

— Freeway
 — Major Road
 — Railway
 - - - Town Limits

Flood Hazard Zones
 ■ 1% Annual Chance Flood Hazard (100-year)
 ■ 0.2% Annual Chance Flood Hazard (500-year)
 ■ Regulatory Floodway



Figure PHS-3: Flood Hazard Zones



0 0.25 0.5 1 Miles

Data Source: FEMA's National Flood Hazard Layer; July 15, 2014



PHS-3.5 Floodplain Combining District. The Town shall continue to use the floodplain combining district of its Zoning Ordinance to specify the appropriate development regulations and to define the development review process for proposals within the floodways and within the 100-year flood zone in order to remain consistent with Muni Code Title 9: Flood Damage, Flood Control, and Drainage.

PHS-3.6 Appropriate Development in the Flood Hazard Areas. The Town shall use the FEMA Flood Insurance Rate maps as the defining minimum acceptable level of risk. Structural development within a Special Flood Hazard Area (SFHA) would only be permitted if the property owner/developer demonstrated with substantial evidence that the areas proposed for buildings do not encroach into the floodplain, that there are no practicable alternatives, and that effective mitigation measures have been incorporated to minimize potential public safety risks and to not increase the size of the SFHA.

*For Policies PHS-3.5-3.6 see
Implementation Program PHS-7:
FEMA 100-Year Flood Map*

PHS-3.7 Developer Improvement Costs. The Town shall require property owners/developers who benefit from the installation of drainage facilities that handle stormwater runoff from new development to install and/or pay their fair share cost of these improvements and maintenance of such improvements as the Town deems appropriate.

PHS-3.8 Dam Failure. The Town shall continue to coordinate with the County to maintain current Dam Inundation Maps and Dam Failure Plans.

Fire Hazards

Windsor is surrounded by wildland, agriculture, and open space that contributes to its aesthetic quality and small-town charm. However, some of these natural resources also make the town vulnerable to fires. The combination of dry summers, the growing effects of climate change, moderate topography in the northeastern edge, grasslands, and woodlands provide highly flammable fuel that is conducive to wildfires. As urban development extends towards the foothills and into areas with highly flammable vegetation, the likelihood of accidental wildland fires becomes more prominent. Wildland fires are difficult to suppress and can spread rapidly, requiring property owners and the public to be aware and ready to implement preventive measures in areas of high risk. Within town limits there are no areas with a high or very high fire severity rating, but adjacent county land to the northeast and southwest is susceptible to wildfires. The policies in this section provide guidance for preventative measures and practices to avoid wildfires and support ongoing coordination between the Windsor Fire Protection District and Cal Fire.

The unprecedented Nuns and Tubbs fire events of October 2017 will likely lead to a re-examination by State and local agencies of current fire protection and prevention practices in wildland urban interface areas. As new measures and practices are identified and developed, the Town shall implement them through updates to this General Plan and the Town's Local Hazard Mitigation Plan as needed and as appropriate, and through the review of new development proposals.

Goal PHS-4: Fire Hazards

Minimize the risks to lives and properties due to wildland fire hazards through education and an understanding of the natural environment.

Policies

PHS-4.1 Fire Protection Design for New Development. New development adjacent to heavily grassed and semi-arid hillsides shall be designed to minimize fire hazards to life and property, including the use of fire preventive site design (i.e., defensible space), landscaping and building materials, and fire suppression techniques.

PHS-4.2 County Fire Hazard Reduction Programs. In areas beyond the town limits designated as a high fire hazard by Cal Fire, the Town shall encourage the County to undertake or continue programs to minimize fuel buildup around residences and other occupied structures. Such programs should include the establishment and maintenance of a fuel break between fire risk areas and urbanized areas.

PHS-4.3 Fire Suppression Requirements. The Town shall require additional mitigation for development projects unable to satisfy minimum fire flow requirements.

