospital, which noise unreasonably interferes with the workings of such institution or which disturbs or unduly annoys patients in the hospital, provided conspicuous signs are displayed in such streets, sidewalk or public place indicating the presence of a school, church, or hospital.(9)

Section _____. Animals and Fowl.

No person shall keep or maintain, or permit the keeping of, upon any premises owned, occupied, or controlled by such person any animal or fowl otherwise permitted to be kept which, by any sound, cry, or behavior, shall cause annoyance or discomfort to a reasonable person of normal sensitiveness in any residential neighborhood.

Section _____. Machinery, Equipment, Fans, and Air Conditioning.

It shall be unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus, or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient base noise level by more than five (5) decibels. (10)

Article 3. Construction.

Section _____. Construction of Buildings and Projects.

It shall be unlawful for any person within a residential zone, or within a radius of 500 feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures, or projects or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction type device (between the hours of ____ p.m. of one day and ____a.m. of the next day)(11) in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance unless beforehand a permit therefor has been duly obtained from (the office or body of the City having the function to issue permits of this kind). No permit shall be required to perform emergency work as defined in Article 1 of this chapter.

Article 4. Vehicles.

Section _____. Vehicle Repairs.

It shall be unlawful for any person within any residential area of the City to repair, rebuild, or test any motor vehicle (between the hours of ____ p.m. of one day and ____ a.m. of the next day) in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance.

Section _____. Motor Driven Vehicles.

It shall be unlawful for any person to operate any motor driven vehicle within the City in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance; provided, however, any such vehicle which is operated upon any public highway, street, or right-of-way shall be excluded from the provisions of this section. (12)

Article 5. Amplified Sound. (13)

Section _____. Purpose.

The Council enacts this legislation for the sole purpose of securing and promoting the public health, comfort, safety, and welfare of its citizenry. While recognizing that the use of sound amplifying equipment is protected by the constitutional rights of freedom of speech and assembly, the Council nevertheless feels obligated to reasonably regulate the use of sound amplifying equipment in order to protect the correlative constitutional rights of the citizens of this community to privacy and freedom from public nuisance of loud and unnecessary noise.

Section _____. Registration: Required.

It shall be unlawful for any person, other than personnel of law enforcement or governmental agencies, to install, use, or operate within the City a loudspeaker or sound amplifying equipment in a fixed or movable position or mounted upon any sound truck for the purposes of giving instructions, directions, talks, addresses, lectures, or transmitting music to any persons or assemblages of persons in or upon any street, alley, sidewalk, park, place, or public property without first filing a registration statement and obtaining approval thereof as set forth in this Article.

Section _____. Registration: Requirements and Duties.

(a) Registration statements: Filing. Every user of sound amplifying equipment shall file a registration statement with the (officer or department) _____ ( ) days(14) prior to the date on which the sound amplifying equipment is intended to be used, which statement shall contain the following information:

(1) The name, address and telephone number of both the owner and user of the sound amplifying equipment;
(2) The maximum sound producing power of the sound amplifying equipment which shall include the wattage to be used, the volume in decibels of sound which will be produced, and the approximate distance for which sound will be audible from the sound amplifying equipment;
(3) The license and motor number if a sound truck is to be used;
(4) A general description of the sound amplifying equipment which is to be used; and
(5) Whether the sound amplifying equipment will be used for commercial or noncommercial purposes. (15)

(b) Registration Statements: Approval. (Office or department approving registration statement) shall return to the applicant an approved certified copy of the registration statement unless he finds that:

(1) The conditions of the motor vehicle movement are such that in the opinion of _____, use of the equipment would constitute a detriment to traffic safety; or
(2) The conditions of pedestrian movement are such that use of the equipment would constitute a detriment to traffic safety; (16) or
(3) The registration statement required reveals that the applicant would violate the provisions set forth in Section ___ of this Article or any other provisions of this Code.

(c) Disapproval. In the event the registration statement is disapproved, the _____ shall endorse upon the statement his reasons for disapproval and return it forthwith to applicant.

Section _____. Appeals.

Any person aggrieved by disapproval of a registration statement may appeal by complying with the provisions of Section _____ of this Code relating to appeals.

Section _____. Fees.

Prior to the issuance of the registration statement, a fee in the amount of $_____ per day, or any portion thereof, shall be paid to the City, if the loudspeaker or sound amplifying equipment is to be used for commercial purposes. (17) No fee shall be required for the operation of a loudspeaker or sound amplifying equipment for noncommercial purposes.

Section _____. Regulations.

The commercial and noncommercial use of sound amplifying equipment shall be subject to the following regulations:

(a) The only sounds permitted shall be either music or human speech, or both.

