



Open Space Corridors Project

Staff Analysis Report – February 21, 2018

The Open Space Corridors (OSC) Project is one of the City's initial steps to implement the Parks and Open Space designation of the new Comprehensive Plan, *One Tacoma*. The Parks and Open Space designation includes a variety of areas including active park and recreation areas, passive open spaces, steep slopes, and other important habitat areas. Many of these lands remain privately owned and zoned to encourage development. While some sites are protected by critical area standards, others currently lack development standards that would adequately protect and retain the multiple important functions and values these lands provide. The current effort is an initial phase of the OSC Project, focusing on Critical Areas standards updates to better protect Biodiversity Corridors and Steep Slope areas. This approach would take significant steps toward preventing fragmentation of some of Tacoma's most valuable natural areas and clarify reasonable use of property in these areas.

Project Summary

Project Title:	Open Space Corridors Project – Phase 1
Applicant:	City
Location and Size of Area:	Changes will apply city-wide where critical areas are present.
Current Land Use and Zoning:	Multiple
Neighborhood Council Area:	Multiple
Staff Contact:	Elliott Barnett, Associate Planner 253-591-5389, elliott.barnett@cityoftacoma.org
Staff Recommendation:	Authorize for Public Review and Comment
Project Proposal:	<p>The following changes are proposed to TMC 13.11 Critical Areas Preservation Ordinance:</p> <p>Update standards for Fish and Wildlife Habitat Conservation Areas to ensure no net loss of critical areas functions and values for Biodiversity Areas/Corridors, and clarify reasonable use of property:</p> <ul style="list-style-type: none">• Clarify Biodiversity Areas/Corridors definition and review processes• Establish parameters generally limiting impacts to the least sensitive portions of the Biodiversity Areas/Corridors, and no more than 35% vegetation disturbance maximum• Clarify Biodiversity Areas/Corridors mitigation standards <p>Update standards for steep slopes as follows:</p> <ul style="list-style-type: none">• Clarify that vegetation retention is supported by the Best Available Science as the most appropriate management approach to steep slopes areas in many cases. <p>Updates are proposed for consistency and clarity to TMC 9.19 Trees and Shrubs – Planting, TMC 13.04 Platting and Subdivisions, and TMC 13.05 Permit Procedures.</p>

Planning and Development Services

City of Tacoma, Washington
Peter Huffman, Director



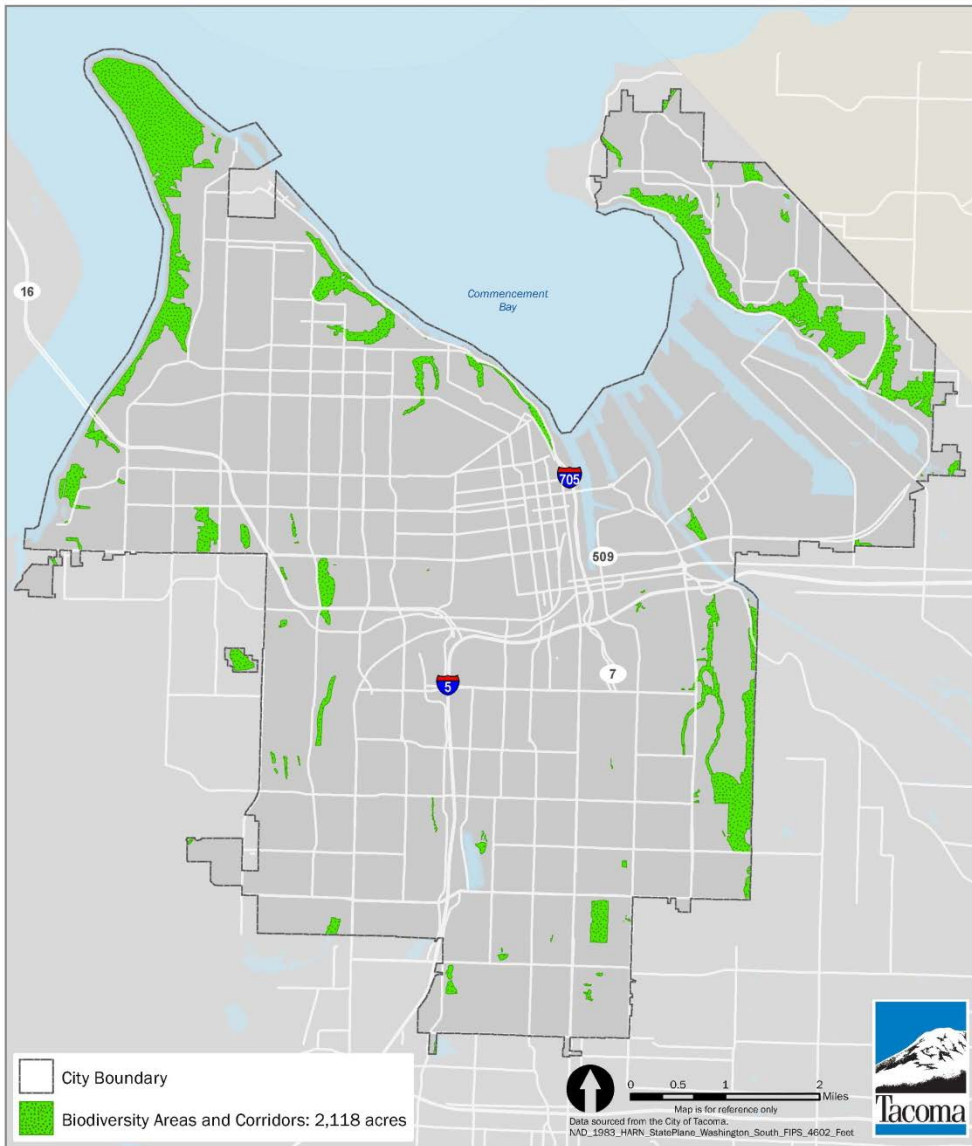
Project Manager

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1. Area of Applicability

This project consists of a critical areas standards update applicable primarily to Biodiversity Areas and Corridors—a subcategory of Fish and Wildlife Habitat Conservation Areas - Priority Habitats. In addition, changes are proposed to critical areas standards for steep slopes. Both changes are applicable citywide, where these critical areas are present, with the exception of Shoreline Districts which contain standalone critical areas standards.

High Probability Biodiversity Areas/Corridors



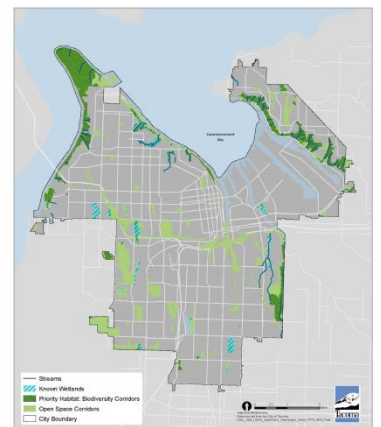
This map shows the City's initial assessment of likely Biodiversity Areas/Corridors. Additional site-specific research and public input will likely result in modifications.

Critical Areas in Tacoma Include both environmental assets:

- marine habitats,
- freshwater rivers,
- streams and lakes,
- wetlands,
- aquifer recharge areas,
- fish and wildlife habitat areas.

and environmental hazards:

- frequently flooded areas,
- geologic hazardous areas



Biodiversity Areas/Corridors include wetlands, streams and Priority Habitats



Steep Slopes are common within Biodiversity Areas/Corridors

2. Background

In 2009 the City designated the Habitat Corridors, renamed Open Space Corridors in 2015, in recognition of the multiple functions and values they provide. Tacoma's designated Open Space Corridors are distributed citywide and include the City's most important and valuable connected natural lands, as well as parks, recreational assets and other lands valuable as open space.

City, regional and state policy guidance calls for strengthening protections for urban open spaces and environmental assets, while allowing for reasonable use of property as required by state law. The *One Tacoma Plan* policies direct the City to take a range of actions to protect Tacoma's Open Space Corridors. City efforts to date have focused on voluntary and public conservation efforts. However, mounting development pressure means these efforts are unlikely to be adequate. A substantial amount of land within the corridors remains in private ownership and zoned for development.

Since a large proportion of designated Open Space Corridors contain critical areas, enhancing critical areas standards is an effective method to protect the corridors. The Best Available Science (BAS) demonstrates that maintaining connected vegetated corridors is critical to habitat health, and supports avoidance of development as the best management approach in steep slope areas (see *Exhibit A – BAS Summary*).