PHS-4.4 Fire Interjurisdictional Coordination. The Town shall encourage the County to incorporate any measures provided by the fire protection service providers as conditions of project approval for projects in unincorporated areas located within a moderate or high fire hazard area along the wildland/urban interface.



- PHS-4.5 State Responsibility Lands.** The Town shall generally avoid inclusion of lands within the State Responsibility Area in its Sphere of Influence, since annexation of these areas requires the Fire District to assume responsibility for wildland fire protection.
- PHS-4.6 Project Review for Proposals in Fire Hazard Areas.** The Town shall require that fire hazards be identified during project review by comparing the project site against the fire hazard maps prepared by Cal Fire. Project sites that lie within the moderate to high hazard areas shall be subject to design modifications and conditions to minimize potential exposure to wildland fire.
- PHS-4.7 Weed Abatement.** The Town shall continue to support the Fire District's efforts to maintain and implement a Weed Abatement program to prevent fire hazards created by vegetative growth.
- PHS-4.8 Public Warning System.** Explore implementation of a public siren and broadcasting system, to be used in combination with reverse calling and other methods as a means of alerting residents of imminent threats.
- PHS-4.9 Priority Undergrounding.** Prioritize undergrounding of utilities along emergency access and evacuation routes to make them more reliable and to minimize hazards from fallen power lines.

Hazardous Materials

Protection from hazardous materials is essential to providing a safe environment for residents and visitors. Hazardous materials include all toxic flammable, combustible, corrosive, poisonous, and radioactive substances, which possess the potential to bring harm to the public or the environment. The improper use and disposal of hazardous materials can contaminate soil and groundwater resources and compromise the health and quality of life of residents. Accidents involving the transportation of hazardous materials can also cause explosions or spills that endanger the lives and property of nearby residents and businesses. The policies in this section establish strategies to minimize exposure to hazardous materials, including the implementation of best practices for the routine use, storage, transport, and disposal of hazardous materials.

Goal PHS 5: Hazardous Materials

Minimize potential health effects from the use, storage, transportation and disposal of hazardous materials and waste.

Policies

- PHS-5.1 Proper Storage and Disposal of Hazardous Materials.** The Town shall require proper storage and disposal of hazardous materials to prevent leakage, potential explosions, fires, or the escape of harmful gases, and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal.

- PHS-5.2 Setbacks and Buffers.** The Town shall review applications for commercial and industrial uses that involve the use, storage, transport, or disposal of hazardous materials to determine the need for buffer zones or setbacks to minimize risks to homes, schools, community centers, medical facilities, and other sensitive uses.
- PHS-5.3 Hazardous Waste Disposal in Sphere of Influence.** Due to the sensitivity of the Windsor Sphere of Influence area to seismic and flood hazards, and the reliance on groundwater for the Town's potable water supply, the Town shall not permit hazardous waste disposal facilities within the Sphere of Influence.
- PHS-5.4 Hazardous Waste Disposal.** The Town shall encourage the community to dispose of toxic substances at the Central Disposal Site in Petaluma or through one of the Community Toxic Collection days.
- PHS-5.5 Sensitive Uses.** The Town shall require new developments that use or store hazardous materials and that are on sites in close proximity to creeks to include mitigation measures to prevent contamination of the creeks in the event of an accident or spill.
- PHS-5.6 PG&E Gas Line Coordination.** The Town shall coordinate with Pacific Gas and Electric (PG&E) to maintain public awareness and public safety in areas that are in proximity to high-pressure gas lines, while remaining sensitive to the needs of the community.
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- For Policy PHS-5.7 see
Implementation Program PHS-13:
Truck Route Evaluation*
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- PHS-5.7 Maintain Truck Routes.** The Town shall maintain designated truck routes for the transportation of hazardous materials through the town to limit potential impacts to public health and safety.
- PHS-5.8 Rail Transport of Hazardous Materials.** The Town shall coordinate with Sonoma Marin Area Rail Transit Authority (SMART), North Coast Rail Authority, and Northwestern Pacific Railroad Company on the notification of hazardous materials or waste being transported through town and the potential impacts that these materials or wastes pose to the community.
- PHS-5.9 Onsite Contamination Constraints.** In future land use decisions, the Town shall consider the constraints imposed by the potential for site contamination by present or past activities that used, stored, or disposed of hazardous materials or wastes. The Town shall restrict any use that could allow human exposure to such contamination or shall require remediation and/or mitigation efforts to reduce the health risks to acceptable levels prior to issuance of a building permit.
- PHS-5.10 Hazardous Waste Remediation Coordination.** The Town shall require and encourage sites that are found to be contaminated with hazardous materials or wastes to cooperate with the Regional Water Quality Control Board, the State Department of Toxic Substances Control, and other appropriate agencies in the cost-efficient and expeditious remediation of the sites for the intended uses shown in the Town's Land Use Diagram. The Town shall continue to monitor remediation progress on sites contaminated with hazardous materials or wastes.



