



CITY OF
**PALO
ALTO**

Planning & Transportation Commission Staff Report

From: Planning and Development Services Director
Lead Department: Planning and Development Services

Meeting Date: October 9, 2024
Report #: 2407-3215

TITLE

Recommend City Council Adopt a Draft Ordinance Updating the Palo Alto Municipal Code (PAMC) Section 18.40.140 (Stream Corridor Protection). Environmental Assessment: Exempt pursuant to CEQA Guidelines Section 15308 (Actions for Protection of the Environment).

RECOMMENDATION

Staff recommend the Planning and Transportation Commission (PTC) recommend the City Council adopt the Draft Ordinance updating the Palo Alto Municipal Code (PAMC) Section 18.40.140 (Stream Corridor Protection Ordinance).

EXECUTIVE SUMMARY

In response to the 2024 City Council Priority and the 2030 Comprehensive Plan policies for creek protection, this item is an update of the Stream Corridor Protection Ordinance to better protect and enhance the City's creeks and riparian areas. The existing ordinance has been in place for many years and requires an update to reflect current best practices of stream corridor protection.

The proposed ordinance update would expand the current 20-foot setback along creeks to 150 feet for properties west of Foothill Expressway and east of Highway 101. An expansion in setback from 20 to 40 feet is proposed for the area between Foothill Expressway and Highway 101. The update would also establish varying regulations within the setback; exemption opportunities for certain improvements to single-family properties; appropriate setbacks and conservation measures for undeveloped parcels; and a two-tiered exception processes. Staff conducted a study session with the Planning and Transportation Commission (PTC) in August 2024 and drafted an ordinance incorporating the feedback received. Staff will continue to consider input from the PTC and revise the ordinance as needed before presenting it for adoption at the City Council hearing, tentatively scheduled for November 2024.

BACKGROUND

Council Priorities

On March 4, 2024, the City Council adopted 78 Council Priority Objectives. The update to the Stream Corridor Protection Ordinance is included as one of the objectives under the category “Climate Change & Natural Environment: Protection & Adaptation.” The City Council directed staff to update the existing Stream Corridor Protection Ordinance consistent with the Comprehensive Plan policies related to creek protection.

Comprehensive Plan

The 2030 Comprehensive Plan (Comprehensive Plan), adopted in November 2017, includes several policies related to creek protection. The Comprehensive Plan recognizes the City’s creeks and riparian areas as “valuable resources for natural habitat, connectivity, community design, and flood control” that require protection and enhancement. As part of this recognition, the City’s Stream Corridor Protection Ordinance was identified for an update to reflect the importance of these resources.¹

Policy N3.3 of the Comprehensive Plan calls for the protection of the City’s creeks from the impacts of future buildings, structures, impervious surfaces and ornamental landscaping and preservation of the City’s creeks’ function as habitat connectivity corridors by establishing a range of setback requirements that account for existing creek conditions, land use characteristics, property ownership and flood control potential. Policy N3.3 contains three programs that refer to the potential ordinance update:

- Program N3.3.1 calls for the exploration of an ordinance update that expands setbacks along creeks to 150 feet for properties west of Foothill Expressway. The Program also references establishing design recommendations for development of sites within the setback, exemption opportunities for single-family properties, and appropriate setbacks and conservation measures for undeveloped parcels.
- Program N3.3.2 calls for similar consideration of expanded setbacks east of Foothill Expressway.
- Program N3.3.3 calls for the minimization of impacts in all creeks by limiting recreational trails to one side of natural riparian corridors, and by careful lighting design near riparian corridors.

Attachment B includes two Comprehensive Plan maps that show the creeks potentially affected by this ordinance update.

Existing Stream Corridor Protection Regulations

The existing Stream Corridor Protection Ordinance, which is set forth in Palo Alto Municipal Code Section 18.40.140 (Attachment C), requires streamside review for properties abutting a

¹ The Comprehensive Plan uses the term “creek” rather than “stream,” except when discussing the update of the Stream Corridor Protection Ordinance. However, given that the update of the Stream Corridor Protection Ordinance is the subject of this undertaking, the term “stream” will be used within the context of this report and the ordinance.

stream or within 50 feet of the top of a stream bank. This applies to development within all zoning districts, with some exceptions and limitations for projects in residential zoning districts.

