Noise Policy Framework

Draft for Public Review

February 2024

CITY OF PETALUMA
GENERAL PLAN UPDATE

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Overview

This Public Draft Policy Framework was prepared for review by the Petaluma community. The first two sections provide important context and are identical in each of the draft policy frameworks. The "Introduction" section briefly explains general plans, Petaluma's General Plan Update project, policy frameworks, project next steps, and key terminology. The "Policy Framework Foundations" section summarizes the analysis and community input that informed this policy framework.

The remaining sections are the core of this document that the City would like the community to review. The first of these sections, "Summary of Framework Approach," summarizes the overall approach to the topic addressed by this framework. Next is the main body of the framework, the "Goals, Policies, and Actions" section, which is organized into several goals. Each goal, in turn, has several related policies. And many policies have actions that implement those policies.

Introduction

General Plans

State law requires that each city "adopt a comprehensive, long-term general plan for the physical development of the county or city." This general plan must contain an "integrated, internally consistent and compatible statement of policies" that appropriately responds to local conditions and circumstances. General plans are organized into different "elements," or chapters, like conservation, housing, and land use. There is no required time interval at which jurisdictions must update their general plans, though Housing Elements must be updated every eight years.

State law stipulates that capital improvements and certain other planning policies, such as specific plans, zoning actions, development agreements, and subdivisions, must be consistent with the general plan. The general plan also includes policies that relate to a wide variety of matters under local jurisdiction, which can guide future decision-making.

Petaluma's General Plan Update

The current Petaluma General Plan was adopted in 2008 and last updated in 2012, and it accounts for a planning period through 2025. Petaluma has experienced a great deal of change since then, so the City initiated an update to the General Plan internally in 2020, and brought a consultant team on to assist with the project in 2021.

Petaluma's updated General Plan will address many topics, including: natural environment, hazard mitigation, historic preservation, land use, urban design, housing, mobility, parks, facilities, the arts, economic development, and environmental justice. To meet State deadlines, the Housing Element was completed, adopted, and certified by the State in early 2023. Concurrently with the General Plan Update, the City is also developing a Climate Action Plan, the "Blueprint for Carbon Neutrality" (Blueprint); the team has worked to align the two concurrent efforts and will continue to align greenhouse gas reduction strategies with the General Plan elements as the Blueprint moves through the adoption process.

For more information about General Plans and Petaluma's General Plan Update process, go to https://www.planpetaluma.org/.

Policy Frameworks

Purpose and Structure

Policy frameworks such as this one outline the proposed General Plan goals, policies, and implementation actions for each topic addressed by the General Plan. They were developed based on:

- The existing General Plan (https://cityofpetaluma.org/general-plan/)
- Key findings from the Existing Conditions Reports (see the "Policy Framework Foundations" section below)
- State requirements and guidance
- Related technical, policy, and programmatic resources
- Extensive community input (https://www.planpetaluma.org/getinvolved)
- The Vision, Pillars, and Guiding Principles developed based on community input (see the "Policy Framework Foundations" section below)
- Input from the General Plan Advisory Committee (GPAC) (https://www.planpetaluma.org/gpac-page)
- Input from City committees, boards, and commissions, and
- Guidance from City staff and consultants.

Topics Covered

There is a draft Policy Framework for each of the following topics[1]:

- Natural Environment
- Safety
- Flood Resilience
- Land Use & Community Character
- Transportation
- Infrastructure & Utilities
- Public Facilities
- Parks & Recreation
- Historic Resources
- Arts, Culture, and Creativity
- Economic Development
- Noise
- Health Equity and Environmental Justice
- Implementation & Governance.