PHS-5.11 Contaminated Sites. The Town shall do the following for known contaminated sites and for those that are discovered:

- a. Support programs and funding determination of sites contaminated with hazardous materials and for site cleanup.
- b. Cooperate with Federal, State and Local agencies on their cleanup of sites contaminated with hazardous materials.

PHS-5.12 Underground Storage Tanks. The Town shall continue to encourage and support the local Fire Department, the Sonoma County Environmental Health Department under the CUPA program, and the Regional Water Quality Control Board to administer and enforce hazardous material regulations for the storage of hazardous liquids in underground storage tanks.

PHS-5.13 Hazardous Waste Management Planning. The Town shall continue to maintain the appropriate measures and policies in the Sonoma County Countywide Integrated Waste Management Plan: Household Hazardous Waste Element that are directly related to the Town.

PHS-5.14 Hazardous Materials Education. The Town shall educate the public on safety precautions and measures when handling and disposing of hazardous materials, including future modifications to local and regional hazardous material management.

PHS-5.15 Emergency Plans for Businesses. The Town shall require businesses that use hazardous materials on the premises to prepare and implement a plan in the event of an emergency. The Plan shall identify an individual or individuals who will serve as the emergency coordinator(s).

PHS-5.16 Legislative Support. The Town shall support legislation that would further reduce public risks associated with hazardous substances, reduce hazardous waste generation, aid in cleanup, or provide assistance for hazardous materials management.

*For Policy PHS-5.14 see
Implementation Program PHS-9:
Public Information on Hazardous
Materials*

Airport Safety

The Charles M. Schulz-Sonoma County Airport (STS) is located less than one-half mile south of Windsor. The airport is operated by the County of Sonoma Department of Transportation and Public Works and serves many different types of aircraft including propeller aircraft, turbine aircraft, jets, helicopters, and hot air balloons. The airport currently covers approximately 1,048 acres and features two runways that have direct flight paths over Windsor. The Airport Land Use Commission (ALUC) oversees potential development and regulation that can affect airport expansion and the compatibility with surrounding land uses. The ALUC governs the Sonoma County Airport through the Comprehensive Airport Land Use Plan (CALUP). The CALUP promotes the safety and welfare of residents near the public use airports in the county, as well as airport users. The policies in this section support compatibility with the CALUP and minimize risks associated with the daily operations of the airport.

Goal PHS-6: Airport Safety

Minimize the risks to lives and property due to operations associated with the Charles M. Schultz Airport.

Policies

PHS-6.1 Sonoma County Airport Land Use Compatibility Plan Criteria. The Town shall continue to establish noise and safety compatibility criteria in the Airport Safety (AS) overlay district consistent with the provisions of the Comprehensive Airport Land Use Plan for Sonoma County.

PHS-6.2 Development Proposal Review. The Town shall review development proposals and land uses within the "AS" overlay district for compliance with district regulations and modify or condition projects as necessary to maintain compliance.

