



7.0 PUBLIC SAFETY

7.0 Introduction

Inyo County is subject to a variety of natural and man-made hazards that could potentially affect County residents and visitors. This element identifies goals, policies and implementation measures designed to maintain a safe environment and to protect public safety and property. This element is divided into the following six topic areas:

- AQ Air Quality (Section 7.1)
- FLD Flood Hazards (Section 7.2)
- AVL Avalanches (Section 7.3)
- WF Wildfires (Section 7.4)
- GEO Geologic and Seismic Hazards (Section 7.5)
- NOI Noise (Section 7.6)

In addition to the topics listed above, this General Plan also describes emergency response capabilities (sheriff and fire protection) and existing emergency plans in Section 2.1, “Public Services and Utilities.”



7.1 Air Quality

Air quality is a major issue affecting Inyo County. The Great Basin Unified Air Pollution Control District (GBUAPCD) is responsible for developing air quality plans, monitoring air quality, and reporting air quality data for the Great Basin air basin. The GBUAPCD works with other regional and local governments to reduce air pollutant emissions through regulation of the various sources.

7.1.1 Definitions

Ozone. Ozone is a pungent, colorless toxic gas created in the atmosphere rather than emitted directly into the air. Ozone is produced in complex atmospheric reactions involving oxides of nitrogen and reactive organic gases with ultraviolet energy from the sun. Motor vehicles are the major sources of these ozone precursors.

Photochemical. Some air pollutants are direct emissions, such as the carbon monoxide that is part of the exhaust from an automobile. Other pollutants, primarily ozone, are formed when two or more chemicals react (using energy from the sun) in the atmosphere to form a new chemical. This is a photochemical reaction.

PM10. Dust and other particulates come in a range of particle sizes. Federal and state air quality regulations reflect the fact that smaller particles are easier to inhale and can be more damaging to health. PM10 refers to dust/particulates that are 10 microns in diameter or smaller.

PM2.5. Dust/particulates that are 2.5 microns in diameter or smaller.

7.1.2 Goals & Policies

GOAL AQ-1	Provide good air quality for Inyo County to reduce impacts to human health and the economy.
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Policy AQ-1.1 Regulations to Reduce PM10

Support the implementation of the State Implementation Plan and the agreement between GBUAPCD and the LADWP to reduce PM10.

Policy AQ-1.2 Attainment Programs

Participate in the GBUAPCD's attainment programs.



Policy AQ-1.3 Dust Suppression During Construction

Require dust-suppression measures for grading activities.

Policy AQ-1.4 Energy Conservation

Encourage the use of energy-conservation devices in public and private buildings.

Policy AQ-1.5 Monitor Regional Development

Publicly object to development proposals within the region that do not adequately address and mitigate air quality impacts, especially fugitive dust.

Policy AQ-1.6 Increased Emissions from Climate Change

Implement climate change adaptation strategies to include tracking, evaluating, and addressing the impacts from emissions resulting from new development proposals.

7.1.3 Implementation Measures

Table 7-1, Air Quality Implementation Measures, identifies the implementation measures the County should take to implement the goals and policies of this General Plan. The implementation program lists each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.

Table 7-1. Air Quality Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012- 2015	2015- 2020	On- going
1.0 Work with the LADWP and the GBUAPCD to reduce wind-raised dust from Owens Lake.	AQ-1.1	GBUAPCD LADWP Water			■
2.0 Work with the GBUAPCD to develop programs and project review requirements that will reduce air pollution generation, especially PM10.	AQ-1.2	Planning			■



Table 7-1. Air Quality Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012- 2015	2015- 2020	On- going
<p>The County shall require large development projects (hospitals, schools, high-occupancy public facilities, and industrial/commercial facilities over 20,000 square feet) to mitigate air quality impacts. Mitigations may include, but is not limited to the following:</p>					
3.0	<ul style="list-style-type: none"> ▪ providing bicycle access and parking facilities, ▪ provide preferential parking for high-occupancy vehicles and car pools, and ▪ establishing telecommuting programs or satellite work centers 	AQ-1.2	Planning		■