Several jurisdictions within the region employ standards such as clustering, clearing and grading limits, and habitat connection requirements to protect the functions and values of contiguous corridors. The common themes are avoidance, minimization and mitigation of vegetation removal and disturbance, while allowing for reasonable use of property as required by state law.

Current Regulations:

Since state adoption of the Growth Management Act, Tacoma has adopted and continued to refine Critical Areas standards to protect designated categories of environmentally sensitive lands. However, the standards vary across critical areas categories. Wetlands and Streams generally have the most robust and clearly defined standards. In contrast, current protections are not robust for Biodiversity Areas/Corridors, a subcategory of Fish and Wildlife Habitat Conservation Areas (FWHCA's). Furthermore, current standards for Geohazard areas are ambiguous regarding whether the intent is to avoid or minimize development on steep slopes, or to simply require that the slopes be made stable through engineering approaches.

Biodiversity Areas/Corridors are an inclusive critical areas category which incorporates multiple other critical areas including wetlands, streams, riparian areas and priority habitat areas. Tacoma's current critical areas standards for FWHCA's rely extensively on Washington State Department of Fish and Wildlife (WDFW) guidance and management recommendations for different types of habitats and species. However, WDFW does not provide clear standards for Biodiversity Areas/Corridors and instead calls for local jurisdictions to adopt standards such as vegetation retention and clustering to protect corridors.



Tacoma's designated Open Space Corridors

Tacoma's Open Space Corridors contain:

- About 5,350 acres total
- Ownership
 - 62% public
 - 23% private
 - 15% right-of-way
 - < 1% Tribal
- Zones
 - 74% single-family
 - 12% Multi-family
 - 6% Shoreline
 - 10% other zones



Peregrine Falcon

Geological hazards are designated as critical areas because of the potential hazard to life and property that could result if these areas are developed. Tacoma's current critical areas standards for geo-hazards are ambiguous in regards to whether "mitigation sequencing" applies, which would indicate that the development should avoid and minimize impacts to steep slopes when feasible. As a result, in some cases development has been allowed on steep slope areas, resulting in largescale vegetation removal. In the case of steep slopes located within Open Space Corridors, this approach is not consistent with policy intent. Furthermore, the Best Available Science for steep slopes calls for avoidance and minimization of impacts as the most appropriate approach.

In addition, Tacoma's current standards for Public Ways currently prohibit certain native tree species on unimproved lands, including open space. These provisions were intended to apply to public rights-of-ways, where some characteristics could be problematic, but as drafted the standards unnecessarily limit open space tree species selection.

Existing Conditions

Staff conducted a high level analysis of existing conditions within designated Open Space Corridors to support this effort. The majority of the Corridors are zoned for single-family residential development, and current land uses are primarily residential as well. Land ownership patterns are dispersed and include public, private, tribal and right-of-way.

A substantial proportion of the Corridors are critical areas or buffers. In particular, nearly half (40%) of the Open Space Corridors are high probability Biodiversity Areas/Corridors, subject to regulation under Tacoma's critical areas standards. These areas are generally part of largely undeveloped, connected forested corridors. Steep slopes are also prevalent in the Open Space Corridors. See *Exhibit B – Map Folio* for further information.

3. Policy Summary

Washington State Growth Management Act

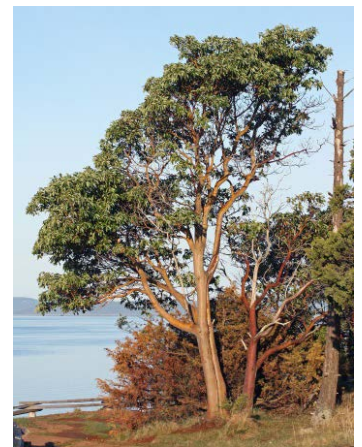
The Washington State Growth Management Act identifies the following as planning goals: maintain and enhance natural resource-based industries, including productive timber, agricultural and fisheries industries [RCW 36.70A.020(8)]; encourage the conservation of productive forest lands and productive agricultural lands, and discourage incompatible uses [RCW 36.70A.020(8)]; encourage the retention of open space and development of recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks [RCW 36.70A.020(9)]; and, protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water [RCW 36.70A.020(10)].

Countywide Planning Policies

The Countywide Planning Policies (CPPs) are goals, objectives, policies, and strategies to guide the production of the County and municipal comprehensive plans. The CPPs include goals and policies relating to the identification, designation, and conservation of open space and environmentally sensitive lands. The CPPs also identify strategies that municipalities may use to achieve the goals of the CPPs, including the use of buffers, development restrictions, incentives, transfer of development rights, and education among others.

Fish and Wildlife Habitat Conservation Areas include:

- Other critical areas such as wetlands, streams and riparian corridors
- Priority plant and animal species
- Priority Habitats
- Biodiversity Areas/Corridors are one type of Priority Habitat for which state standards are limited.



Madrone tree

Open Space Corridors Biodiversity Areas/Corridors contain:

- About 2,100 acres total
- About 30% privately owned
- Rough estimate of private development capacity: 3,200 dwellings



One Tacoma Planning Policies

As part of the City of Tacoma's Comprehensive Plan update, Parks and Open Space corridors were identified and integrated into the Future Land Use Map of the One Tacoma Plan. These areas are further defined as Open Space Corridors in the Environment and Watershed Health Element of the Plan and were designated consistent with the purpose and intent of the Growth Management Act and the Washington Administrative Code. Goals and policies supporting the preservation and enhancement of designated Open Space Corridors are integrated throughout the One Tacoma Plan.

Planning

Policy UF-11.1 Create an integrated system of Open Space Corridors that defines and enhances the built and natural environment, offers a well-balanced range of experiences, and enriches the lives of Tacoma's current and future citizens.

Policy UF-11.4 Recognize and promote the multiple benefits Open Space Corridor preservation and restoration provides to the city, including more resilient plant and wildlife communities, community health and well-being, stormwater retention, active living, beauty, scenic resources, economic development, and sense of civic pride and identity.

Policy EN-1.17 Assess and periodically review the best available science for managing critical areas and natural resources and utilize the development of plans and regulations while also taking into consideration Tacoma's obligation to meet urban-level densities under the Growth Management Act.

Manage Environmental Hazards

Policy EN-2.1 Minimize the risk of damage to life and property by establishing robust development standards that ensure avoidance and/or minimization of potential geologic hazards.

Policy EN-2.2 Require appropriate levels of study, technical analysis, best available science and all known available and reasonable methods of prevention control and treatment (AKART) as a condition to permitting construction within geologically hazardous areas, ensure sound engineering principles are used based on the associated risk in these areas and limit land uses within or near geologically hazardous areas.

Protect Assets

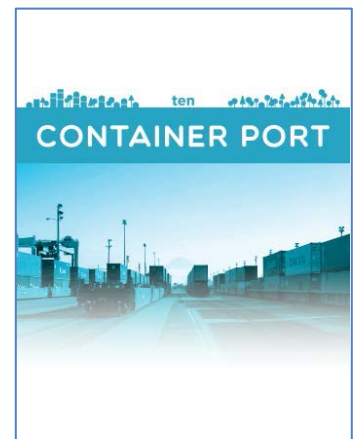
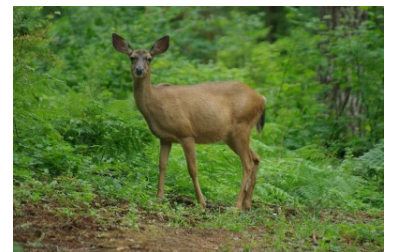
Policy EN-3.1 Ensure that the City achieves no-net-loss of ecological functions over time.

Policy EN-3.5 Discourage development on lands where such development would pose hazards to life, property or infrastructure, or where important ecological functions or environmental quality would be adversely affected:

- a. Floodways and 100-year floodplains
- b. Geologic hazard areas
- c. Wetlands
- d. Streams
- e. Fish and wildlife habitat conservation areas
- f. Aquifer recharge areas
- g. Shorelines

Biodiversity Areas/Corridors

WDFW defines Biodiversity Areas/Corridors as those areas within a city that contain habitat that is valuable to fish and wildlife. These areas are mostly comprised of native vegetation and relative to other areas vegetation is diverse with a mosaic of habitats. Corridors are defined as areas of relatively undisturbed land that is not fragmented and connects fish and wildlife habitat conservation areas, other priority habitat, or valuable habitats within a city.