In addition to the streamside review area, the existing ordinance includes requirements for the “slope stability protection area,” which is measured 20 feet landward of top of bank or to a point measured at a 2:1 (horizontal: vertical) ratio landward from the toe of bank, whichever is greater. Within the slope stability protection area, all structures are prohibited, including decks, swimming pools, spas, hot tubs, and parking lots. The slope stability area is intended to maintain the structural integrity of the bank, and functions like a setback because it does not allow any structures.

Upon adoption of the proposed ordinance, the existing Stream Corridor Protection provisions of PAMC Section 19.40.140, will be repealed and replaced (Attachment A). The crosswalk table comparing the existing and proposed ordinances that show which existing provisions remain in the proposed ordinance can be found in Attachment D.

Regulatory Framework

Numerous Federal, State, and regional regulations govern the protection of streams and their corridors. These include the Clean Water Act, which requires permits for work impacting U.S. Waters, and the Porter-Cologne Act, regulating waste discharge. The California Department of Fish and Wildlife also regulates streambed alteration. These regulations provide a framework for the City of Palo Alto to manage stream-side property in accordance with community goals, while adhering to Federal and State guidelines. The City has also endorsed the Santa Clara Valley Water Resources Protection Collaborative Guidelines, which may inform updates to local stream protection ordinances. More details on the regulatory framework can be found in the Existing Conditions report (Attachment E).

Planning and Transportation Commission Study Session

On August 14, 2024, the PTC conducted a study session on the Stream Corridor Protection Ordinance update. Staff presented a brief background on the project and research for PTC consideration for study session discussion.

A comparative analysis of stream setback and riparian buffer regulations in various jurisdictions within the San Francisco Bay Area was provided. While most jurisdictions have setbacks of 20-25 feet, some are as large as 100-200 feet. Some jurisdictions have different standards based on factors like hilly areas or perennial/intermittent streams. The points from which setbacks are measured in other cities vary, including top of bank, centerline, or edge of riparian vegetation. Top of bank measurement is likely to require surveys, potentially with field verification. Determining riparian vegetation extent can involve biologists, surveyors, or tree canopy outlines.

In addition to the comparative analysis of other jurisdictions, staff provided key findings from the Existing Conditions Report, which was published in July 2024 (Attachment E). An Existing Conditions Report was prepared to assess stream protection in Palo Alto. It summarized regulations, described the creek network, and reviewed development guidelines. The report

identified limitations in current stream mapping and compared riparian protections across the Bay Area. It also detailed the existing conditions along protected streams and provided recommendations for further review and refinement of the Stream Corridor Protection Ordinance. Key findings include discrepancies in stream mapping, varying conditions along streams, and the need for potential adjustments to setback requirements and definitions.

Staff recommendations and additional alternatives were presented to the PTC on five topics: Applicability, Exemption, Setback Distance, Stream Condition, and Exception Process. The PTC generally supported the staff recommendations but also raised questions and offered suggestions.

- **Applicability:** The PTC supported staff recommendation of applying regulations to all types of development, with exceptions for some single-family home projects. The PTC also suggested exploring exemptions for multi-family residential and nonresidential development, similar to those granted to some single-family home projects.
- **Exemption:** The PTC supported the staff recommendation of exempting properties in R-1, R-2, RMD zoning districts and existing development only along channelized streams east of Foothill Expressway and west of Highway. The PTC also supported exploring exemptions for some multi-family residential and nonresidential development.
- **Setback Distance:** The PTC supported the staff recommendation to require a 150-foot setback for properties located west of Foothill Expressway and east of Highway 101, and a 40-foot setback for properties between Highway 101 and Foothill Expressway. While there was consensus on the areas requiring a 150-foot setback, concerns were raised about the 40-foot setback proposed in the Urbanized Areas (west of Highway 101 and east of Foothill Expressway). Noting that other cities have smaller setbacks (20-25 feet), the PTC questioned the rationale for Palo Alto's larger setback and whether it might be perceived as overly burdensome.
- **Stream Condition:** The PTC supported the staff recommendation to require riparian vegetation to be maintained along natural creeks but not along channelized streams. Staff received feedback suggesting that culverted creeks should be excluded from riparian vegetation considerations.
- **Exception Process:** The PTC supported the staff recommendation to allow exceptions from requirements, particularly if larger setbacks are implemented. The PTC also supported a tiered approach, distinguishing between minor and major deviations from setback requirements, based on existing processes such as the Home Improvement Exception (HIE). The PTC recommended that the process for exceptions not be based on the variance framework and suggested that staff review San Jose's regulatory framework.

More detailed information on how the PTC feedback has been addressed and incorporated into the Draft Ordinance are discussed in the Analysis section.