Table 7-1. Air Quality Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012- 2015	2015- 2020	On- going
<p>The County shall require contractors to implement dust suppression measures during excavation, grading, and site preparation activities. Techniques may include, but are not limited to the following:</p> <ul style="list-style-type: none"> ▪ site watering or application of dust suppressants, ▪ phasing or extension of grading operations, ▪ covering of stockpiles, ▪ suspension of grading activities during high wind periods (typically winds greater than 25 miles per hour), and ▪ revegetation of graded site. 	AQ-1.3	Public Works Building and Safety			■
<p>The County shall utilize energy-conserving equipment in public buildings and shall provide informational materials to the private sector to encourage the use of such materials in project design.</p>	AQ-1.4	Building and Safety			■
<p>The County shall review development proposals outside the County that are regionally significant, and could add to existing air quality issues.</p>	AQ-1.5	Planning			■



Table 7-1. Air Quality Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012- 2015	2015- 2020	On- going
<u>7.0</u> <u>Evaluate the impacts from emissions for all new development proposals, as a tool for adapting to climate change.</u>	<u>AQ-1.6</u>	<u>Planning</u>			<u>■</u>



7.2 FLOOD HAZARD

7.2.1 Definitions

In using this element and the goals, policies, and implementation measures that address flood hazard issues, the following definition will apply.

100-Year Flood Zone. ~~The 100-year flood zone is the land bordering a waterway that is subject to floods more often than once, but not as frequently as twice in a century.~~ Defined by the Federal Emergency Management Agency (FEMA) as the flood having a one percent chance of being equaled or exceeded in any given year.

7.2.2 Goals & Policies

GOAL FLD-1	Provide adequate flood protection to minimize hazards and structural damage.
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Policy FLD-1.1 Floodplain Limitations

The County shall regulate development of habitable structures within floodplain areas (as established by FEMA), and areas within dam inundation zones, ~~(as recorded by the California Office of Emergency Services.~~

Policy FLD-1.2 Development in Floodplain

Prior to approval of any development in a floodplain area, the project applicant shall demonstrate that such development will not adversely impact downstream properties.

Policy FLD-1.3 Mudflow Constraints

Discourage development within known or potential courses of mudflows.

Policy FLD-1.4 Channelization

The natural condition of watercourses is to be maintained whenever feasible. The County shall discourage the channelization of watercourses unless necessary for the protection of public safety. If alterations of a watercourse are found to be necessary, the alterations shall be engineered to preserve or restore the natural characteristics of the watercourse to the greatest extent possible.

Policy FLD-1.5 Maintenance of Levees

Existing levees should be maintained and upgraded, if necessary, to provide adequate flood protection.

Policy FLD-1.6 Stormwater Retention/Detention and Groundwater Recharge

Develop stormwater retention/detention ponds and groundwater recharge areas to make efficient use of stormwater and to direct water away from hazard areas.



Policy FLD-1.7 Limit Surface Runoff

Require that water runoff from urban development project sites not contribute to flooding hazards for downstream areas.

7.2.3 Implementation Measures

Table 7-2, Flood Hazard Implementation Measures, identifies the implementation measures the County should take to implement the goals and policies of this General Plan. The implementation program lists each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.

Table 7-2. Flood Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
1.0 The County shall collect and maintain data/maps showing locations of future flooding or inundation, and shall make these maps available to the public for their use.	FLD-1.1	Public Works Southern California Edison LADWP	■		■
2.0 FEMA maps and other available information (Implementation Measure 1.0) shall be consulted in the review of development proposals to ensure that development of inhabitable structures would not occur within floodplains without adequate mitigation.	FLD-1.1	Planning			■



Table 7-2. Flood Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
3.0 Natural washes (defined as riparian areas and drainages) and areas defined as a 100-year floodplains are to be kept free from development that would adversely significantly impact floodway capacity or characteristics, natural/riparian areas, or natural groundwater recharge areas.	FLD-1.2	Planning			■
4.0 Public and private development projects will be evaluated to determine the effects of the projects on on-site and downstream drainage patterns and associated ecological systems as part of the CEQA review process. Projects shall be mitigated to eliminate significant downstream impacts.	FLD-1.2 FLD-1.7	Planning			■
5.0 The County shall identify and map areas of known landslides and mudflows.	FLD-1.3	Planning Public Works	■		■