The Container Port Element of the One Tacoma Plan identifies the steep slopes along Commencement Bay and Marine View Drive as a preferred natural buffer between industry and residential neighborhoods.

Policy EN–3.6 Limit impervious surfaces within Open Space Corridors, shorelines and designated critical areas to reduce impacts on hydrologic function, air and water quality, habitat connectivity and tree canopy.

Policy EN–3.7 Encourage site planning and construction techniques that avoid and minimize adverse impacts to environmental assets.

Improve Environmental Quality

Policy UF–11.2 Improve Open Space Corridors using a mix of tools including natural resource protection, property acquisition, natural resource restoration, tree planting and landscaping with native plants, and ecological design integrated with new development.

4. Objectives

Does the proposed amendment achieve any of the following objectives?

Address inconsistencies or errors in the Comprehensive Plan or development regulations.

The update addresses inconsistencies and code gaps in Tacoma’s critical areas standards. While standards are robust for many categories of critical areas, current code does not adequately guide City review of development proposed within Biodiversity Areas/Corridors and development located on steep slopes.

Respond to changing circumstances, such as growth and development patterns, needs and desires of the community, and the City’s capacity to provide adequate services.

These updates respond to increases in the pace of development pressure that can be reasonably anticipated within Tacoma’s Open Space Corridors. Since Habitat Corridors (now Open Space Corridors) were designated in 2009, development within these areas has taken place at a slow rate, presumably due to the costs of steep slopes development. In the past two years, as housing prices and demand has grown, interest in development in Open Space Corridors has increased, as evidenced by a sharp increase in development inquiries received by the City.

In addition, climate change is increasing the likelihood of more extreme precipitation events which could further destabilize steep slope areas and increase risks to life and property within and below these areas.

Having regulations in place to ensure the ongoing health of these areas is therefore prudent, and will provide clarity to property owners, people who live or work near open spaces, and the broader community.

Maintain or enhance compatibility with existing or planned land uses and the surrounding development pattern.

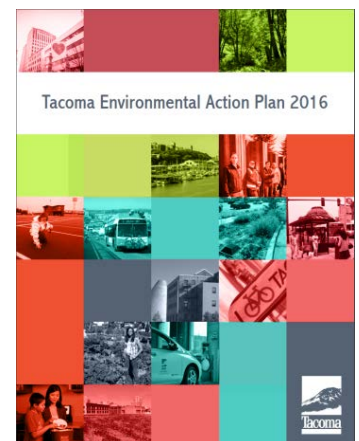
This update implements the Parks and Open Space designation of Tacoma’s Comprehensive Plan, *One Tacoma*. *One Tacoma*’s land use vision and policies call for

19 percent

The City’s estimated existing tree canopy coverage.

What tools does the City utilize to protect Open Space Corridors?

- Transfer of Development Rights
- Current Use Assessment
- Property Acquisition and Management
- Critical Areas Development Regulations



Tacoma’s Environmental Action Plan includes a target to adopt and implement code that discourages development where it would endanger life, property or infrastructure, or would adversely affect important ecological functions or environmental quality.

conservation of Open Space Corridors and their many benefits. These updates will be a significant step in preventing the fragmentation and de-forestation of the Open Space Corridors consistent with the City's land use policies.

Enhance the quality of the neighborhood.

Tacoma's Open Space Corridors are valued, character-defining assets that are integral to Tacoma's neighborhoods and the character of the City as a whole. The Comprehensive Plan calls for enhancement to human health through neighborhood design and development, integrating nature and the built environment, and providing green space as an important amenity within 20-minute walkable neighborhoods. Protecting treasured natural areas is anticipated to contribute to quality of life, public health, property values, livability and attractiveness of the City to existing and new residents and businesses.

5. Options Analysis

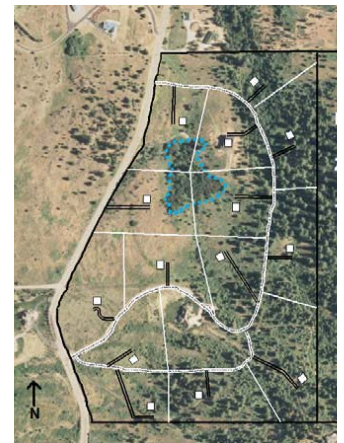
Several options were considered early in the Amendments process. In December 2017 the Planning Commission provided direction to pursue a phased approach. The current project phase consists of updates to Tacoma's critical areas standards. Other options and potential future policy initiatives are described below.

- **No change.**
This option is not recommended as it would maintain uncertainty regarding the application of Tacoma's Critical Areas Preservation Ordinance (CAPO) to Biodiversity Areas/Corridors and steep slopes with no clear methodology to ensure reasonable use of property or to ensure no net loss to the functions and values of these critical areas. The City would continue to evaluate development proposals on a case by case basis in the absence of clear standards, with little predictability for developers.
- **Staff recommendation.**
 - Update standards for Fish and Wildlife Habitat Conservation Areas to ensure no net loss of critical area functions and values for Biodiversity Areas/Corridors, and to clarify reasonable use of property:
 - Clarify Biodiversity Areas/Corridors definition and review processes
 - Establish parameters generally limiting impacts to the least sensitive portions of the Biodiversity Areas/Corridors, and no more than 35% vegetation disturbance maximum
 - Clarify Biodiversity Areas/Corridors mitigation standards
 - Update standards for steep slopes:
 - Clarify that vegetation retention is supported by the Best Available Science as the most appropriate management approach to steep slopes areas in many cases
 - Update related code provisions for consistency and clarity, including:
 - TMC 9.19 Trees and Shrubs – Planting
 - TMC 13.04 Platting and Subdivisions
 - TMC 13.05 Permit Procedures
 - TMC 13.11 Critical Areas Preservation Ordinance

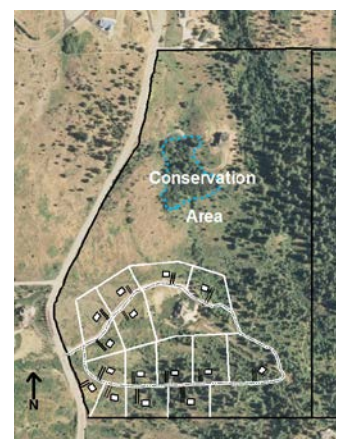
Climate Impacts

Anticipated climate change impacts in Tacoma include more extreme precipitation events (i.e., wetter winters and drier summers), an increased risk of mudslides, and greater flood risk in the Puyallup River (Dalton et al. 2014, Snover et al. 2013).

Sea level rise and storm surge may result in greater coastal flooding, erosion and destabilization of shoreline bluffs.



A large lot subdivision



Example of clustered development

(Source: WDFW 2009)

- **Other options for the Commission to consider.**

- Staff anticipate public input on the following topics, which will likely identify potential refinements after the public comment period:
 - Flexibility for small lots located in Biodiversity Areas/Corridors
 - Streamlined City review for voluntary habitat restoration
 - Updates to the high probability Biodiversity Areas/Corridors map reflecting site-specific input
 - Biodiversity Areas/Corridors identification checklist
 - Ensure the code clearly addresses how Biodiversity Areas/Corridors standards apply to City rights-of-way
 - Further clarify the Biodiversity Areas/Corridors classification (definition) to make it as clear and predictable as possible

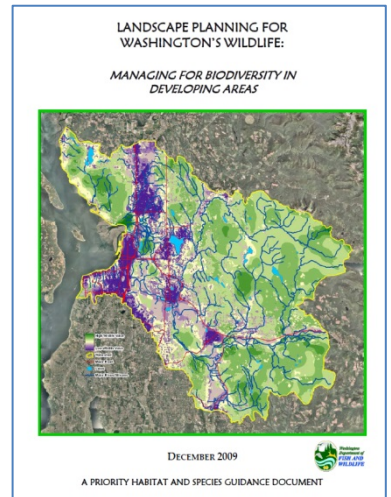
- **Future OSC Project phases and related policy initiatives.**

- CAPO Geohazards Best Available Science review and updates
- Consideration of creating an Open Space Overlay Zoning District
- Passive and active open space access and improvement planning and standards
- Updates to standards for tree planting, maintenance and pruning on public land and rights-of-way
- Shoreline Master Program update and Port/Tideflats Subarea Plan
- Landscaping Code updates for sites located within Open Space Corridors
- Open Space Program activities and management plans for specific areas