ANALYSIS

The Analysis section provides a summary of the draft Stream Corridor Protection Ordinance (Attachment A) and rationale behind the staff recommendations.

Applicability

The existing ordinance defines the Streamside Review Area as, “all properties abutting a stream or located within 50 feet from the top of a stream bank, except those properties separated from the stream by a public street.” The Draft Ordinance merges this definition with “Streamside Setback,” as there was no longer a functional difference with the setback expanded to 150 feet.

The Draft Ordinance expands the applicability of the exiting regulation. Based on the feedback from the PTC, the Draft Ordinance requires compliance for any development in all zoning districts except R-1, R-2, and RMD. For developments in R-1, R-2, or RMD zoning districts. For development in R-1, R-2, and RMD zoning districts, the requirements apply only to those developments requiring discretionary review.

Furthermore, staff recommends an approach to address one-story developments that might encroach further into the Streamside Setback. The existing regulations, applying only to developments requiring discretionary review, excludes all one-story development. To address this, the Draft Ordinance includes a provision that would require new construction or additions in the R-1, R-2, or RMD zoning district that encroach further into the Streamside Setback to comply with the proposed regulations, even if no other discretionary approval would otherwise be required.

Exemptions

The Draft Ordinance provides some exemptions from the Streamside Ordinance requirements. The existing regulations include exemptions for properties separated from the stream by a public street; certain landscaping or stream bank stability when it involves less than three cubic yards of earthwork; interior construction or alterations; and utility service lateral replacements. In addition to existing exemptions, the Draft Ordinance includes exemptions for retaining walls, small storage buildings, and building improvements that are not encroaching further into the Streamside Setback than the existing condition. These are generally considered to have a minimal impact on the stream environment. Therefore, exempting them from the streamside review requirements reduces the regulatory burden on property owners while still protecting the stream corridor.

The current ordinance exempts developments in the R-1, R-2 or RMD zoning districts that do not require discretionary review. For consistency with Comprehensive Plan Program N3.3.1, the draft ordinance incorporates a two-tiered exception process that provides flexibility to address a range of development scenarios and site conditions. An alternative would be a blanket exemption for single-family properties, but this could pose risks to riparian habitat. The two-tiered exception process offers a balanced approach that protects valuable streamside resources while allowing for responsible development.

The Draft Ordinance further exempts existing development along channelized streams in Urbanized Areas (east of Foothill Expressway, west of Highway 101). This approach, which was supported by the PTC at the study session, recognizes the more urbanized pattern of the neighborhoods east of Foothill Expressway, and presumably the fewer opportunities for enhancing riparian vegetation along these channelized streams. It focuses specifically on channelized streams in which there are limited options for enhancing riparian vegetation. However, it does not exempt properties east of Foothill Expressway and west of Highway 101, in recognition of the need to maintain the integrity of the stream bank and riparian vegetation along natural streams.

Streamside Development Regulations

This section outlines the specific development standards that apply to properties located near streams. The primary goal of these requirements is to protect and enhance the riparian habitat and water quality of the streams. The different setback distances for Streamside Setback, Riparian Buffer, and Slope Stability Protection Area are defined in this section. The requirements cover various aspects of development, including vegetation management, paving restrictions, fence construction guidelines, limitations on specific uses and structures, grading regulations, and provisions for exceptions from the requirements.

Table 1 outlines the required Streamside Setbacks and Riparian Buffers for different types of streams (natural, channelized, and culverted/underground) in three distinctive areas within Palo Alto. Both areas are measured from top of bank. Stream Setback is a larger area where certain development activities are prohibited or restricted. In contrast, Riparian Buffer is the more immediate vegetated area adjacent to the stream, intended to protect water quality and provide habitat, and therefore includes more strict protections.

Table 1: Streamside Regulations

	Streamside Setback (ft) ⁽¹⁾	Riparian Buffer (ft)
Open Space and Rural Areas (west of Foothill Expressway)		
Natural Stream	150	30
Channelized Stream	150	none
Culverted/Underground Stream	n/a	none
Urbanized Areas (east of Foothill Expressway, west of Highway 101)		
Natural Stream	40	20
Channelized Stream	40	none
Culverted/Underground Stream	None	none
Baylands Areas (east of Highway 101)		
Natural Stream	150	30
Channelized Stream	150	none
Culverted/Underground Stream	n/a	none

NOTES:

⁽¹⁾ For natural streams and channelized streams in all locations, a Slope Stability Protection Area shall be maintained consisting of 20 feet landward from the top of bank or to a point measured at a ratio of 2:1 (horizontal: vertical) landward from the toe of bank, whichever is greater.