Table 7-2. Flood Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
6.0 County maintained information on mudflows (Implementation Measure 5.0) shall be consulted in the review of development proposals to restrict <u>and/or mitigate</u> development of inhabitable structures from these areas.	FLD-1.3	Planning			■
7.0 Work with the Corps of Engineers and other appropriate agencies to develop alternative solutions to flood control other than lined channels.	FLD-1.4	Planning Public Works			■
8.0 Identify damaged and/or deficient levees and acquire funding to restore or upgrade these facilities.	FLD-1.5	Public Works			■
9.0 The County shall work with the Corps of Engineers and other appropriate agencies to develop stormwater retention/detention and recharge facilities to enhance flood protection and enhance groundwater recharge.	FLD-1.6	Public Works			■



Table 7-2. Flood Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012- 2015	2015- 2020	On- going
10.0 On-site detention facilities and velocity reducers will be required when necessary to maintain existing storm flows and velocities in natural drainage systems.	FLD-1.7	Public Works			■



7.3 Avalanche Hazard

7.3.1 Definitions

In using this element and the goals, policies, and implementation measures that address avalanche hazard issues, the following definitions will apply.

Avalanche. A mass of snow or ice and other material that may become incorporated therein as such mass moves rapidly down a mountain slope.

Powder Avalanche. Low-density, turbulent, high-velocity suspension of fine-grained snow particles accompanying fast moving, dry-snow avalanches and usually traveling farther into the runout zone than the dense avalanche debris.

Runout Zone. The lower portion of the avalanche path where avalanches decelerate and stop and a snow deposit occurs.

Wet-Snow Avalanche. An avalanche comprised primarily of wet, dense snow moving at moderate velocities.

7.3.2 Goals & Policies

GOAL AVL-1	Minimize hazards and structural damage resulting from avalanches.
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Policy AVL-1.1 Limitations on Development

Discourage new development in areas of known or potential avalanche hazard.

Policy AVL-1.2 Education of Hazards

Provide education to the community and visitors on the hazards of avalanches.

Policy AVL-1.3 Access

Discourage access to avalanche-prone areas during hazardous conditions.

Policy AVL-1.4 Protect Existing Land Uses

Require structural protections for new buildings in an avalanche hazard zones or area otherwise identified as being at risk of avalanche damage.

Policy AVL-1.5 Emergency and Rescue Services

Provide emergency and rescue services for avalanche events.



Policy AVL-1.6 Emergency Preparedness and Response

Support implementation of the County Standardized Emergency Management System (SEMS).

Policy AVL-1.7 Disclosure of Avalanche Hazard

Require deeds on properties in potential avalanche hazard areas to be flagged or recorded (when property is sold) with information stating the avalanche hazard.

7.3.3 Implementation Measures

Table 7-3, Avalanche Hazard Implementation Measures, identifies the implementation measures the County should take to implement the goals and policies of this General Plan. The implementation program lists each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.

Table 7-3. Avalanche Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
1.0 The County shall update and maintain a map of avalanche hazard zones that are within areas of existing or potential development. The map prepared shall identify areas of low hazard (minor property damage potential but no safety risk) and high hazard areas (potential safety risk).	AVL-1.1 AVL-1.4 AVL-1.6 AVL-1.7	Planning			■



Table 7-3. Avalanche Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
2.0 Information on avalanche hazard zones (from existing information or updated information from Implementation Measure 1.0) shall be consulted in the review of development proposals to restrict development of inhabitable structures from these areas.	AVL-1.1 AVL-1.4	Planning			■
3.0 The County shall maintain a current copy of a fire hazard severity map based on inputs from the CDF and local fire district within the County.	AVL-1.2 AVL-1.3	Office of Emergency Services			■