6. Impacts Assessment

Adoption of clear, substantive and reasonable critical areas standards for Biodiversity Areas/Corridors, clarifications to steep slopes standards and associated code clarifications would have a range of impacts in applicable areas, including the following:

- Contribute to maintaining air quality at the neighborhood scale through the natural process of tree transpiration
- Protect water quality by retaining vegetation that contributes to attenuation of stormwater flows and reduced erosion and runoff resulting from development activities
- Preserve the functions and values of Tacoma's most intact natural habitat areas and promote the ongoing survival of native plant and animal species as well as migratory birds
- Promote the health of aquatic habitats located in the vicinity of Tacoma's Open Space Corridors
- Preserve groves of mature trees, exceptional individual trees and connected vegetated corridors
- Maintain public contact with green spaces which provide a range of public health, educational and passive recreational benefits
- Promote watershed health
- Reduce future energy and resource consumption by focusing development in areas where infrastructure is available and development constraints are absent
- Provide for the efficient future provision of municipal utilities and services by locating development in areas that are easier to serve and access
- Promote a range of housing choices by directing development to appropriate locations and through incentives to conserve natural areas such as Transfer of



The Washington State Department of Fish and Wildlife (WDFW) provides a key source of best practices for managing biodiversity corridors.

Geo-Hazards

Geologically Hazardous Areas include areas susceptible to erosion, sliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible development is sited in areas of significant hazard.



Steep slopes landslides

Development Rights, tax reductions, and density bonuses

- Preserve the aesthetic quality of some of Tacoma's most scenic views
- Maintain natural separation and buffering between different land uses reducing light, glare, noise and other potential impacts
- Provide access to natural areas for passive recreation such as walking and hiking, wildlife viewing, and connections to Tacoma's shorelines

Development capacity

While existing regulations and site constraints such as steep slopes, wetlands and streams already limit development feasibility, the proposal would further reduce development capacity in some areas. As stated above, the majority of land within high probability Biodiversity Areas/Corridors is publicly owned. Of a total 2,100 acres, about 700 are in private ownership. Based on development capacity assumptions including zoning, regulations and development constraints, these private lands could potentially be developed with a maximum of 3,200 dwellings. This estimate assumes a full buildout, and does not consider the challenges and costs of development in areas with major constraints, and is therefore likely to be high.

The proposals take several steps to offset any potential loss in land value resulting from reduced development potential. The proposal provides for reasonable use of property through a clear regulatory process, provides incentives and density transfers to offset any reduction in land value, and incorporates flexibility such as corridor width averaging and minimum lot size reductions. In addition, the City has several existing initiatives to promote conservation within designated Open Space Corridors including Transfer of Development Rights, land acquisition and habitat restoration programs.

Staff have analyzed application of the proposed standards to hypothetical sites (see Exhibit C) in order to illustrate how they would apply. Outcomes would be determined on a site-specific basis.

7. Public Outreach

Planning staff worked closely with Environmental Specialist, Open Space and Urban Forestry staff to develop the proposals, in consultation with staff from the Washington State Department of Fish and Wildlife. In addition, the Planning Division engaged David Boe, Architect, to assist in scenario analysis.

To assist the public in understanding these proposals, a separate webpage has been developed at www.cityoftacoma.org/openspacecorridors. An interactive online map is available and allows the public to see how the proposals would apply both citywide and at the level of individual sites. During the public comment period, the map will be enabled to receive public comments pertaining to specific sites. Staff are developing and will regularly update a Frequently Asked Questions (FAQ) for the project.

Staff are engaging with residents, members of the development community, neighborhood groups, public agencies and the environmental community, including the following specific steps:

- Planning Manager's Letter to the Community (December 6, 2017)
- Open House (January 10, 2018) *public notice mailed to property owners within 1,000 feet of likely Biodiversity Areas/Corridors*



Open spaces in Tacoma

- Metro Parks Tacoma staff consultation (ongoing)
- Outreach to environmental organizations (ongoing)
- Sustainable Tacoma Commission meeting (January 16, 2018)
- Metro Parks Tacoma: Nature and Environment Advisory Council meeting (February 8, 2018))
- Master Builders Association Legislative Committee meeting (February 13, 2018)
- Community Council meeting (March 28, 2018)
- Northeast Tacoma Neighborhood Council meeting (March 15, 2018)
- Public Draft Open House (March 28, 2018)
- Planning Commission Public Hearing (April 4, 2018)

Key themes (to date)

While it is early in the public engagement process, key themes have begun to emerge from discussions with stakeholders and interested parties:

- There appears to be general public support for enhancing the City's standards to protect the functions and values of Open Space Corridors.
- Owners of property located within Biodiversity Areas/Corridors have expressed caution regarding further limitations on the use of their property.
- Metro Parks Tacoma staff are working with the City to ensure that proposed standards will not add undue regulatory effort or expense or limit regular vegetation, trail and park maintenance.
- Residents frequently seek to understand how regulations will apply to existing houses, yards and other improvements located within or near Biodiversity Areas/Corridors.

Staff are developing a Frequently Asked Questions document to address these and other questions during and after the public comment period.

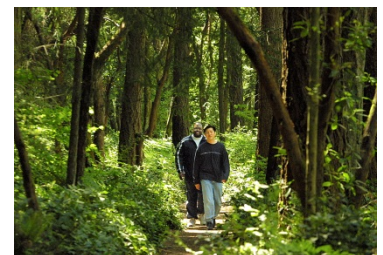
8. Supplemental Information

Exhibit A: Draft code amendments

Exhibit B: Code Approach Overview

Exhibit C: Best Available Science Summary memo

Exhibit D: Map folio



Open spaces in Tacoma



2018 Amendment Application No. 2018-10

Open Space Corridors – Phase 1

EXHIBIT A

PROPOSED AMENDMENTS TO THE TACOMA MUNICIPAL CODE TITLE 9 – PUBLIC WAYS TITLE 13 – LAND USE REGULATORY CODE

February 21, 2018

Notes:

These amendments show all of the changes to existing Land Use regulations.
The sections included are only those portions of the code that are associated with these amendments.
New text is underlined and text that has been deleted is shown as ~~strikethrough~~.

TITLE 9 PUBLIC WAYS

Chapter 9.19 Trees and Shrubs – Planting

- 9.19.030 Types of trees prohibited
- 9.19.040 Types of trees permitted

TITLE 13 LAND USE REGULATORY CODE

Chapter 13.04 Platting and Subdivisions

- 13.04.310 Subdivisions and Critical Areas

Chapter 13.05 Land Use Permit Procedures

- 13.05.010 Application requirements for land use permits
- 13.05.030 Director Decision Making Authority
- 13.05.040 Decision of the Director
- 13.05.050 Appeals of administrative decisions
- 13.05.095 Development Regulation Agreements

Chapter 13.11 Critical Areas Preservation

- 13.11.120 Intent
- 13.11.130 Scope and Applicability
- 13.11.140 Regulated Uses/Activities
- 13.11.145 Pre-existing Uses/Structures

13.11.190 Review Process
13.11.200 Allowed Activities
13.11.210 Activities Allowed with Staff Review
13.11.220 Application Types
13.11.230 Application Submittal Requirements
13.11.250 General Standards
13.11.270 General Mitigation Requirements
13.11.280 Conditions, Notice on Title, and Appeals
13.11.510 Classification
13.11.520 Standards
13.11.550 FWHCA's Mitigation Requirements
13.11.560 FWHCA's Management Areas
13.11.900 Definitions

TITLE 9

PUBLIC WAYS

Chapter 9.19

TREES AND SHRUBS – PLANTING

9.19.020 Conformance with surrounding property.

All trees and shrubs hereafter planted in any parking strip or other public place in any residential area in the City of Tacoma shall generally conform as to species, types, and location of any trees or shrubs adjacent to the property to be planted.

9.19.030 Types of trees prohibited.

It shall be unlawful to plant in any parking strip or ~~public place~~ improved right-of-way in any residential area of the City of Tacoma any of the following trees: Poplar, Willow, Cottonwood, Fruit Trees (except ornamental types), Nut Trees, Mountain Ash, Oregon or Big Leaf Maple or any other type or species of tree having any growth characteristic similar to those set forth above.