As shown in the Table 1 above, natural and channelized streams have streamside setbacks of 40 feet in Urbanized Areas (east of Foothill Expressway, west of Highway 101) and 150 feet in Open Space and Rural Areas (west of Foothill Expressway) and Baylands (east of Highway 101). Open Space and Rural Areas and Baylands Areas have the largest setbacks and buffers, reflecting the greater ecological sensitivity of these areas as well as recognizing the ecological importance of the wetlands. A smaller setback distance is proposed for the Urban Areas, acknowledging the existing development and infrastructure in these areas.

At the August 2024 study session, the PTC supported the staff recommendation to require a 150-foot setback for properties west of Foothill Expressway and east of Highway 101, and a 40-foot setback for properties east of Foothill Expressway and west of Highway 101. However, there were some concerns about having a 40-foot setback for properties west of Foothill Expressway and east of Highway 101. Research on other jurisdictions suggests that requirements typically range from 20 to 25 feet, except in hilly areas. However, the staff recommendation is consistent with the Santa Clara Valley Water Resources Protection Collaborative Guidelines. To address concerns related to burdens that this might place on some property owners, staff are proposing a two-tiered exception process, with the minor exception process being ministerial based on specific criteria. More information on the proposed exception process for the streamside properties is provided under “Exceptions” section below. Alternatively, the PTC could consider making a recommendation for a reduced Streamside Setback for channelized stream in the Urbanized Areas.

Consistent with the feedback received from the PTC, the Streamside Setback is not applicable to culverted/underground streams. This is because streamside setbacks are established to protect existing and potential corridor habitats which are unlikely to exist for underground streams.

In addition to the Streamside Setback and Riparian Buffer, the table notes that a Slope Stability Protection Area must be maintained for all natural and channelized streams, regardless of location. This area extends 20 feet landward from the top of the bank or at a 2:1 slope from the toe of the bank, whichever is greater.

Riparian Buffer General Requirements

The Riparian Buffer Requirements prioritize the preservation of native vegetation and ecological integrity. As a more stringent zone within the Streamside Setback, it prohibits any structures and allows only native plants to protect and restore vital ecosystems. This helps ensure clean water, healthy wildlife populations, and resilient landscapes in the face of increasing environmental challenges. All existing native plants must be retained unless removal is authorized, and any removed plants must be replaced. The introduction of non-native or invasive species is strictly prohibited, and only native riparian vegetation is permitted for new plantings. Ornamental landscaping is not allowed within the Riparian Buffer zone of natural

streams. When fences are necessary, they must be wildlife-friendly, set back from the bank, and adhere to specific material and construction standards.

During the PTC study session, the only concern related to Riparian Buffer, or riparian vegetation, was whether the property owners would be burdened with maintaining the vegetation. However, staff clarified their intention to ensure that existing or newly added riparian vegetation is not damaged or intentionally removed for reasons other than maintaining the riparian habitat.

Streamside Setback General Requirements

Streamside setback requirements are designed to balance the need for development with the critical importance of environmental protection near waterways. These requirements ensure that a portion of native vegetation is preserved, although some removal and replacement with native species are allowed. Ornamental landscaping is permitted, but only with non-invasive plants to promote biodiversity.

Fences that conform to the regulations outlined in PAMC Chapter 16.24 are also permitted. Structures such as loading docks and septic systems must maintain a minimum distance of 50 feet from the stream bank, although exceptions may be granted on a case-by-case basis. Buildings near streams should minimize their visual impact by avoiding the use of bright colors and reflective finishes. By adhering to these streamside setback requirements, the regulations seek to protect the delicate ecosystems of our waterways while still allowing for responsible development.

Exceptions

Larger setbacks from streams would provide ample opportunities to maintain or protect the riparian habitat that could be significantly impacted by development, especially in areas with substantial vegetation and water presence. Even in channelized creeks and streams, evidence of riparian habitat is often present. However, the goal of protecting these habitats can conflict with development in urban areas, which provide the community with homes and other essential services.

In order to mitigate some burdens on owners of properties along streams, the ordinance includes a two-tiered exception process so that property owners can more easily obtain approval for minor modifications or adjustments to the setback requirements, while still ensuring adequate protection for riparian habitats.