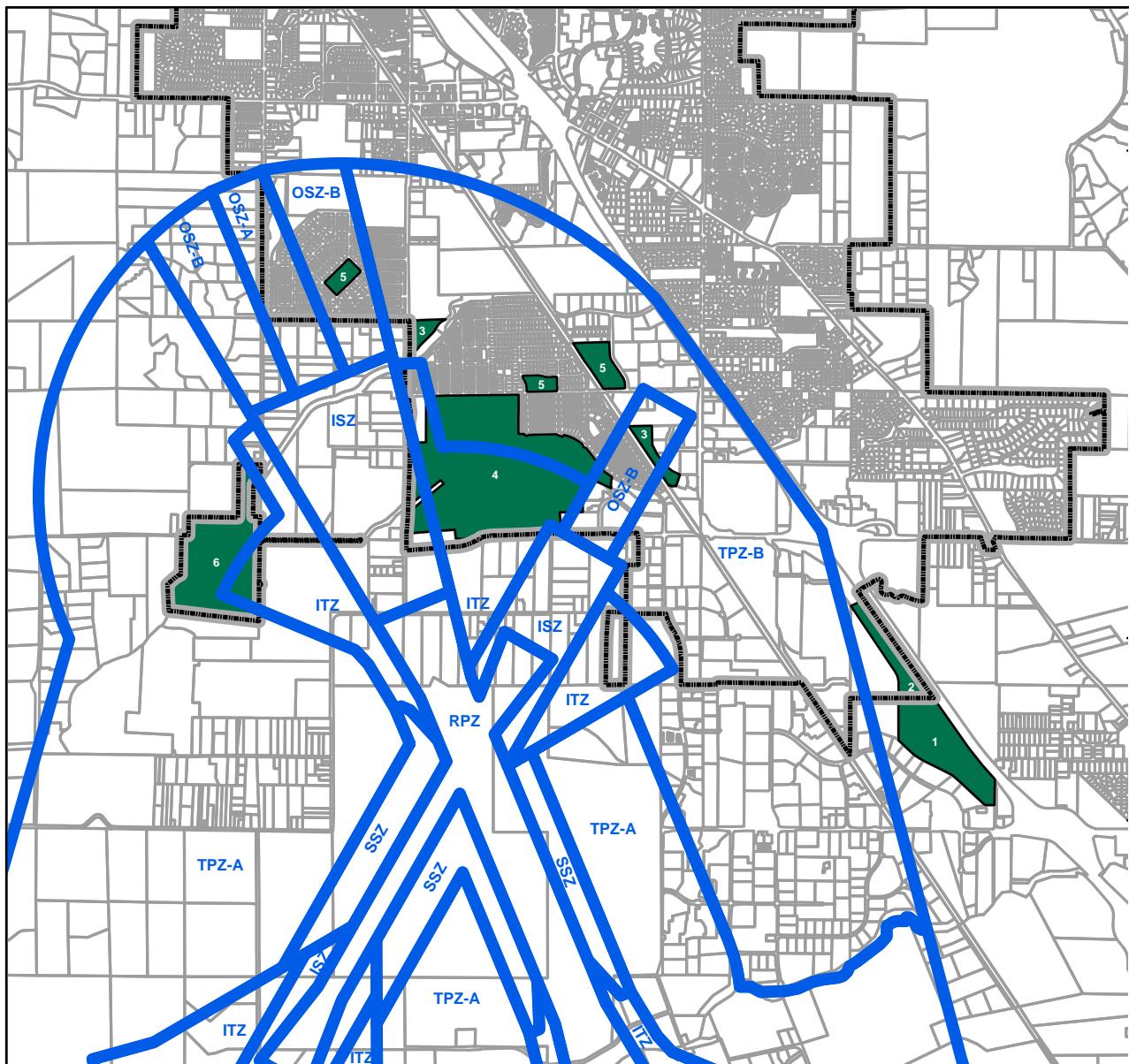
PHS-6.3 Sonoma County Airport Land Use Compatibility Plan Consistency. The Town shall strive for consistency between its policies, plans, and ordinances and the Airport Land Use Compatibility Plan.