9.19.040 Types of trees permitted.

~~The following named trees~~ species shall be permitted in the parking strips or ~~public places~~ improved rights-of-way of any residential area per the direction of the City of Tacoma's Urban Forest Manual or other City-approved tree list: ~~Acer monspessulanum ('Montpelier maple'), Acer platancoides "Cleveland" ('Pyramidal Norway maple'), Acer pseudoplatanus ('planetree or sycamore maple'), Betula alba ('European white birch'), Carpinus betulus fastigiata ('upright European hornbeam'), Ginkgo biloba ('Japanese maidenhair tree'), Gleditsia triacanthos inermis ('thornless honey locust'), Liquidambar styraciflua ('American sweet gum'), Liriodendron tulipifera ('tulip tree'), Ostrya virginiana ('American hophornbeam'), Platanus acerifolia ('sycamore London plane'), Quercus borealis ('northern red oak'), Tilia cordata ('littleleaf European linden'), Ulmus americana columnaris ('American ascending elm'), Ulmus carpinifolia "Buisman" ('buisman elm'), Acer campestre ('hedge maple'), Acer davidi ('David's maple'), Aesculus carnea ('red horsechestnut'), Carpinus caroliniana ('American hornbeam'), Crataegus oxyacantha pauli ('Paul's scarlet hawthorn'), Crataegus phaenopyrum ('Washington thorn'), Magnolia kobus ('Kobus magnolia'), Malus spectabilis riversi ('rivers crabapple'), Malus icensis plena ('Bechtel crab'), Quercus coccinea ('scarlet oak'), Quercus palustris ('pin oak'), Prunus Vesuvius or Thundercloud ('purpleleaf plum'), Prunus serrulata Shiro-fugen ('flowering cherry'), Prunus serrulata Kwanzan ('Kwanzan flowering cherry'), Prunus sargentii ('Sargent's cherry').~~

9.19.050 Industrial and commercial areas.

It shall be unlawful for any person, firm or corporation to erect or maintain any shrub, plant, structure or container of any type or nature whatsoever for the purpose of beautifying any street or sidewalk upon, over, along or across any street or sidewalk in a business, industrial or commercial area, as defined in Title 13 of this Code, except when authorized by a public street beautification permit issued pursuant to a proper application, and subject to the terms and regulations of this chapter.

Chapter 13.04

PLATTING AND SUBDIVISIONS

13.04.310 Subdivisions and Critical Areas.

The subdivision and short subdivision of land in Critical Areas wetlands, streams, FWHCAs, and associated buffers/geo-setbacks is subject to ~~the following, and~~ Chapter 13.11.~~280260~~ and the following:

- A. Land that is located partially within a Critical Area wetland or its buffer/geo-setback may be subdivided provided that an accessible and contiguous portion of each new lot is located outside the Critical Area wetland and its buffer/geo-setback.
- B. Access roads and utilities serving the proposed subdivision may be permitted within the Critical Area wetland and associated buffers only if the Director determines that no other feasible alternative exists, and the project is consistent with the remaining provisions of this chapter.
- C. A protection covenant such as a Conservation Easement shall be recorded with the Pierce County Assessor's Office for wetland, stream or natural area tracts that are created as part of the permitting process.

Chapter 13.05

LAND USE PERMIT PROCEDURES

13.05.010 Application requirements for land use permits.

E. Notice of Complete or Incomplete Application.

3. If the application is determined to be incomplete, and/or additional information is requested, within 14 days after an applicant has submitted the requested additional information, the Department shall notify the applicant whether the information submitted adequately responds to the notice of incomplete application, thereby making the application complete, or what additional information is still necessary.

4. An application is complete for purposes of this section when it meets the submission requirements of the Department as outlined in Section 13.05.010.C and TMC Section ~~13.11.250~~ 13.11.230 for projects that may affect Critical Areas wetlands, streams, or their regulated buffers/geo-setbacks, even though additional information may be required or project modifications may be made later. The determination of a complete application shall not preclude the Department from requesting additional information or studies, either at the time of the notice of complete application or subsequently if new information is required or substantial changes in the proposed action occur, or should it be discovered that the applicant omitted, or failed to disclose, pertinent information.

F. Inactive Applications. If an applicant fails to submit information identified in the notice of incomplete application or a request for additional information within 120 days from the Department's mailing date, or does not communicate the need for additional time to submit information, the Department may consider the application inactive and, after notification to the applicant, may close out the file and refund a proportionate amount of the fees collected with the application.

13.05.030 Director Decision Making Authority.

A. Authority. The Director shall have the authority to act upon the following matters:

5. Applications for preliminary and final plats as outlined in Chapter 13.04, Platting;

6. Applications for Critical Area ~~Wetland/Stream/FWHCA~~ Development Permits, ~~Wetland/Stream/FWHCA~~ Verifications, and ~~Wetland/Stream/FWHCA~~ Minor Development Permits as outlined in Chapter 13.11;

7. Applications for Shoreline Management Substantial Development Permits/conditional use/ variances as outlined in Chapter 13.10;

13.05.040 Decision of the Director.

9. Construction of, or other provisions for, public facilities and utilities. In regard to the conditions requiring the dedication of land or granting of easements for public use and the actual construction of or other provisions for public facilities and utilities, the Director shall find that the problem to be remedied by the condition arises, in whole or significant part, from the development under consideration, the condition is reasonable, and is for a legitimate public purpose.

10. ~~Wetland/stream/FWHCA~~ Critical Area development permits, ~~wetland/stream/FWHCA~~ minor development permits, and ~~wetland/stream/FWHCA~~ verifications shall be subject to TMC Chapter 13.11.

Refer to Section 13.05.100 and TMC Chapter 13.11 for procedures to enforce permit decisions and conditions.

13.05.050 Appeals of administrative decisions.

A. Purpose. The purpose of this section is to cross-reference the procedures for appealing administrative decisions on land use proposals.

B. Applicability. The provisions of this section shall apply to any order, requirement, permit, decision, or determination on land use proposals made by the Director. These may include, but are not limited to, variances, short plat, wetland/stream development, site approval, and conditional use permits, modifications to permits, interpretations of land use regulatory codes, and decisions for the imposition of fines. Appeals of shoreline permit decisions shall be subject to the appeals process in the Shoreline Master Program and TMC Chapter 13.10. These provisions also do not apply to ~~exemptions~~ activities that are allowed with staff review under TMC Chapter 13.11.

C. Appeal to the Hearing Examiner. The Hearing Examiner shall have the authority to hear and decide appeals from any final written order, requirement, permit, decision, or determination on land use proposals, except for appeals of decisions identified in Chapter 13.04. The Hearing Examiner shall consider the appeal in accordance with procedures set forth in Chapter 1.23 and the Hearing Examiner's rules of procedure.

13.05.095 Development Regulation Agreements.

D. Review criteria. The City Manager, and such designee or designees as may be appointed for the purpose, shall negotiate acceptable terms and conditions of the proposed Development Regulation Agreement based on the following criteria:

7. Provisions are sufficient to assure requirements of parks and open space preservation.

8. Best available science and best management practices shall be used to address critical areas within the property covered by a Development Regulation Agreement adopted pursuant to this section. Review of a development activity's critical area impacts ~~that go beyond those exempted activities identified in Section 13.11.140 TMC~~ shall occur during the Development Regulation Agreement review process, and a separate critical areas permit is not required. Any Development Regulation Agreement approval(s) shall, to the maximum extent feasible, avoid potential impacts to critical areas, and any unavoidable impacts to critical areas shall be fully mitigated, either on- or off-site.

9. Interim uses and phasing of development and construction is appropriately provided. In the case of an interim use of a property or portion of a property, deferments or departures from development regulations may be allowed without providing a demonstrated benefit to the City; provided, that any departures or deferments to the Code requested for a final use of the property shall comply with criterion No. 10 below. The agreement shall clearly state the conditions under which the interim use shall be converted to a permanent use within a stated time period and the penalties for noncompliance if the interim use is not converted to the permanent use in the stated period of time.