The minor exceptions would be provided for low-density residential development in the R-1, R-2, or RMD zoning districts as long as certain criteria are met. The exceptions would generally allow encroachment up to 15 feet into the required streamside setback for certain structures like the primary building, basement, and legal and nonconforming walls. They may also allow an alternative stream setback that is closer to the average of the existing setbacks of the adjoining properties, and may allow some horizontal and vertical (height of an existing wall) extensions. Staff considered the San Jose Riparian Ordinance before finalizing the findings for minor exceptions.

Major exceptions may be granted to those requests not accommodated by the minor exception process. The process is largely modeled after the existing Home Improvement Exceptions process, which involves a discretionary review and can be approved at the Director level, with the option for a Director's hearing if requested. The request would necessitate the submission of supporting documentation to demonstrate compliance with the required findings, which generally include: the absence of a reasonable alternative to avoid encroaching into the setback area, the encroachment will not significantly harm the streamside environment, and granting the exception will not negatively impact nearby properties.

NEXT STEPS

Staff will consider revisions to the Stream Protection Corridor Ordinance based on recommendations from the PTC. The Draft Ordinance is tentatively scheduled to be presented to the City Council in November 2024.

FISCAL/RESOURCE IMPACT

The implementation of the proposed ordinance is not anticipated to have any direct fiscal impacts on the City budget.

STAKEHOLDER ENGAGEMENT

Staff and the project consultants engaged with Palo Alto Neighborhood Associations, conducted a virtual Community Information Session, and conducted outreach to regional agencies including San Francisquito Creek Joint Powers Authority and the Santa Clara Valley Water District (Valley Water) to understand some of the concerns from the community and standards and procedures from partnering agencies.

- *Neighborhood Associations.* Initial outreach to Palo Alto neighborhood associations regarding the stream corridor project revealed varying levels of interest and concerns. Some leaders expressed support and desired to stay informed, while others offered contacts for additional stakeholders. One person supported a 150-foot setback west of Foothill but emphasized the need for flood control measures east of Foothill due to denser development. At least four of the neighborhood association representatives attended the community information session.
- *Community Information Session.* A community information session on March 5, 2024, saw diverse opinions on the proposed stream corridor ordinance update. While most attendees supported the update and increased setbacks, concerns were raised about balancing private property development with riparian improvements. Varying setback distances were suggested for different areas, with a 150-foot setback favored west of Foothill Expressway. Additionally, flood risk mitigation, "dark sky" measures, and bird safety were advocated for. However, opinions on dog parks within the setback area were divided.

- *Valley Water.* Meetings with Valley Water revealed a significant shift in 2006 where regulatory authority for areas beyond the stream bank in Palo Alto transitioned from Valley Water to the City. This led to the development of guidelines for land use near streams, emphasizing the importance of protecting riparian corridors. Notably, Valley Water frequently receives inquiries from Palo Alto residents seeking clarity on streamside property regulations.

Three comment letters were received prior to the study session in August 2024 (Attachment G) and are summarized as follows: the Santa Clara Valley Audubon Society and the Sierra Club Loma Prieta Chapter recommended allowing some recreational uses but not activities like lighted ball fields or dog parks within the proposed stream corridor setback. The Midpeninsula Regional Open Space District focused on protecting wildlife and riparian species. A community information session attendee suggested that mitigating the flooding risk and restoring channelized creeks should be higher priorities while pointing out that changing the creek setback in a highly developed area would not have a significant impact. No additional comment letters were received at the time of staff report preparation.

In preparation for the PTC hearing on October 9, 2024, a courtesy notice was sent at least 10 days prior to the hearing to inform property owners and tenants of properties within 300 feet of any stream in Palo Alto.

ENVIRONMENTAL REVIEW

The City has reviewed the proposed ordinance in accordance with that authority and criteria set forth in the California Environmental Quality Act (CEQA). The City, as the lead agency, anticipates that this ordinance will be exempt from CEQA in accordance with CEQA Guidelines Section 15308, which includes actions by regulatory agencies for the protection of the environment.

ALTERNATIVE ACTIONS

In addition to the recommended action, the PTC may:

1. Recommend the City Council adopt the Draft Ordinance with modifications.
2. Take no action on the Draft Ordinance and provide direction on desired changes.

ATTACHMENTS

Attachment A: Draft Ordinance

Attachment B: Creek Maps from the Palo Alto Comprehensive Plan

Attachment C: Existing Stream Protection Corridor Ordinance (PAMC 18.40.140)

Attachment D: Crosswalk Matrix Comparing Existing and Proposed Ordinances

Attachment E: Existing Conditions Report

Attachment G: Public Comment Letters

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