Table 7-3. Avalanche Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
4.0 Access from County roadways to areas of known or potential avalanche hazards shall be closed and identified as hazard zones, if feasible, to preclude access into these areas during periods of high danger. For areas outside of County jurisdiction, the County shall coordinate with other government agencies to ensure the public safety.	AVL-1.3	Public Works Office of Emergency Services Sheriff			■
5.0 The County shall work with landowners and other public agencies to provide protection to existing inhabited structures that are located within identified avalanche hazard zones. These efforts may include, but not be limited to early warning and evacuation assistance.	AVL-1.4	Public Works Office of Emergency Services Sheriff			■



Table 7-3. Avalanche Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
6.0 The County will assist residents in Aspendell, South Fork, and Sage Flat obtain assistance from the Federal Emergency Management Agency (FEMA) and other agencies to add direct protection (reinforcement for avalanche loads) to houses exposed to avalanche hazards.	AVL-1.4	Public Works			■
7.0 The County shall implement the SEMS plan and work with other agencies to provide necessary emergency and rescue services in the event of an avalanche.	AVL-1.4 AVL-1.5 AVL-1.6	Office of Emergency Services			■
8.0 Volunteer corps, such as an Avalanche Watch Program, should be organized in areas of known avalanche hazards. The County shall encourage sponsor search and rescue training for local residents in hazard areas.	AVL-1.4 AVL-1.5 AVL-1.6	Office of Emergency Services			■



Table 7-3. Avalanche Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
9.0 Encourage the transfer of parcels within avalanche hazard zones with other available lands for future development.	AVL-1.1 AVL-1.4 AVL-1.7	Planning			■



7.4 Wildfire Hazard

7.4.1 Definition

In using this element and the goals, policies, and implementation measures that address wildfire hazard issues, the following definition will apply.

Wildfires. Typically a raging fire that travels and spreads rapidly.

7.4.2 Goals & Policies

GOAL WF-1

Prevent wildfires and provide public safety from wildfire hazards.

Policy WF-1.1 Fire Protection Agencies

Support expansion of fire protection agencies and volunteer fire departments, and continue to cooperate with federal, state, local agencies and private landowners to provide greater fire protection for the County.

Policy WF-1.2 Limitations in Fire Hazard Zones

Discourage development within high fire hazard severity zones.

Policy WF-1.3 Fuel Modification

Require fuel modification for structures within fire hazard zones.

Policy WF-1.4 Public Education/Notification **of Increased Risks**

Educate the public about the **increased** hazards of wildfires ~~and due to changing climatic conditions~~, **highlighting strategies such as fuel modification and fire breaks, which ~~methods to~~ reduce the potential for wildfires to occur.**

Policy WF-1.5 Emergency Access

All County public roads shall be developed and maintained at adequate standards to provide safe circulation for emergency equipment.

Policy WF-1.6 **State Responsibility Areas**

The County shall encourage incorporation of private lands within State Responsibility Areas into fire districts and amending the classification of these lands to Local Responsibility Area.



7.4.3 Wildfire Hazard Implementation Measures

Table 7-4, Wildfire Hazard Implementation Measures, identifies the implementation measures the County should take to implement the goals and policies of this General Plan. The implementation program lists each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.

Table 7-4. Wildfire Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
1.0 The County Fire Marshall shall continue to coordinate with fire agencies, and work to establish additional fire protection organizations, <u>with a principle goal of educating the public about the dangers of, and preventive strategies for, wildfires.</u>	WF-1.1	Fire Marshall			■
2.0 The County shall work with local fire districts and volunteer fire departments to develop community fire plans to identify the desired level of service and methods to obtain such services, <u>as well as educating the public on preventive measures.</u>	WF-1.1	Office of Emergency Services Fire Marshall Inyo LAFCO			■



Table 7-4. Wildfire Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
3.0 The County shall maintain a current copy of a fire hazard severity map based on inputs from the Calfire and local fire districts within the County.	WF-1.2 WF-1.3	Fire Marshall CDF			■
4.0 During review of development proposals, the County shall require appropriate building setbacks and fuel modification requirements within fire hazard zones, as appropriate to the specific hazard zones.	WF-1.2 WF-1.3	Fire Marshall Planning			■