Chapter 13.11
CRITICAL AREAS PRESERVATION

Sections:

13.11.100	General Provisions.
13.11.110	Purpose.
13.11.120	Intent.
13.11.130	Scope and Applicability.
13.11.140	Regulated Uses/Activities.
13.11.145	Pre-existing Uses/Structures.
13.11.150	<i>Repealed.</i>
13.11.160	Abrogation and Greater Restrictions.
13.11.170	Severability.
13.11.180	Critical Area Designation and SEPA.
13.11.190	Review Process.
13.11.200	Allowed Activities.
13.11.210	Activities Allowed with Staff Review.
13.11.220	Application Types.
13.11.230	Application Submittal Requirements.
13.11.240	Legal Test(s).
13.11.250	General Standards.
13.11.260	Residential Density Credits.
13.11.270	General Mitigation Requirements.
13.11.280	Conditions, Notice on Title, and Appeals.
13.11.290	Sureties.
13.11.300	Wetlands.
13.11.310	Wetland Classification.
13.11.320	Wetland Buffers.
13.11.330	Wetland Buffer Modifications.
13.11.340	Wetland Mitigation Requirements.
13.11.350	<i>Repealed.</i>
13.11.360	<i>Repealed.</i>
13.11.400	Streams and Riparian Habitats.
13.11.410	Stream Classification.
13.11.420	Stream Buffers.
13.11.430	Stream Buffer Modifications.
13.11.440	Stream Standards.
13.11.450	Stream Mitigation Requirements.
13.11.500	Fish and Wildlife Habitat Conservation Areas (FWHCAs).
13.11.510	Classification.
13.11.520	Standards.
13.11.530	<i>Repealed.</i>
13.11.540	<i>Repealed.</i>
13.11.550	FWHCA's Mitigation Requirements.
13.11.560	FWHCA's Management Areas.
13.11.580	<i>Repealed.</i>
13.11.600	Flood Hazard Areas.
13.11.610	Classification.
13.11.620	Standards.
13.11.640	General Development Standards.
13.11.700	Geologic Hazardous Areas.
13.11.710	Designation.
13.11.720	Classification.
13.11.730	General Development Standards.
13.11.800	Aquifer Recharge Areas.
13.11.810	Classification.
13.11.820	Standards.
13.11.900	Definitions.

Text changes are proposed to the sections highlighted in green.

13.11.120 Intent.

A. Critical areas include critical aquifer recharge areas, fish and wildlife habitat conservation areas (FWHCAs), flood hazard areas, geologically hazardous areas, stream corridors, and wetlands. These critical areas serve many important ecological functions. Many of the critical areas in Tacoma have been lost or degraded through past development. Tacoma, as an urban growth area, is experiencing increasing growth and its land resource is diminishing. This increasing growth and diminishing land resource is creating pressure for the development of critical areas. New construction technology is also creating pressure on these sites by making development feasible on sites where it was formerly impractical to build.

B. Because of the ecological benefits of critical areas, their past destruction, and the increasing pressure to develop them, the intent of this chapter is to ensure that the City's remaining critical areas are preserved and protected and that activities in or adjacent to these areas are managed. The preservation standards are provisions designed to protect critical areas from degradation. These criteria and standards will secure the public health, safety, and welfare by:

1. Protecting members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, volcanic eruptions, flooding or similar events;
2. Maintaining healthy, functioning ecosystems through the protection of ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conserve biodiversity of plant and animal species;
3. Preventing cumulative adverse impacts to ~~water quality, streams, FWHCAs, and wetlands~~ [Critical Areas](#) including the prevention of net loss of wetlands.
4. Providing open space and aesthetic value;
5. Providing migratory pathways for fish and ~~birds~~ [wildlife](#);
6. Giving special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries;
7. Providing unique urban wilds that serve as natural laboratories for schools and the general public;
8. Avoiding public expenditures to correct damaged or degraded critical ecosystems;
9. Alerting appraisers, assessors, owners, potential buyers, or lessees to the potential presence of a critical ecosystem and possible development limitations; and
10. Providing City officials with information, direction, and authority to protect ecosystems when evaluating development proposals.

13.11.130 Scope and Applicability.

A. The provisions of this chapter apply to all lands and waters, all land uses and development activities, and all structures and facilities in the City, whether or not a permit or authorization is required, and shall apply to every person, firm, partnership, corporation, group, governmental agency, or other entity that owns, leases, or administers land within the City. This chapter applies to all critical areas outside of the Shoreline District. This chapter specifically applies to any activity which would destroy vegetation; result in a significant change in critical habitat, water temperature, physical, or chemical characteristics; or alter natural contours and/or substantially alter existing patterns of tidal, sediment, or storm water flow on any land which meets the classification standards for any critical area defined herein. ~~Such activities include excavation, grading, filling, the removal of vegetation, and the construction, exterior alteration, or enlargement of any building or structure.~~ In addition, this chapter applies to all public or private actions, permits, and approvals in or adjacent to a critical area and its buffer [or geo-setback including, but not limited to, the following](#):

- [1. Building permits;](#)
- [2. Clearing and grading permits;](#)
- [3. Forest practices permits;](#)
- [4. Land Use permits;](#)
- [5. Subdivision and short subdivisions;](#)
- [6. Binding site plans;](#)
- [7. Zoning amendments;](#)
- [8. Creation of tax parcels. See TMC 13.06.602.A.1 or as amended-](#)

13.11.140 Regulated Uses/Activities.

Pursuant to the requirements of this chapter, a site review or permit shall be obtained prior to undertaking any of the following activities within Critical Areas or their associated buffer, [geo-setback](#), or management area, unless otherwise covered under Sections 13.11.200 and 13.11.210.

A. Filling, placing, or dumping any soil, loam, peat, sand, gravel, rock, chemical substance, refuse, trash, rubbish, debris, or dredge material;

13.11.145 Pre-existing Uses/Structures.

A. An established use or existing structure that was lawfully permitted prior to adoption of this chapter, but which is not in compliance with this chapter, may continue subject to the provisions of Tacoma Municipal Code (TMC) Chapter 13.11 Critical Areas Preservation and Section 13.06.630.

B. Except as otherwise required by law, a legal pre-existing use or structure may continue unchanged; or modified only where the use or structure becomes less non-conforming, and where the modification will increase the buffer, and increase the functions of the critical area.

C. All modifications for pre-existing structures, ~~other than trails~~, shall conform to the current code provision to the maximum extent possible as determined by the Director of Planning and Development Services.

13.11.190 Review Process.

A. The Review Process is used to determine whether a critical area, ~~or~~ critical area buffer, [or geo-setback](#) is present on or adjacent to a proposal, and whether additional review or permitting is required.

Critical areas may be located through the use of information from the United States Department of Agriculture Natural Resource Conservation Service, the United States Geological Survey, the Washington Department of Ecology, the Coastal Zone Atlas, the Washington Department of Fish and Wildlife stream maps and Priority Habitat and Species maps, Washington DNR Aquatic Lands maps, the National Wetlands Inventory maps, Tacoma topography maps, the City's Generalized Wetland and Critical Areas Inventory maps, and Pierce County Assessor's maps to establish general locations and/or verify the location of any wetland, or stream, or FWHCA site. The City's Generalized Wetland and Critical Area Inventory maps and other above-listed sources are only guidelines available for reference. [The City maps are not exhaustive, and other areas meeting the definition or intent will be included.](#) The actual location of critical areas must be determined on a site-by-site basis according to the classification criteria.

The City may utilize information from any source referred to above or available in order to establish general locations and/or to verify the location of any ~~critical area~~ [wetland, stream or FWHCA](#).

B. Site Review. In order to assist customers with potential proposals, City staff will provide an initial site review based on existing information, maps and a potential site visit to identify potential ~~wetlands, streams~~ [critical areas](#), and their associated buffers/[geo-setbacks](#) within 300 feet. ~~FWHCAs and their management areas will also be identified. The review area may be expanded where priority species or habitat are present.~~ Site reviews are completed on a case by case basis and may require the applicant to submit a [critical area assessment](#). ~~that may include: wetland delineation, wetland categorization, stream type and Ordinary High Water Mark location, hydrology reports, and priority fish and wildlife species and habitat presence information from WDFW or the City.~~

Following the site visit and Review Process, a project may proceed without further critical area permitting if the applicant can demonstrate the following:

1. There are no adverse impacts to the critical area or buffer, and

2. Structures and improvements are all located beyond the required buffers, and
3. Existing hydrology will be maintained to support critical areas, and
4. The proposed use or activity is consistent with WDFW [priority](#) species management recommendations.

C. In conjunction with the site review process, the Director of Planning and Development Services (the “Director”; see 13.11.900 D., below) may require additional information on the physical, biological, and anthropogenic features that contribute to the existing ecological conditions and functions to determine whether a formal ~~wetland/stream/FWHCA-critical area development~~ permit is required.