(b) The operation of sound amplifying equipment shall only occur between the hours of _____ a.m. and _____ p.m. each day except on Sundays and legal holidays. No operation of sound amplifying equipment for commercial purposes shall be permitted on Sundays or legal holidays. The operation of sound amplifying equipment for noncommercial purposes on Sundays and legal holidays shall only occur between the hours of _____ a.m. and _____ p.m.

(c) Sound level emanating from sound amplifying equipment shall not exceed (15) decibels above the ambient base noise level.(18)

(d) Notwithstanding the provisions of subsection (c) of this section, sound amplifying equipment shall not be operated within 200 feet of churches, schools, hospitals, or City or County buildings.

(e) In any event, the volume of sound shall be so controlled that it will not be unreasonably loud, raucous, jarring, disturbing, or a nuisance to reasonable persons of normal sensitiveness within the area of audibility.

(OPTIONAL PROVISION)

Article _____. Train Horns and Whistles (19)

Section _____. Excessive Sound Prohibited.

It shall be unlawful for any person to operate or sound, or cause to be operated or sounded, (between the hours of 10:00 p.m. of one day and 7:00 a.m. of the next day) (20) a train horn or train whistle which creates a noise level in excess of eighty-nine (89) decibels at any place or point 300 feet or more distant from the source of such sound.

Article 6. General Noise Regulations

Notwithstanding any other provision of this chapter, and in addition thereto, it shall be unlawful for any person to wilfully make

or continue, or cause to be made or continued, any loud, unnecessary, or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.(21)

The standards which shall be considered in determining whether a violation of the provisions of this section exists shall include, but not be limited to, the following:

(a) The level of the noise;
(b) The intensity of the noise;
(c) Whether the nature of the noise is usual or unusual;
(d) Whether the origin of the noise is natural or unnatural;
(e) The level and intensity of the background noise, if any;
(f) The proximity of the noise to residential sleeping facilities;
(g) The nature and zoning of the area within which the noise emanates;
(h) The density of the inhabitation of the area within which the noise emanates;
(i) The time of the day or night the noise occurs;
(j) The duration of the noise;
(k) Whether the noise is recurrent, intermittent, or constant; and
(l) Whether the noise is produced by a commercial or non-commercial activity.

APPENDIX 2

(NOISE ELEMENT)

STATE OF CALIFORNIA—TRANSPORTATION AGENCY

EDMUND G. BROWN JR., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 3
P.O. BOX 911, MARYSVILLE 95901
Telephone (916) 674-4242

March 2, 1978

03 - Noise, General

County of Yuba
Planning & Economic
Development Department
938 14th Street
Marysville, California 95901

Attention Mr. Michael E. Hays

Gentlemen:

Attached are noise contour tables covering all State Highways in Yuba County (Routes 20, 49, 65, and 70) as requested in your letter of January 30, 1978.

The information is provided in accordance with Section 65302(g) of the Government Code for your use in developing the noise element for the County General Plan.

The data is presented in terms of day-night average noise levels (L_{dn}) as determined by methodology dictated by the Office of Noise Control, State of California, Department of Health, in their report entitled: ESTIMATION OF COMMUNITY NOISE EXPOSURE IN TERMS OF DAY-NIGHT AVERAGE LEVEL NOISE CONTOURS, by Jack W. Swing, dated May, 1975. A copy of this report was sent to your office December 27, 1977.

We do not maintain day-night traffic data. Accordingly, the attached tables were developed by applying the aforementioned methodology only through step #3, which includes the following assumptions:

1. Flat terrain—no adjustment for cut-fill sections, buildings, etc.

2. Day-night traffic volume split of 87%-13%, respectively.

3. Four percent trucks on low speed highways—ten percent trucks on high speed highways.

4. Includes only traffic noise from the state highway.

Further, the methodology is limited to high volume (≥ 20,000 ADT) highways with a differentiation only between high speed and low speed facilities. As such, the tables include only two possible sets of contours for highways with less than 20,000 ADT; i.e., one for low speed highways, and one for high speed highways.

The traffic volumes (1978—1998) utilized in developing the tables were estimated by applying an expansion factor (from the current State Highway Inventory) to traffic volumes in the 1976 Traffic Volumes Manual. Please note that no attempt was made to analyze the capability of existing facilities to handle estimated future traffic volumes.

As discussed by telephone with Mr. Michael Hays, the noise information is being presented in tabular form rather than by contours drawn on maps.

We hope this information will be useful in your efforts to develop the noise element for the County General Plan. Questions regarding this material may be directed to Mr. R. D. Skidmore (telephone 674-4277).