Table 7-4. Wildfire Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
5.0 The County, <u>as well as local fire protection district staff</u> , shall review all development plans and subdivision maps to provide recommendations for fire prevention and protection, including but not limited to safe circulation, ingress and egress, sprinkler requirements, <u>and</u> water pressure requirements, <u>and</u> <u>wildfire protection measures for those areas adjacent to open space</u> .	WF-1.2 WF-1.5	Fire Marshall CDF Local Fire Protection Agencies			■
6.0 The County shall develop information to provide guidance on proper fuel modification for distribution to the public.	WF-1.4	Fire Marshall CDF Local Fire Protection Agencies			■



7.5 GEOLOGIC & SEISMIC HAZARDS

7.5.1 Definitions

In using this element and the goals, policies, and implementation measures that address geologic and seismic hazard issues, the following definitions will apply.

Alquist-Priolo Fault Zone. The Alquist-Priolo Earthquake Fault Zoning Act, passed in 1972, requires the State Geologist to identify zones of special study around active faults.

Fault. A fault is a fracture in the Earth's crust that is accompanied by displacement between the two sides of the fault. An active fault is defined as a fault that has moved in the last 10,000-12,000 years. A potentially active fault is one that has been active in the past 1.6 million years.

Groundshaking. Movements on any of the active faults described above could cause groundshaking. The intensity and duration of the groundshaking increase along with the magnitude of an earthquake and proximity to the earthquake epicenter. The intensity of groundshaking and ground movement are frequently amplified in areas with horizontal layers of unconsolidated alluvium, such as those found in Inyo County valleys.

Liquefaction. During seismic events, liquefaction of fine-grained, unconsolidated sediments can be a serious hazard to structures built on these surfaces. Liquefaction frequently occurs in deposits where sediments are laid down in a quiet or calm water environment, such as historic lakebeds or inland sea areas. These deposits have a loose structure because undrained water remains between the pores of the sediments (the spaces between soil grains, usually filled with air or water), and groundshaking from earthquakes may trigger rapid consolidation of the soils, resulting in a complete loss of strength.

Magnitude. Earthquake magnitude is measured by the Richter scale, indicated as a series of Arabic numbers with no theoretical maximum magnitude. The greater the energy released from the fault rupture, the higher the magnitude of the earthquake. Magnitude increases logarithmically in the Richter scale; thus, an earthquake of magnitude 7.0 is thirty times stronger than one of magnitude 6.0. Earthquake energy is most intense at the point of fault slippage, which is called the epicenter because the energy radiates from that point in a circular wave pattern; the farther an area is from an earthquake's epicenter, the less likely it is that groundshaking will occur.



7.5.2 Goals & Policies

GOAL GEO-1	Minimize exposure to hazards and structural damage from geologic and seismic conditions.
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Policy GEO-1.1 Development Hazard Constraints

~~Unless fully mitigated, R~~ restrict development of inhabitable structures in areas that are subject to severe geologic hazards, such as Alquist-Priolo Special Studies Zone, liquefaction zones, landslide areas, and seismically induced unstable soils.

Policy GEO-1.2 Seismic Retrofitting

Support and encourage seismic upgrades to older buildings that may be structurally deficient.

Policy GEO-1.3 Disaster Preparedness

Promote and provide education to prepare inhabitants of the County for disaster events.

Policy GEO-1.4 Design Measures

Require that new development of habitable structures that are located within potential seismic hazard zones provide appropriate engineering design strategies to comply with appropriate building standards.

~~**Policy GEO-1.5 Slope Constraints**~~

~~Restrict development on steep slopes (defined as slopes greater than 30%).~~

7.5.3 Implementation Measures

Table 7-5, Geologic and Seismic Hazard Implementation Measures, identifies the implementation measures that the County should take to implement the goals and policies of this General Plan. The implementation program lists the each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.