There are many connections among the topics covered in different frameworks. Generally, the following topics are addressed as follows. This list includes overarching topics and subtopics, and then lists the frameworks that address this topic in brackets. This is not a comprehensive list of topics covered or of intersections among frameworks:

Climate Change

- Greenhouse gas reduction (Blueprint for Carbon Neutrality, Parks & Recreation, Transportation, Infrastructure & Utilities)
- Mode shift, active transportation, EV charging, vehicle miles traveled (VMT) (Transportation)
- Green building[2] (Land Use & Community Character, Public Facilities, Infrastructure & Utilities)
- Low impact development[3] (Natural Environment, Infrastructure & Utilities)
- Climate adaptation (Safety, Flood Resilience, Land Use & Community Character, Health Equity & Environmental Justice)
- Just transition[4] (Economic Development)

Ecosystems

- Habitats, wildlife corridors, & open space (Natural Environment, Parks & Recreation, Transportation)
- Urban forestry[5] (Parks & Recreation, Health Equity and Environmental Justice)

Petaluma River and Tributaries

- Ecology, habitats, & wildlife corridors (Natural Environment)
- Flooding (Safety, Flood Resilience)
- Adjacent land uses (Land Use & Community Character, Parks & Recreation, Historic Resources)
- Trails and transportation (Transportation)
- River Access and Enhancement Plan (Parks & Recreation, Flood Resilience)

Stormwater, Water Supply, and Wastewater

- Watershed and river protection (Natural Environment)
- Flood control (Flood Resilience, Parks & Recreation, Safety)
- Public water, water conservation, drought, & wastewater systems (Infrastructure & Utilities, Safety)

Transportation

- Mobility network[6], accessibility[7], safety, and VMT (Transportation, Parks & Recreation, Economic Development, Safety)
- Public realm[8] (Land Use & Community Character, Noise)

15-Minute Neighborhoods

- Types, locations, and characteristics (Land Use & Community Character)
- Mobility networks, design, and safety (Transportation)

Equity (in addition to the Health Equity and Environmental Justice Framework)

- Tribal collaboration[9] (Natural Environment, Historic Resources)
- Equitable transportation (Transportation)
- Park and public facilities access (Parks & Recreation, Public Facilities)
- Recreation program access (Parks & Recreation)
- Cultural equity (Arts, Culture, & Creativity)
- Economic justice[10] (Economic Development)
- Community engagement (Parks & Recreation, Implementation & Governance).

Next Steps

The Public Draft Policy Frameworks will be reviewed by the public, Petaluma committees and commissions, the GPAC, and the City Council. Community input and related direction from the City will inform the Draft General Plan, which will also be reviewed by the community before it is presented to the City Council for adoption. A Program Environmental Impact Report (EIR) will be prepared and approved along with the updated General Plan. For the most up-to-date project information and schedule, go to https://www.planpetaluma.org/.

Key Definitions

When reviewing the Policy Frameworks, keep in mind these definitions:

- **Goal**: a general statement that expresses the outcomes towards which planning efforts are directed; often a topic-specific component of the Vision
- **Policy**: a statement of intent or direction that contributes toward achieving a goal and that guides decision-making
- **Action**: a specific activity, procedure, program, or project aimed at implementing a policy.

Policy Framework Foundations

Existing Conditions Key Findings

The Existing Conditions Reports for Petaluma's General Plan Update serve as the technical analysis of diverse dimensions of the city's status as evaluated in 2021. They provide a detailed analysis of current conditions and provide a data-based foundation for policymaking. The nineteen Existing Conditions Reports as well as a summary presentation can be downloaded from the "Plan Documents" section of the project website: https://www.planpetaluma.org/documents#ecr-final.

The following key findings from Existing Conditions Reports informed the preparation of this policy framework:

- Vehicle-related Noise – The main source of noise for Petaluma is vehicle traffic along major roadways and arterial streets. The U.S. Environmental Protection Agency (EPA) and the World Health Organization (WHO) recommend maintaining environmental noises below 70 decibels A (dBA) over 24-hours (75 dBA over 8-hours) to prevent noise-induced hearing loss. Streets and venues that have the potential to reach these noise levels can exceed these noise thresholds if proper mitigation is not provided and should be identified as potential areas that can exceed acceptable levels. Roadways in Petaluma with existing noise contours of up to 75 community noise equivalent level (CNEL) dBA include the following:
    - Northern segment of Petaluma Boulevard
    - E. Washington Street
    - Northern segment of South McDowell Boulevard
    - Frates Road
    - Corona Road
    - US Highway 101
- Airport Noise – The Petaluma Municipal Airport is located adjacent to a residential area and may generate noise during the take-off, landing, and taxiing of aircraft. However, the airport sees a relatively low volume of air traffic and does not significantly impact overall noise levels in the community.
- Stationary Source Noise – Major stationary noise sources in Petaluma include industrial operations which may include mechanical equipment, loading docks, and on-site truck movements; the Petaluma Fairgrounds Speedway; concerts and special events at the Petaluma Fairgrounds; and amplified music from other various special events.
- SMART – SMART rail opened in Petaluma in 2017, and as such, was not included as a potential noise source in the 2025 General Plan but was analyzed separately through an environmental impact report completed in 2006. In March 2022, SMART Freight began providing freight rail service in addition to commuter rail service. Per statutory guidelines, the noise element shall analyze and quantify current and projected noise levels for railroad operations, including SMART railroad.

Related Vision, Pillars, and Guiding Principles

The Vision Statement, Pillars, Guiding Principles, and Supporting Concepts reflect community engagement input that occurred during the Visioning Phase of the General Plan Update in 2021. On February 17, 2022, the GPAC voted unanimously to recommend that the City Council accept these Vision materials as the guidance for the ongoing General Plan Update planning process, and the City Council accepted them on March 21, 2022.

- The Vision Statement describes the desired future conditions and characteristics of the city.
- The Pillars are the core community values.
- The Guiding Principles and Supporting Concepts provide the broad direction and pathways to achieve the vision and honor community values, with a focus on the community's specific challenges and opportunities.

The Vision Statement, Pillars, and Guiding Principles and Supporting Concepts can be downloaded from the "Plan Documents" section of the project website: https://www.planpetaluma.org/documents#gpuvision. Together, the Vision Statement, Pillars, and Guiding Principles and Supporting Concepts provide the basis for the goals, policies, and programs included in the General Plan Public Draft Policy Frameworks.

The following verbatim excerpts from the Vision Statement, Pillars, and Guiding Principles informed the preparation of this policy framework:

Vision

We relish our spirited, distinctive neighborhoods where we live, work and play.

We enjoy active, animated communities throughout our city along with an energetic historic downtown. Our friendly, beautiful, and nature-filled streets, parks, urban forest, and accessible river, bike lanes and trails, and walking paths connect people and help keep residents healthy. It is safe, easy, and enjoyable to travel across and around town and to neighboring communities with human, electric, and hybrid transport.

Guiding Principles

There are a total of sixteen Guiding Principles, each with multiple, lettered Supporting Concepts. The following Guiding Principles and Supporting Concepts informed this policy framework:

- Preserve and enhance Petaluma's natural environment and surrounding open spaces.
- Ensure the health and wellness of all residents.

Summary of Framework Approach

California Government Code Section 65302(f) requires a Noise Element to identify and evaluate current and projected noise levels for highways and freeways, primary arterials and major local streets, passenger, freight, and ground rapid transit systems, airport operations, industrial plants, and other major stationary noise sources. Additionally, the California Environmental Quality Act (CEQA) requires an analysis of noise and ground-borne vibration impacts on the environment. This framework addresses these requirements, as well as other noise- and vibration-related concerns for Petaluma to maintain appropriate levels of noise throughout the city.

Goals and policies in this framework address noise management through land use planning (Goal NOI-1), building and site planning strategies (Goal NOI-2), the management of temporary noise sources such as construction activities and special events (Goal NOI-3), and transportation (Goal NOI-4). Vibration management is also addressed in Goal NOI-5.

Goals, Policies, and Actions

Goal NOI-1: Appropriate Sound Levels

Ensure appropriate sound levels through compatible land uses, thoughtful design, and effective mitigation practices.