PHS-6.4 Airport Land Use Commission Review. The Town shall ensure that all applicable plans, ordinances, and development applications are submitted to the Sonoma County Airport Land Use Commission (ALUC) for review, if required by State law.

PHS-6.5 Airport Open Space Requirements. Maintain the open space areas shown on Figure PHS-4 to satisfy the open land area requirements of the California Airport Land Use Planning Handbook (Caltrans Aeronautics Division) and the Sonoma County Comprehensive Airport Land Use Plan for lands located within a designated "Traffic Pattern Zone" area.

PHS-6.6 Airport Incident Report. The Town shall monitor aviation-related incidents that impact the Town and consult with the Windsor Fire Protection District and the Charles M. Schulz-Sonoma County Airport on potential safety and emergency response impacts resulting from increased airport operations.

For Policy PHS-6.1-6.3 see
Implementation Program PHS-10:
Airport Safety Overlay Consistency



Designated Airport Open Space Areas

- 1: Vineyard
- 2: Open Space Easement
- 3: Wetlands
- 4: Golf Course
- 5: Park
- 6: Windsor Water District



Airport Safety Zones

- ITZ: Inner Turning Zone
- OSZ - A: Outer Safety Zone A
- OSZ - B: Outer Safety Zone B
- RPZ: Runway Protection Zone
- SSZ: Sideline Safety Zone
- TPZ - A: Traffic Pattern Zone A
- TPZ - B: Traffic Pattern Zone B



Town of Windsor Boundary



Parcels



Figure PHS-4: Designated Airport Open Space Areas

0 625 1,250 2,500 Feet

Creation Date: September 20, 2016

Revision Date: Septermber 23, 2016



Source: Esri, Sonoma County GIS, and Geographic Technologies Group

SB 379 requires the General Plan address climate adaptation and resiliency strategies based on a vulnerability assessment that identifies the risks that climate change poses to the local government. This requirement can also be met through a Local Hazard Mitigation Plan or other climate adaptation plan. The Town has prepared a Local Hazard Mitigation Plan (LHMP) that contains a climate vulnerability assessment and strategies to address climate change adaptation. The LHMP is incorporated in the Public Health and Safety Element by reference and fulfills the requirements of SB 379.

For Policy M-7.2 see Implementation Program PHS-11: Incorporating Climate Change Adaptation

For Policy PHS-7.5 see Implementation Program PHS-1: Local Hazard Mitigation Plan

Climate Change Adaptation

Global climate change refers to changes in the average climatic conditions on earth as a whole, including changes in temperature, wind patterns, precipitation, and storm severity. Potential climate change impacts in Windsor include: increased average annual temperatures, increased drought caused by decreased rainfall, increased risk of wildfires, and decreased water availability. The Town has actively participated in and supported the effort to reduce greenhouse gas emissions. The policies in this section demonstrate the Town's dedication to respond and adapt to climate change. Policies in the Environmental Resources Element address the reduction of greenhouse gas emissions, which are the leading cause of climate change.

Goal PHS-7

Improve the sustainability and resiliency of the Town through continued efforts to adapt to climate change and increased flooding and drought conditions.