Table 7-5. Geologic and Seismic Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012- 2015	2015- 2020	On- going
1.0 The County shall work with the state to prepare maps of active faults in the County and designate Alquist-Priolo Special Study Zones as appropriate.	GEO-1.1	Planning			■
2.0 The County shall maintain a map showing known information on seismic hazards.	GEO-1.1	Planning			■
3.0 Structures in the Alquist-Priolo Special Studies Zones shall be set back 50 feet from each side of a mapped active fault or fault zone except as provided in state statute. The setback may be reduced based upon a geologic fault report that includes fault trenching.	GEO-1.1	Planning			■



Table 7-5. Geologic and Seismic Hazard Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012- 2015	2015- 2020	On- going
<p>The County shall not site critical facilities in areas within Alquist-Priolo Special Studies Zones, in areas subject to liquefaction, in areas with a high landslide risk, or on seismically unstable soils <u>unless engineering can mitigate potential risks</u>. A geologic/seismic hazards geotechnical engineering study shall be performed to identify potential impacts and engineering recommendations prior to siting or site acquisition. Critical facilities include:</p>					
<p>4.0</p> <ul style="list-style-type: none"> ▪ schools; ▪ hospitals; ▪ day-care and senior citizen centers; ▪ hazardous industrial facilities; ▪ government operations/communications centers; ▪ police and fire stations; ▪ assembly rooms with an occupant load of 250 or more persons; <u>and</u> ▪ <u>hotels and apartment houses, 2 or more stories with more than 10 units.</u> 	GEO-1.1	Inyo County			■
<p>5.0</p> <p>The County shall work with private developers to support the seismic upgrades to existing facilities.</p>	GEO-1.2	Building and Safety			■



Table 7-5. Geologic and Seismic Hazard Implementation Measures

	Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
				2012- 2015	2015- 2020	On- going
6.0	The County shall develop and adopt an effective program to inventory and seismically upgrade identified hazardous structures within the County. The program shall be in compliance with Senate Bill 547, which requires local jurisdictions to develop a program that reduces the hazard of structural damage in existing unreinforced masonry buildings during seismic events. The program shall include inventorying pre-1934 unreinforced masonry buildings within the County and developing a mitigation program that corrects the structural hazards identified with the inventoried buildings.	GEO-1.2	Building and Safety	■		
7.0	The County shall provide informational materials that are available to the public to promote disaster preparedness.	GEO-1.3	Office of Emergency Services			■
8.0	Ensure that new development meets the current seismic safety standards in accordance with the Uniform Building Code for the appropriate Seismic Hazard Zone. {Seismic Safety Element Modified Policy 6, Modified Policy 9}	GEO-1.4	Building and Safety			■
9.0	The County shall revise its Zoning Ordinance to set limits on the maximum slope and maximum average slope that can be built on.	GEO-1.5	Planning	□		



7.6 NOISE

Certain areas of the County can experience noise levels that can be a concern to local residents and visitors. Potential noise areas include areas adjacent to highways and roadways that experience high traffic volumes, near large mining or industrial facilities, near local airport facilities, and areas exposed to overflight by military aircraft.

Noise effects may differ depending upon who is exposed to the noise. Some sensitive receptors, such as residential areas, hospitals, convalescent homes and facilities, schools, and other similar uses are affected to a greater degree by noise impacts. Regardless of the source, noise can be a nuisance effect that can adversely impact humans and wildlife resources.

7.6.1 Definitions

In using this element and the goals, policies, and implementation measures that address noise issues, the following definitions will apply.

Ambient Noise. The total noise associated with a given environment and usually comprising sounds from many sources both near and far.

A-weighted decibel (dBA). The A-weighted decibel is a unit of measurement for noise having a logarithmic scale and measured using the A-weighted sensory network on the noise-measuring device. An increase or decrease of ten decibels corresponds to a ten-fold increase or decrease in sound energy. A doubling or halving of sound energy corresponds to a 3 dBA increase or decrease.

Day-Night Average Sound Level (Ldn). The term “Ldn” refers to the average sound exposure over a 24-hour period. Ldn values are calculated from hourly Leq values, with the Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) increased by 10 dB to reflect their greater disturbance potential.