Policy NOI-1.1: Encourage Land Use Compatibility

Encourage the siting of new land uses in areas with compatible noise environments.

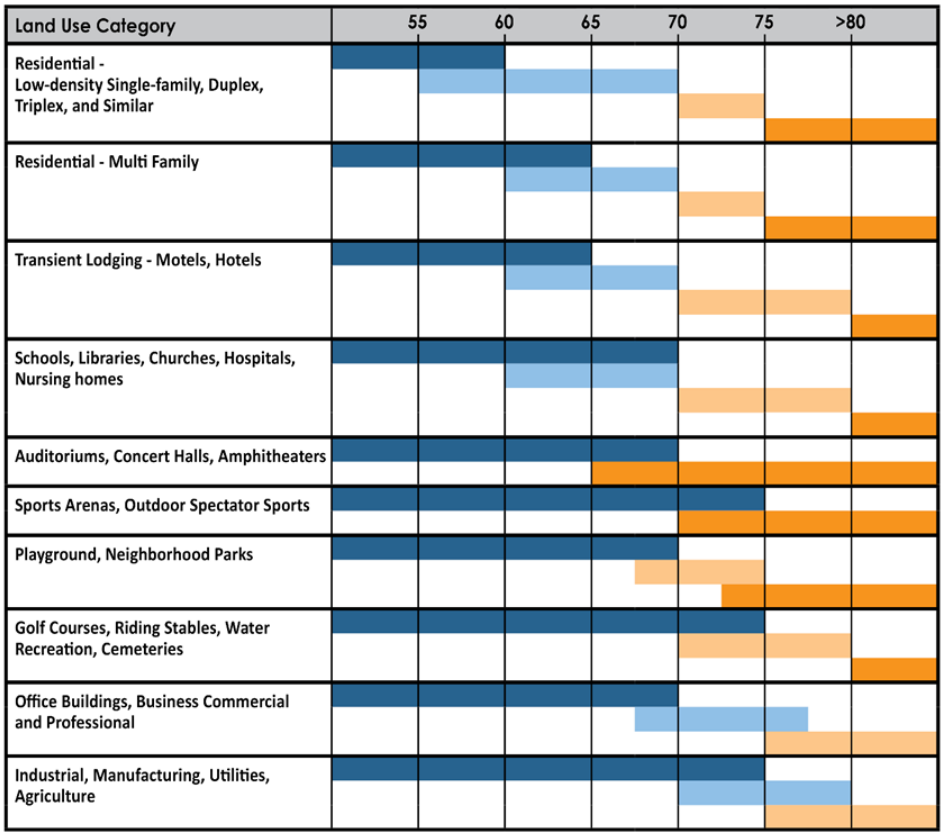
Action NOI-1.1.1: Use the guidelines and noise standards in Table N-1 to evaluate the compatibility of proposed land uses with existing noise environments when preparing, revising, or reviewing development applications.

Action NOI-1.1.2: Per the requirements of the California Building Code Title 24 noise insulation standards, habitable rooms in all new dwelling units shall be designed to be 45 dBA CNEL or less or as updated from time to time.

Action NOI-1.1.3: Per the requirements of the California Green Building Standards (CALGreen), non-residential buildings shall be designed to be 50 dBA L_{eq} (1-hour) or less in occupied areas during hours of operations or as updated from time to time.

Table N-1: Community Noise and Land Use Compatibility

Table N-1 is a guidance figure illustrating which types of land use categories are generally considered compatible with ambient decibel levels by most communities. Where ambient noise levels exceed the Normally Acceptable category, design features such as additional noise insulation may be required for new projects. At the discretion of the City, acoustical studies may be required for proposed new land use projects in areas that exceed the Normally Acceptable category.



Source: General Plan Guidelines, California Office of Planning and Research 2017.

Policy NOI-1.2: Revise Municipal Code and Implementing Zoning Ordinance

Consider revising the City's Municipal Code and Implementing Zoning Ordinance to protect citizens from harmful noise and clarify regulations in the land use code and nuisance ordinances.