D. Review, Assessment and Permit Requirements.

1. Review of development activities within the jurisdiction of the Shoreline Management Act, including Puget Sound, Wapato Lake, or any stream where the mean annual flow is 20 cubic feet per second or greater are regulated under provisions of TMC 13.10 and the Tacoma Shoreline Master Program. Upon adoption of the new Shoreline Master Program on October 15, 2013, all code excerpts referring to the regulation of critical areas within the shoreline will no longer be valid and those critical areas shall be regulated under the new shoreline code TMC 13.10.

2. Review of development activities outside the jurisdiction of the Shoreline Management Act.

a. Development activities that require a land use or building [clearing or grading](#) permit do not require a separate Critical Areas permit [to review](#) for potential impacts to a FWHCA [Management Area](#), Geologically Hazardous Area or Flood Hazard Area provided:

(1) Identification of FWHCA’s and their Management Area, Geologically Hazardous Area and/or Flood Hazard Area are conducted according to 13.11.190 and none are found that would affect the development site, or

(2) If a ~~FWHCA or~~ FWHCA Management Area is found on the project site the applicant complies with applicable WDFW species management recommendation or with an approved Habitat Management Plan (HMP) submitted by the applicant.

(3) If a Geologically Hazardous Area is found on the project site the applicant complies with applicable prescriptive requirements and minimum standards of TMC 13.11.700 and follows the recommendations of their geotechnical expert, or

(4) If a Flood Hazard Area is found on the project site the applicant complies with the applicable prescriptive requirements and minimum standards contained within TMC 13.11.600.

b. Development activities that do not require a land use or building [clearing or grading](#) permit may require a separate ~~FWHCA~~ [Critical Area](#) permit under this Chapter.

c. [Per TMC 13.11.160, where multiple critical areas are present the project shall meet the minimum standards and requirements for each critical area including requirements for permitting.](#) A separate [critical area permit](#) ~~wetland/stream permit may be required when wetlands, streams or their associated buffers are found on the development site~~ [may be required when impacts cannot be avoided or the project cannot meet the standards of chapter.](#)

13.11.200 Allowed Activities.

A. Purpose. The purpose of this section is to allow certain activities that are unlikely to result in critical area impacts. The activities must comply with the protective standards of this chapter and provisions of other local, state, and federal laws. All activities shall use reasonable methods to avoid and minimize impacts. Any incidental damage to, or alteration of, a critical area, [geo-setback](#) or buffer, shall be restored or replaced at the responsible party’s expense.

B. The following activities may occur without City review or approval in compliance with the purpose stated above.

1. The maintenance and repair of legally existing utilities, roads, structures, or facilities used in the service of the public provided such work does not expand the footprint of the facility or right-of-way or alter any regulated critical area or buffer. Activities must be in compliance with the current City Stormwater Management Manual and Regional Road Maintenance Manual and provide all known and reasonable protection methods for the critical area.

2. The maintenance and repair of legally existing roads, structures, or facilities used in the service of the public to provide stormwater services may occur provided such work is in compliance with the current City Stormwater Management Manual and Regional Road Maintenance Manual and provides all known and reasonable protection methods for the critical area, and does not expand further into the critical area.

3. Holding basins and detention ponds that are part of the municipalities stormwater system are exempt from the permit provisions of this chapter when such holding basin or detention pond is controlled by an engineered outlet.

4. Maintenance of legally existing structures, accessways, trails, promenades, stairways, parking lots, and landscaping provided such work does not expand the foot print of the structure or right-of-way and does not alter any regulated critical area or buffer.
5. Passive recreational activities, educational activities and scientific research including, but not limited to, fishing, bird watching, walking or hiking and non-motorized boating.
6. The following can be removed by hand or hand-held light equipment provided that appropriate methods are used to protect native vegetation. Removal methods may be found in the Green Tacoma Partnership Habitat Steward Field Guide.
 - a. English Ivy may be removed from plants on which is adhered or rolled up off the ground provided ground disturbance is minimal and does not cause erosion.
 - b. Regulated noxious weeds as listed on the Pierce County noxious weed list that are required to be eradicated (Class A and Class B) as specified by the Pierce County Noxious Weed Board.
 - c. Invasive species removal in a critical area buffer when the total area is 1,000 square feet or less and slopes are less than 15%.
 - d. Refuse and debris.
7. Native vegetation planting in a critical area buffer [or Biodiversity Area/Corridor](#) when the total area is 1,000 square feet or less, slopes are less than 15% and a City approved planting plan is utilized.
8. On-site response, removal or remedial action undertaken pursuant to the Federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or remedial actions undertaken pursuant to a state Model Toxics Control Act (MTCA) order, agreed order or consent decree, or a Department of Homeland Security order that preempt local regulations in the findings of the order. Any subsequent use or redevelopment of the property may be eligible for modification of requirements in this chapter when they are in conflict with the order, such as re-vegetation that would disturb a protective cap placed to contain contaminated soils.

13.11.210 Activities Allowed with Staff Review.

A. Purpose. The purpose of this section is to allow City staff review to determine whether potential impacts to a critical area, ~~or~~ buffer [or geo-setback](#) may occur, without requiring a critical area permit. The staff review will ensure the activity meets the specific criteria below.

B. The following activities require review by City staff. Review and authorization may occur over-the-counter or staff may issue a letter of approval with conditions. Additional information and studies may be requested. Activities must comply with the protective standards of this chapter and provisions of other local, state, and federal laws. Any incidental damage to, or alteration of, a critical area shall be restored or replaced at the responsible party's expense.

1. Emergencies. Those activities necessary to prevent an immediate threat to public health, safety, or welfare or pose an immediate risk of damage to private property and that require remedial or preventative action in a timeframe too short to allow for normal processing. Emergency actions that create an impact to a critical area or its buffer shall use best management practices to address the emergency and, in addition, the action must have the least possible impact to the critical area or its buffer.

The person or agency undertaking such action shall notify the City within one (1) working day following the commencement of the emergency activity. The City shall determine if the action taken was within the scope of an emergency action and following that determination, may require the action to be processed in accordance with all provisions of this chapter including the application of appropriate permits within thirty (30) days of the impact. The emergency exemption may be rescinded at any time upon the determination by the City that the action was not, or is no longer necessary.

After the emergency, the person or agency undertaking the action shall fully fund and conduct necessary mitigative actions including, but not limited to, restoration and rehabilitation or other appropriate mitigation for any impacts to the critical area and buffers resulting from the emergency action in accordance with an approved mitigation plan. All mitigation activities must take place within one (1) year following the emergency action and impact to the critical area, or within a timeframe approved by the City and reflected within an approved schedule. Monitoring will be required as specified in the General Mitigation Requirements (Section 13.11.270).

2. Maintenance and repair of legally existing utilities, roads, structures, or facilities used in the service of the public may occur following review where alteration of the critical area or buffer is unavoidable. All activities must be in compliance with the current City Stormwater Management Manual and Regional Road Maintenance Manual and provide all known and reasonable protection methods for the critical area and shall not expand further into the critical area.