Mobile/Stationary Noise Sources. Mobile noise sources are moving objects, such as vehicles on a roadway or aircraft. Stationary noise sources are fixed locations, such as an industrial use.

Noise Sensitive Land Uses (Receptors). Noise sensitive land uses (receptors) are defined to include residential areas, hospitals, convalescent homes and extended care facilities, schools, libraries, day-care centers, and other similar land uses as determined by the County.



Table 7-6. Future Traffic Noise Levels Along Inyo County Roadways (2020)

Roadway/Segment	Daily Traffic Volume	% Truck Traffic	Ldn at 100 feet	Distance (feet) to 70 Ldn Contour ^a	Distance (feet) to 65 Ldn Contour ^a	Distance (feet) to 60 Ldn Contour ^a
U.S. 395						
Bishop	22,430	8%	73	158	341	736
Big Pine	7,850	10%	69	86	185	398
Independence	8,573	11%	69	86	185	398
Lone Pine	8,570	11%	69	86	185	398
Olancha	8,140	11%	69	86	185	398

^a Measured from the roadway centerline.

7.6.2 Goals & Policies

GOAL NOI-1

Prevent incompatible land uses, by reason of excessive noise levels, from occurring in the future. This includes protecting sensitive land uses from exposure to excessive noise and to protect the economic base of County by preventing the encroachment of incompatible land uses within areas affected by existing or planned noise-producing uses.

Policy NOI-1.1 Acceptable Noise Limits

The County shall utilize the noise levels shown in Table 7-6-2 for evaluating project compatibility related to noise.

Policy NOI-1.2 Exposure to Existing Noise from Stationary Sources

The County shall not allow new development within areas where existing noise levels currently exceed County noise standards (as shown in Table 7-6-2), unless mitigation measures would reduce impacts to future occupants.

Policy NOI-1.3 Limit Increases in Noise Levels from Stationary Sources

Require that new development not increase the ambient exterior noise level (measured at the property line) above established County noise standards (as shown in Table 7-6-2), unless mitigation measures are included to ~~reduce- mitigate~~ impacts, ~~to below County noise standards.~~



Table 7-7. Maximum Allowable Recommended Ambient Noise Exposure by Land Use (County Noise GuidelinesStandards)

Land Use Type	Noise Level (Ldn)						
	0 – 55	56 – 60	61 – 65	66 – 70	71 – 75	75 – 80	> 81
Residential			Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Hotels, Motels			Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Schools, Libraries, Churches, Hospitals, Extended Care Facilities			Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Sports Arenas, Outdoor Spectator Sports		Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Playgrounds, Neighborhood Parks					Unacceptable	Unacceptable	Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries					Conditionally Acceptable	Conditionally Acceptable	Unacceptable
Office Buildings, Business Commercial and Professional				Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Mining, Industrial, Manufacturing, Utilities, Agriculture					Conditionally Acceptable	Conditionally Acceptable	Unacceptable

	<i>Normally Acceptable. Specified land use is satisfactory, based on the assumption that any buildings involved are of normal, conventional construction, without any special noise insulation requirements.</i>
	<i>Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design.</i>
	<i>Unacceptable. New construction or development should not generally be undertaken.</i>

If existing noise standards are currently exceeded, a proposed project shall not incrementally increase noise levels by more than 3 dBA.

Policy NOI-1.4 Transportation-Related Noise

The development of new noise sensitive land uses adjacent to existing or planned transportation facilities, or development of new transportation facilities adjacent to existing or planned sensitive land uses, shall require a noise impact analysis study in areas where current or future exterior noise levels from transportation sources exceeds 65-dB Ldn. This study shall include recommendations and evidence to establish mitigation that will reduce noise exposure to acceptable levels. Areas subject to this criterion are defined as follows:

- **Roadway Noise.** For major roadways in the County, the future noise levels estimated on Table 7-6-1 shall be used to determine the applicability of this policy.
- **Aircraft Noise.** Existing noise contour information shall be used when available. For airports that do not have noise contour information, uses within ¼ mile shall be evaluated.