Goal NOI-2: Noise Management

Use noise management techniques to reduce significant noise impacts from development.

Policy NOI-2.1: Require Acoustical Study for Applicable Projects

Require discretionary projects to conduct an acoustical study if there is potential that it will create a significant increase in periodic or operational noise or expose sensitive receptors to excessive noise.

Action NOI-2.1.1: For development review and the purposes of CEQA analysis, the following increases in ambient noise levels with the implementation of a proposed project would be considered significant:

- Greater than 1.5 dBA increase for ambient noise environments of 65 dBA CNEL and higher
- Greater than 3 dBA increase for ambient noise environments of 60 to 64 dBA CNEL
- Greater than 5 dBA increase for ambient noise environments of less than 60 dBA CNEL

Policy NOI-2.2: Reduce Noise Through Development Standards

Consider requiring noise reduction strategies to reduce noise impacts of new development on nearby sensitive receptors, and to guide the design of new noise-sensitive uses through appropriate means including, but not limited to, the following:

- Orient buildings to shield noise-sensitive outdoor spaces from noise sources.
- Screen and control noise sources such as parking lots, mechanical equipment including HVAC equipment, and outdoor recreational activities.
- Increase setbacks to serve as a buffer between noise sources and adjacent sensitive receptors.
- Construct noise barriers when other methods to reduce noise are not practical and when noise barriers will not shift similar noise impacts to another adjacent property. If fences, barriers, or walls are included, consider design, safety, and other secondary impacts.
- Use soundproofing materials, noise reduction construction techniques, and/or acoustically-rated windows and doors.
- Include auxiliary power sources at loading docks to minimize truck engine idling.
- Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.

Policy NOI-2.3: Encourage Alternative Sound Barriers

Encourage the use of nature-based noise attenuation strategies and materials.

Action NOI-2.3.1: Consider developing guidelines for natural sound barriers that incorporate living walls, dense landscaping, and other techniques that mitigate noise and create attractive and comfortable pedestrian environments.

Action NOI-2.3.2: Encourage alternatives to sound walls such as building orientation, quiet pavement, and landscaped buffers during the design process. Alternatives to sound walls include "quiet pavement," such as rubberized asphalt or open-grade asphalt concrete overlays.

Policy NOI-2.4: Reduce Property Maintenance Noise

Minimize property maintenance noise sources.

Action NOI-2.4.1: Require all maintenance noise sources (e.g., leaf blowers, mowers, and generators) to appropriately muffle equipment.

Action NOI-2.4.2: Encourage local landscapers and maintenance businesses to adopt the use of electrically powered tools.

Action NOI-2.4.3: Locate stationary noise-generating equipment such as generators as far as practical from existing nearby residences and other noise-sensitive land uses.

Policy NOI-2.5: Limit Non-residential Noise Sources

Manage non-residential noise sources located adjacent to residential and other noise-sensitive uses.

Action NOI-2.5.1: Mixed-use and commercial development applicants should locate noise-generating components such as loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other similar facilities away from residential uses where possible.

Action NOI-2.5.2: Require applicants of new mixed-use projects to submit an acoustical analysis demonstrating compliance with City noise standards prior to the issuance of a building permit.

Goal NOI-3: Temporary Noise

Minimize noise exposure from temporary noise sources.

Policy NOI-3.1: Require Reusable Construction Sound Barriers

Consider updating the City's IZO Performance Standards to require the use of reusable construction phase sound barriers.

Action NOI-3.1.1: Encourage the use of 100% reusable sound barriers.

Action NOI-3.1.2: Include sound barriers in the construction waste management plan and enforce CALGreen standards for waste reduction.

Policy NOI-3.2: Limit Construction Noise

Limit construction noise through reduction strategies and responsive action.

Action NOI-3.2.1: Consider updating the City's IZO Performance Standards to require additional construction noise reduction strategies (e.g., specific criteria for when to require the use of temporary noise barriers).