Sincerely,

LEO J. TROMBATORE
District Director of Transportation

E. F. Galligan

E. F. Galligan
Deputy District Director
Transportation Planning

APPENDIX 3

COMMENTS ON DRAFT NOISE ELEMENT

EDMUND G. BROWN JR.
GOVERNOR

State of California
GOVERNOR'S OFFICE
OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814
(916) 445-0613

April 4, 1980

Brian Trudgeon
Yuba County Planning Dept.
938 14th Street
Marysville, CA 95901

Subject: SCH# 80022204 Noise Element of The Yuba County General Plan

Dear Mr. Trudgeon:

The State Clearinghouse submitted the above listed environmental document to selected State agencies for review. The review is complete and none of the State agencies have comments.

This letter verifies your compliance with environmental review requirements of the California Environmental Quality Act.

Thank you for your cooperation.

Sincerely,

Stephen Williamson
State Clearinghouse

SW/ag

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 100TH COMBAT SUPPORT GROUP (SAC)
BEALE AIR FORCE BASE, CALIFORNIA, 95903

REPLY TO ATTN OF: DEEV (Mr. Henderson, 4485) 27 February 1980

SUBJECT: Draft Noise Element

TO: County of Yuba
Planning and Economic Development
Department
938 14th Street, Room 89
Marysville, Ca 95901
Attn: Brian W. Trudgeon

RECEIVED
MAR 03 1980
COUNTY OF YUBA
PLANNING DEPARTMENT

We have reviewed the Draft Noise Element of the Yuba County General Plan and have no comments as there is no conflict with Air Force policy.

DONALD A. DORAN, Colonel, USAF
Base Civil Engineer

COUNTY OF YUBA

Inter-Department Correspondence

February 21, 1980

TO: HERB WIELAND, Director of Planning

FROM: TOM W. HART, Airport Manager & Director of Industrial Development

SUBJECT: DRAFT NOISE ELEMENT OF THE YUBA COUNTY GENERAL PLAN (REFERENCE PAGE 23)

It is recommended that the first paragraph of the text shown on page 23 of the draft noise element be deleted and that the following be inserted as a replacement to the first paragraph:

> The Yuba County Airport is a general aviation airport with no scheduled airline service at the present time. Negotiations are being conducted with a number of air carriers and scheduled airline service is anticipated in the near future. The airport is currently experiencing increased civil, military, air carrier, and air taxi aircraft operations at the average rate of approximately ten percent per year. Total aircraft operations ended December 31, 1979, were 60,880 operations. The scheduled installation of an Instrument Landing System (ILS) on Runway 14 and the designation of the Yuba County Airport as a satellite reliever airport is expected to accelerate the total number of aircraft operations at the airport.

TWH:mh

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY EDMUND G. BROWN JR., Governor

DEPARTMENT OF HEALTH SERVICES

2151 BERKELEY WAY
BERKELEY 94704
(415) 540-2657

March 18, 1980

Mr. Brian W. Trudgeon
COUNTY OF YUBA
Planning & Economic Development Department
938 14th Street, Room #89
Marysville, California 95901

Dear Mr. Trudgeon:

Per your request of March 3, 1980 I have reviewed the Draft Noise Element for the Yuba County General Plan.

In most aspects the Noise Element appears adequate and meets the guidelines prepared by this office. There are several topics which I feel should be given more attention, however. They are the following:

1. Noise levels for rail yard operations.
2. Noise measurements of stationary sources (such as sawmills and power plants).
3. Ambient noise levels in areas where quiet is a resource to be protected (such as wilderness areas and health centers).
4. An inventory of the population exposed to various levels of noise. (This may be difficult to determine from the available census data and because of the dispersed pattern of the population in Yuba County, but some rough estimates should be made.)

I hope these comments will be helpful. If you have any questions, please do not hesitate to contact me.

Yours truly,

Russell B. DuPree
Noise Control Engineer
Office of Noise Control

RBD:dn

APPENDIX 4

ENVIRONMENTAL IMPACT REPORT

DESCRIPTION OF PROJECT

The Noise Element is one of nine General Plan Elements that are statutorily mandated pursuant to Section 65000 et. seq. of the California Government Code. Section 65302(g) as amended by Senate Bill 860 provides guidelines for the preparation of such Noise Element.

DESCRIPTION OF THE ENVIRONMENTAL SETTING

Yuba County contains 640 square miles and is located on the northeastern edge of California's vast Central Valley and approximately 40 miles north of Sacramento which is the State's capitol. This valley contains most of the State's agricultural land and, therefore, Yuba is primarily a rural County. Only a small portion of Yuba County is urbanized (5%), most of which is concentrated along its western boundary near the confluence of the Yuba and Feather Rivers.