Policy NOI-1.5 Implementation of Mitigation Measures

Require that proponents of new projects provide or fund the implementation of noise-reducing mitigation measures to reduce noise to required levels.

Policy NOI-1.6 Indoor Noise Levels

In the event that acceptable outdoor noise levels cannot be achieved by appropriate noise mitigation measures, indoor noise levels for residential uses shall be designed to not exceed 45-dB Ldn.

Policy NOI-1.7 Noise Controls During Construction

Contractors will be required to implement noise-reducing mitigation measures during construction when residential uses or other sensitive receptors are located within 500 feet.

Policy NOI-1.8 Coordination with Agencies

The County will encourage other government agencies to implement noise-reducing measures when impacts to receptors within the County’s jurisdiction occur.

GOAL NOI-2	Preserve and maintain a quiet rural environmental character.
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Policy NOI-2.1 Rural Roadways

Maintaining two-lane County roadways is encouraged where feasible. Widening and expansion of County roadway facilities is discouraged unless required to provide necessary capacity.

Policy NOI-2.2 Limit Structural Attenuation

Discourage the use of sound walls along roadway facilities. Non-structural mitigation is preferred, such as soft berms, provision of landscaping, buffer distances, and elevated or depressed roadways or structures.

Policy NOI-2.3 Buffers

Provide buffers between sensitive noise receptors and highway facilities that currently carry, or have the potential to carry high vehicle loads.

7.6.3 Implementation Measures

Table 7-6-3, Noise Implementation Measures, identifies the implementation measures the County should take to implement the goals and policies of this General Plan. The implementation program lists each specific implementation measure, a reference to which General Plan policy it is implementing, who is responsible to implement the program, and the timeframe for implementation.



Table 7-8. Noise Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
1.0 The County shall prepare an updated Noise Ordinance as part of the Zoning Code update to reflect the goals and policies in this General Plan.	AH	Planning	■		
1.0 During initial project review, the County shall request the incorporation of noise reduction features to mitigate anticipated noise impacts.	AH <u>NOI-1.5</u>	Planning			■
2.0 The County shall require project-specific noise studies for projects where existing or project-related noise levels may exceed County noise standards.	NOI-1.1 NOI-1.2 NOI-1.3 NOI-1.4 NOI-1.5 NOI-1.6	Planning			■
3.0 As part of future master planning activities for all public airports, the County shall prepare an updated map reflecting current and future airport noise contours.	NOI-1.4	Public Works			■



Table 7-8. Noise Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
5.0 Construction activities within 500 feet of existing noise sensitive uses shall be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Saturday. No construction shall occur on Sunday or federal holidays without a special permit from the County for unusual circumstances.	NOI-1.7	Environmental Health Building and Safety Public Works			■
6.0 The County shall establish noise guidelines for construction activities.	NOI-1.7	Environmental Health Building and Safety Public Works			■
4.0 Request Caltrans to perform a noise mitigation study as part of any modification of state highways that pass through communities in the County.	NOI-1.8	Environmental Health Building and Safety Public Works			■
5.0 The County will work with Caltrans to support narrower roadway cross-sections and soft attenuation techniques (such as buffers and landscaping) along state highways.	NOI-1.8 NOI-2.3	Environmental Health Building and Safety Public Works			■



Table 7-8. Noise Implementation Measures

Implementation Measure	Implements What Policy	Who is Responsible	Timeframe		
			2012-2015	2015-2020	On-going
6.0 The County will work in coordination with other government agencies, including the military, to reduce noise impacts from out-of-county noise sources.	NOI-1.8	Environmental Health Building and Safety Public Works			■
7.0 For County roads, the County shall support narrower roadway cross-sections and soft attenuation techniques (such as buffers and landscaping) along roadways.	NOI-2.1 NOI-2.3	Public Works			■
8.0 During project review, the County shall ensure that structural mitigation along highways and roadways, such as sound walls, is minimized. In areas where sound walls are required, the walls shall be designed and landscaped to reduce the appearance and bulk of the walls.	NOI-2.2	Environmental Health Public Works			■