Policies

- PHS-7.1 Climate Adaption Resiliency.** The Town shall strive to create a strong resilient community that can withstand potential man-made and natural disasters, economic instability, and the lack of access to resources caused by climate change.
- PHS-7.2 Reduce Impacts of Climate Change.** The Town shall support plans, standards, regulation, incentives, and investments to reduce the impacts of climate change on those populations most vulnerable to the impacts of climate change.
- PHS-7.3 Climate Change Education.** The Town shall incorporate climate change effects and impacts into public emergency awareness and preparedness programs.
- PHS-7.4 Heat Waves.** The Town shall coordinate with the business community, County, and State health and safety agencies to publicize programs and standards for preventing heat-related illness during heat waves.
- PHS-7.5 Resiliency to Drought.** The Town shall actively engage in resilient planning methods and practices to address and adapt to the potential impacts from severe droughts caused by climate change.
- PHS-7.6 Groundwater Sustainability.** The Town shall operate its wells in compliance with the Sustainable Groundwater Management Act.
- PHS-7.7 Alternative Groundwater Sources.** The Town shall determine and review alternative groundwater sources that can adequately supply the town with water during an ongoing drought.
- PHS-7.8 Preserve Groundwater Recharge Areas.** The Town shall strive to ensure that important groundwater recharge areas are maintained as open space.



PHS-7.9 Groundwater Recharge Projects. The Town shall encourage the development of groundwater recharge projects of all scales to increase groundwater supplies.

PHS-7.10 Rainwater Harvesting. The Town shall encourage rainwater harvesting design options in new development and retrofitting in existing development.

PHS-7.11 Water Retention During Droughts. The Town shall encourage the use of low impact development (LID) techniques for both public and private sites to aid in groundwater retention and infiltration.

Noise

Exposure to excessive noise can impact health and quality of life, potentially causing hearing loss, stress, hypertension, sleep disturbance, and fatigue. Roadway traffic is the most significant source of noise affecting residents in Windsor. Additional noise sources include aircraft from the Sonoma County Airport, trains, and industrial and commercial operations. The policies in this section are designed to minimize exposure to excessive noise by establishing development standards and implementing practices that reduce the potential for excessive noise exposure.

Goal PHS-8: Noise

Minimize, control, and abate noise interference from indoor and outdoor noise sources and activities that exceed desirable sound levels.

Policies

PHS-8.1 Ambient Sound Levels for New Development. The Town shall encourage new development to maintain the current ambient sound environment as much as possible. All noise sources that cause the ambient sound levels to rise by more than 5 dBA should be required to incorporate conditions or design modifications to reduce the potential increase in the noise environment.

PHS-8.2 Exterior Noise Standards for New Development. The Town shall require new development to meet exterior noise level standards as established in the noise and land use compatibility guidelines contained in Figure PHS-4. For residential areas, these exterior noise guidelines apply to the primary usable outdoor area.

PHS-8.3 Interior Noise Threshold for New Residential. The Town shall require new residential projects to provide for an interior CNEL of 45 dB or less due to exterior noise sources. To accomplish this, all residential and other noise sensitive land uses within the 60 dB contours or greater as defined in (Figure PHS-5) should be reviewed to ensure that adequate noise attenuation has been incorporated into the design of the project.

PHS-8.4 Residential Compatibility with the Airport. The Town shall not permit residential development within the 2030 projected 60 dB noise contour of the Sonoma County Airport (Figure PHS-6).

PHS-8.5 Noise Attenuation Techniques. The Town shall encourage new development to identify alternatives to the use of sound walls to attenuate noise impacts. Other techniques that would be viewed more favorably by the Town include:

- a. Modifications to site planning such as incorporating setbacks; and
- b. Revisions to the architectural layout such as changing building orientation, providing noise attenuation for portions of outdoor yards, and construction modification (e.g., noise attenuating windows).

In the event that sound walls are the only practicable alternative, such walls shall be subject to development review to ensure that they are designed to be as aesthetically pleasing as possible, incorporating landscaping, variations in color and patterns, and/or changes in texture or building materials.

PHS-8.6 Acoustical Reports. The Town shall require that applications for development of residential or other noise-sensitive land uses in projected noise-impacted areas (greater than 55 dB CNEL) shall require an acoustical analysis, prepared at the applicant's expense. Recommendations contained in the acoustical reports shall be incorporated as conditions of any approval.