ENVIRONMENTAL IMPACT OF THE PROJECT

The following information describes, to the fullest extent possible, effects on the natural and man-made environment that would result from implementation of the goals and policies of this report. It is not possible to define or quantify specific environmental effects resulting from the adoption of the Noise Element since they cannot be predicted with any certainty at this time. Therefore, the following description of potential environmental effects will only be evaluated in general terms.

Since the Noise Element is not self-executing and depends upon implementation of the policies and goals, the adoption of the Noise Element will not produce any direct environmental effect. Any effects will relate to the degree of implementation. In order to ascertain the likely nature of any environmental effects, the following areas of environmental concern are summarized.

LAND USE PATTERNS:

Minor shifts in existing and planned land use patterns could occur. These minor shifts would be created by the social, physiological and psychological need to increase the distance between noise sensitive land uses and noise sources. Subsequently, any potential land use shift may create pressure to develop productive agricultural lands or areas of unique vegetative or wildlife habitats. These pressures and associated detrimental impacts could be avoided with adequate provision of areas planned for development away from noise sources.

NATURAL RESOURCES:

No negative environmental effects upon our natural resources will occur. In fact, adopting and implementing the Noise Element will protect wildlife from harmful and annoying sounds and also protect vegetation for its sound abating properties.

VISUAL:

No visual amenities indigenous to Yuba County will be adversely affected. The existing visual amenities may act as carriers of sound sources and may abate or mask noises. If properly constructed

and adapted to the individual setting, the planting of trees or construction of an earthen berm could both attenuate noise and add to an area's visual qualities.

CIRCULATION:

A diversion and/or limitation of various transportation modes may occur to protect noise sensitive land uses from annoying and harmful sounds. Depending upon the degree of implementation, any transportation diversion and/or limitation will foster an increased enhancement of Yuba County's acoustical environment.

PUBLIC SERVICES/COMMUNITY FACILITIES:

The degree of provision and the location of public services/community facilities could have an effect upon the acoustical environment of isolated areas. However, any existing or potential environmental effect can be mitigated or even avoided with the adoption and implementation of the Noise Element.

DEMOGRAPHY/HOUSING:

The adoption and implementation of the Noise Element would mitigate or avoid any negative acoustical effects related to the location and housing of Yuba County's growing population.

ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROJECT IS IMPLEMENTED:

No adverse environmental effects will occur if the Noise Element is implemented and in most cases implementation will improve the environment.

MITIGATION MEASURES TO MINIMIZE THE ADVERSE ENVIRONMENTAL EFFECTS:

Since no adverse environmental effects will occur if the Noise Element is implemented and since the intent of the Noise Element is to foster enhancement of Yuba County's acoustical environment, no mitigation measures are necessary.

ALTERNATIVES TO THE PROPOSED PROJECT:

Since the State requires the preparation and adoption of a Noise Element, a no-action alternative was not considered.

RELATIONSHIP BETWEEN SHORT TERM USE OF MAN'S ENVIRONMENT, AND THE MAINTENANCE AND ENHANCEMENT OF LONG TERM PRODUCTIVITY:

The Noise Element seeks to maintain the existing acoustical environment by imposing some constraints on existing and proposed land uses. The long term effect would be a healthier and less annoying acoustical environment for present and future generations.

IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED:

Any environmental changes that may occur from the implementation of the Noise Element would be small but beneficial, and most likely difficult to discern.

GROWTH INDUCING IMPACT OF THE PROPOSED PROJECT:

Adoption and implementation of the Noise Element will not have a growth inducing impact upon Yuba County; however, it will make Yuba County a better place to live.

BIBLIOGRAPHY

1. Butte County Planning Department, Noise Element, January 1977.
2. California State Department of Health, Office of Noise Control, February 1976. Guidelines for the Preparation and Content of Noise Elements of the General Plan.
3. California Department of Public Health, 1971, A Report to the 1971 Legislature on the Subject of Noise Pursuant to Assembly Concurrent Resolution 165.
4. California Department of Transportation, February 1978, Noise Contours Tables for State Highways in Yuba County.
5. Department of the Air Force, Jan 1974, Vicinity Noise Map for Beale Air Force Base.
6. League of California Cities, 1973, Model Noise Ordinance.
7. Monterey County Planning Department, Noise Element, November 1975
8. Sacramento Regional Area Planning Commission, June 1974, Airport Land Use Commission Policy Plan for Yuba County.
9. Swing, Jack W., May 1975, Estimation of Community Noise Exposure in Terms of Day-Night Average Level Noise Contours, Calif. State Dept. of Health, Office of Noise Control.
10. Tulare County Planning Department, October 1975, Noise Element.
11. U. S. Environmental Protection Agency, March 1974, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.
12. Wyle Laboratories Research Staff, July 1973, Assessment of Noise Environments Around Railroad Operations.