Action NOI-3.2.2: Consider revising the IZO Performance standards to require future development in or adjacent to residential and open space areas to implement noise reduction strategies for construction that will minimize impacts to wildlife and surrounding uses.

Policy NOI-3.3: Limit Noise from Special Events

Use siting and design to reduce sound from special events.

Action NOI-3.3.1: Consider requiring special events (including at the Fairgrounds) to limit noise pollution through site design (e.g., placement/direction of stages, height, location, and directionality of speakers), shielding, operational hour restrictions, and other controls (e.g., peak limiters and bandwidth limiters).

Goal NOI-4: Transportation Noise

Limit exposure to transportation noise through design and traffic noise management techniques.

Policy NOI-4.1: Reduce Transportation Noise Through Land Use Planning

Reduce the impacts of transportation noise on sensitive receptors through land use planning and noise attenuation strategies.

Action NOI-4.1.1: Develop existing and future noise contour maps showing areas of high ambient noise from transportation sources.

Action NOI-4.1.2: Require residential development along corridors within the 60 dBA CNEL noise contours or higher to incorporate noise reduction strategies to reduce both interior and exterior noise.

Policy NOI-4.2: Reduce Development Traffic Noise

Require development project applicants to mitigate noise impacts from increased traffic to less than significant levels per Policy NOI-2.1.

Policy NOI-4.3: Reduce Rail Noise

Coordinate with the maintenance department of SMART rail to request enhanced maintenance of rail infrastructure such as wheel lubrication and/or rail grinding on a regular basis.

Policy NOI-4.4: Ensure Adequate Noise Studies and Mitigation

Work with Caltrans to ensure that adequate noise studies are prepared and alternative noise mitigation measures are considered in State transportation projects.

Policy NOI-4.5: Limit Truck Traffic Noise

Consider exploring possible limitations on local truck traffic, including loading and unloading, specific routes, times, and speeds appropriate to each zoning district.

Goal NOI-5: Vibration

Limit the impacts of excessive vibration from temporary and ongoing operations from new development projects.

Policy NOI-5.1: Protect Buildings from Vibration

Protect building integrity from vibration damage.

Action NOI-5.1.1: Consider adopting a building architectural damage threshold of 0.12 inches per second (in/sec) peak particle velocity (PPV) for historic buildings, 0.2 in/sec for residential buildings, and 0.3 in/sec PPV for engineered buildings.

Policy NOI-5.2: Reduce Construction Vibration

Reduce impacts to sensitive receptors from vibration to less than significant levels.

Action NOI-5.2.1: Consider updating the Implementing Zoning Ordinance to include performance standards for vibration during construction such as the vibration standards in Policy 5.1.

Policy NOI-5.3: Reduce Vibration from Rail Traffic

Reduce the potential for vibration impacts from SMART commuter and freight rail traffic.

Action NOI-5.3.1: When evaluating projects with new vibration-sensitive uses near the SMART rail line, require that a vibration assessment be prepared for new vibration-sensitive uses within 200 feet of the SMART rail line. The ground-borne vibration and noise assessment shall be consistent with Federal Transit Administration-recommended methodology and criteria.

Notes

[1] The Flood Resilience and Land Use policy frameworks will be released after the other frameworks. These Frameworks relied on the development of a comprehensive update to the City's floodplain model, which was completed in late 2023.
[2] Environmentally responsible and resource-efficient planning, design, construction, operation, maintenance, renovation, and demolition of buildings
[3] Techniques to increase water infiltration, reduce runoff, and improve water quality
[4] The protection of workers' rights and livelihoods while economies are shifting to sustainable production, combating climate change, and protecting biodiversity
[5] The management of trees in urban settings
[6] The system of streets, walkways, trails, and railroads used to move goods and people
[7] The ease of reaching destinations by people of all abilities
[8] Public space that is open and accessible to the general public, including roads, trails, public squares, and parks
[9] Communication and coordination among local government and Native American Tribes
[10] Creating opportunities for every person to have a dignified, productive, and creative life