PHS-8.7 Non-Vehicular Noise. The Town shall continue to regulate non-vehicular noise sources that are not preempted by State and Federal regulations, to minimize disturbances to adjoining uses through the noise ordinance.

PHS-8.8 Caltrans Noise Attenuation Requirements. The Town should encourage Caltrans to provide sound attenuation devices that are aesthetically pleasing.

PHS-8.9 Truck Route Noise Impacts. The Town shall maintain its designated truck routes to limit the potential noise impacts to sensitive land uses.

PHS-8.10 Construction Site Noise Restrictions. The Town shall restrict construction working hours as designated in the Municipal Code, Title VII Building and Housing Section, to allow efficient construction mobilization and activities, while also protecting the noise environment of noise sensitive land uses.

PHS-8.11 SMART Quiet Zones. The Town shall encourage the designation of "quiet zones" along the SMART commuter rail corridor adjacent to land uses that are sensitive.

PHS-8.12 Airport Noise. The Town shall continue to cooperate with airport management to monitor noise impacts generated at the Sonoma County Airport and seek to reduce noise levels. The Town shall support the implementation of the policies, programs, and noise standards set forth in the Sonoma County Airport Land Use Compatibility Plan to reduce excessive noise impacts.

*For Policy PHS-8.9 see
Implementation Program PHS-13:
Truck Route Evaluation*



PHS-8.13 Flight Approach and Flight Path Agreements. The Town shall continue to support and actively monitor the adherence to and enforcement of flight approach and flight path agreements for the Sonoma County Airport.

PHS-8.14 Airport Expansion and Potential Noise. The Town shall coordinate with the Sonoma County Airport on any expansion of its facilities to limit additional potential noise impacts.

PHS-8.15 Noise Enforcement of State and Federal Standards. The Town shall continue to enforce State and Federal noise regulations regarding vehicle operation, equipment, and building insulation.

PHS-8.16 Applicable Standards in the Building Code. The Town shall continue to incorporate the most recent noise standards contained in Title 24 of the California Code of Regulations in Uniform Building Code into its own building code.

PHS-8.17 Project and Environmental Review for Noise. The Town shall consider as part of its discretionary review of proposed new development the potential for a proposed project to either generate significant new noise sources or be significantly impacted by existing noise sources as shown in Figure PHS-7. If the Town determines there may be a potential for significant noise effects related to a proposed new development, the Town shall require an acoustical study be conducted by a qualified acoustician and include appropriate mitigation measures for the proposed development based on that study.

Table PHS-4
Maximum Noise Level by Receiving Land Use

Type of Land Use	Maximum Allowable Noise Levels		
	Time Interval	Exterior Noise dB(A)	Interior Nosie dB(A)
Single- or multi- family residential	7 a.m. – 10 p.m.	55	35
	10 p.m. to 7 a.m.	50	45
Commercial	7 a.m. – 10 p.m.	65	50
	10 p.m. to 7 a.m.	55	
Industrial or manufacturing	Any time	70	55
Public parks, public open space, and Civic Center	7 a.m. – 10 p.m.	55	N/A
	10 p.m. to 7 a.m.	50	

Notes:

1. Each of the noise limits specified above shall be reduced by 5 dBA for impulse or simple tone noises, or for consisting of speech or music. If the ambient noise level exceeds the resulting standard, the ambient noise level shall be the standard.
2. It shall be unlawful for any person within a residentially zoned area of the town to operate any noise amplifying device (e.g., bull horns, microphones, musical instruments, speakers, etc.), that exceeds a noise level of 45 dBA measured at the property line or cause loud excessive noise which disturbs the peace of the neighborhood.
3. In addition, Section 7-1-190 of the Town of Windsor Municipal Code restricts the timing of construction activity authorized by a Town permit to the hours of 7 a.m. to 7 p.m. Monday through Friday and 8 a.m. to 7 p.m. on Saturday and Sunday.