3. Isolated Category III or Category IV wetlands, which have been classified and identified as having a total cumulative area of less than 1,000 square feet, regardless of property lines are exempt from the provision of this Chapter provided they:
 - a. Are of low habitat function (less than 20 points in the Washington Wetlands Rating System for Western Washington).
 - b. Are hydrologically isolated and are not part of a mosaic wetland system.
 - c. Are not associated with a Shoreline of the ~~state or wetland~~state, or a wetland that is part of a riparian habitat area, or designated Biodiversity Area/Corridor, and
 - d. Are not critical habitat to local populations of priority species.
4. Geotechnical investigation activities may be performed, provided that an access plan, protection measures, best management practices, and restoration are utilized to protect and maintain the critical area where possible. These items must be included with the application.
5. Reconstruction or exterior remodeling, of existing structures and accessory structures provided that disturbance of native vegetation is kept to a minimum and any vegetation that is disturbed shall be replaced. This shall not apply to reconstruction which is proposed as a result of structural damage associated with a critical area, such as slope failure in a landslide hazard area or flooding in a flood hazard area.
6. One-time expansion of existing structures and accessory structures, provided that expansion of the developed footprint within the critical area or buffer does not increase by more than 25 percent and that the new construction or related use extends away from the critical area; keeps disturbance of native vegetation to a minimum; and replaces native vegetation that may be disturbed. This expansion may also occur in a direction parallel to the critical area if the expansion takes place upon existing impervious surfaces. A Notice on Title must be recorded to be eligible for staff review and approval.
7. Maintenance and repair of existing retaining walls and bioengineered stabilization measures designed to protect property from erosion.
8. Interrupted wetland, stream, ~~and FWHCA~~or buffers.
 - a. Where a legally established, pre-existing use of the critical area or buffer exists, those proposed activities that are within the critical area or buffer but are separated from the remaining critical area by a permanent substantial improvement, or are located in an existing permanent substantial improvement, ~~which serves to eliminate or greatly reduce the impact of the proposed activity upon the critical area~~ may be allowed provided that the detrimental impact to the critical area does not increase. The permanent substantial improvement must serve to eliminate or greatly reduce the impact of the proposed activity upon the critical area. However, if the impacts do increase, the City shall determine if additional buffer may be required along the impact area of the interruption. Substantial improvements may include developed public infrastructure (roads, railroads, dikes, and levees) and buildings. Substantial improvements may not include paved trails, sidewalks, parking areas, or bulkheads. Review of an interruption~~ed buffer~~ may require a functional analysis report for the type of critical area buffer that is affected. In determining whether a functional analysis is necessary, the City shall consider the hydrologic, geologic, and/or biological habitat connection potential and the extent and permanence of the interruption.
 - b. Where a legally established, pre-existing structure or use is located within a regulated ~~wetland or stream~~biodiversity area/corridor or buffer ~~area~~ and where the ~~regulated buffer area~~ is fully paved and does not conform to the interrupted ~~buffer~~ provision above, the biodiversity area/corridor or buffer will end at the edge of pavement, ~~adjacent to the wetland or stream.~~
9. Construction of pedestrian trails within the buffer of a Critical Area or within a Biodiversity Area/Corridor is permitted, subject to the following criteria:
 - a. The trail is constructed of pervious material such as bark chip or equivalent.
 - b. The trail does not cross or alter any regulated drainage features or waters of the state.
 - c. The trail shall be located within the outer quarter (¼) edge of the buffer, where possible, with the exception for limited viewing platforms.
 - d. The trail system discourages pedestrians from using informal trails that are not part of the designated trail system.
 - e. The trail is designed to avoid human disturbance to priority species and priority habitat. Trails constructed in Biodiversity Areas/Corridors shall avoid the most sensitive areas and species and must maintain a contiguous and unfragmented corridor for wildlife movement. Expansion of existing trail systems must demonstrate that the expansion will not result in additional disruption of wildlife movement and will avoid the most sensitive areas and species.
 - f. Low impact trails shall not be later widened or upgraded to impervious trails that encourage activities with greater impacts without additional review and required permitting.

g. Informational signs are required at trail heads, at a minimum, and are subject to City approval.

10. Voluntary enhancement of a critical area or buffer that exceeds the provisions above in 13.11.200.B.56 may be allowed if the activity meets the requirements of this section.

a. Individual projects

(1) Enhancement activities shall be limited to planting native vegetation, controlling noxious and invasive species and providing minor habitat structures such as nest boxes.

(2) Activities shall not include grading or water control structures.

(3) A planting plan containing information on vegetation species, quantities, and general location of planting areas including the identification of wetlands, streams, and their buffers, is required for review.

(4) Proper erosion control measures are provided.

(5) If equipment, other than hand-held equipment is utilized, list the type of equipment, methods and best management practices to prevent unnecessary impacts.

b. Community Projects

Multi-party projects ~~within designated Open Space Corridors, or adjacent vegetated areas that form expanded corridors~~ are encouraged. These projects shall not include new destination facilities or high-intensity recreation facilities as described in 13.06.560. The applicants may propose a programmatic approach pertaining to multiple sites and on-going restoration and enhancement activities as well as maintenance. A City approved habitat management template or equivalent must be provided that has been reviewed and approved by all property owners. In addition, the project is subject to the following:

(1) The primary focus is preservation and increase in biological functions through the preservation and improvement of habitat, species diversity and natural features.

(2) Preserves and connects ~~Open Space Corridor~~ critical areas.

(3) Includes goals, objectives, and measureable performance standards.

(4) Includes a monitoring plan and contingency plan.

(5) Trails shall comply with the provisions in Section 13.11.200.B.9.

(6) Buildings and paved surfaces shall be located outside of wetlands and streams ~~the critical area~~ and their buffers. When located in a Biodiversity Area/Corridor, buildings or paved surfaces must be located in the least sensitive area and must maintain a contiguous and unfragmented corridor for wildlife passage.

~~(7)~~ Picnic Tables, benches, and signage are allowed when they are located to avoid and minimize impacts.

(8) A maintenance plan that describes the proper techniques and methods used for on-going maintenance and preservation.

(9) The identification of a trained habitat steward who will be responsible for overseeing volunteers, employees, and/or contractors for all aspects of the project.

11. Hazard trees. The removal of hazard trees from the critical area or ~~critical area buffer~~ buffer/geo-setback that are posing a threat to public safety, or posing an imminent risk of damage to an existing structure, public or private road or sidewalk, or other permanent improvement, may be allowed following City staff review, or provided that a report from a certified arborist, landscape architect or professional forester is submitted to the City for review and approval. The report must include an evaluation for tree stabilization potential and removal techniques for the hazard tree and procedures for protecting the surrounding critical area and replacement of native trees. Where possible, the hazard tree shall be left as a standing snag and the cut portions shall be left within the critical area as habitat unless removal is warranted due to fire hazard, disease, or pest control.

12. Tree Pruning. Tree pruning may be allowed provided a report from a certified arborist, landscape architect or professional forester regarding the health of the tree is submitted, and a functional impact analysis from a qualified professional evaluating the functions of the critical area as a result of the pruning, is also submitted to the City for review and approval. No topping, complete removal or impacts to the health of the tree shall be allowed.

13. Watershed restoration projects that conform to the provisions of RCW 89.08.460 shall be reviewed without fee and approved within 45 days per RCW 89.08.490.

14. Fish habitat enhancement projects that conform to the provision of RCW 77.55.181 shall be reviewed without fee and comments provided as specified in RCW 77.55.181.

15. Demolition of structures.

13.11.220 Application Types.

A. This chapter allows three types of Critical Area applications, which result in the issuance of an administratively appealable decision consistent with Chapter 13.05. After the appeal period expires, the Director's approved decision becomes the official permit. Programmatic Restoration Projects processed under either the Minor Development Permit or the Development Permit may qualify for additional time extensions according to 13.05.070.

B. The three types of permits are as follows:

1. Verification. ~~Wetland Delineation, Stream OHWM, or FWHCA~~ Critical Area Verification. An applicant may request verification of a wetland, or stream, or FWHCA on the subject site or within 300 feet of the subject site without submitting plans for a specific project. A verification request may include presence, a boundary determination through wetland delineation or an Ordinary High Water Mark determination. A verification request may also include the jurisdictional status of a critical area.

2. Minor Development Permit. A Minor Development permit may be issued when an applicant cannot meet the minimum buffer requirements or where the Director determines that the proposal will result in temporary, minor, or de-minimis impacts to the buffer or critical area. The Director will consider the size of the area affected, the sensitivity of the critical area and/or presence of priority species and habitat when determining whether the impact is temporary, minor, or de-minimis. The project must comply with the following:

a. The project will not result in a permanent impact to the critical area that would require compensatory mitigation; and

b. Mitigation is provided to restore the site to pre-development conditions, including the maintenance of pre-development hydrological conditions and vegetation conditions.

c. For buffer modification, the project meets the following:

(1) Buffer averaging as allowed within Sections 13.11.330 and 13.11.430; or

(2) Buffer reduction as allowed within Section 13.11.330.

d. For FWHCA Biodiversity Areas/Corridors, the project meets the following:

(1) The project will meet the minimum standards in Section 13.11.590.B.

3. Development Permit. A decision will be issued where, the Director determines that avoidance and minimization have not eliminated all impacts and compensatory mitigation will be required as a result of the proposal.

a. The applicant must meet the requirements of one of three legal tests; No Practicable Alternatives, Public Interest or Reasonable Use, and

b. Demonstrate Mitigation Sequencing, and

c. Provide mitigation as required in accordance with this Chapter.

13.11.230 Application Submittal Requirements.

A. The purpose of information submittal and review is to require a level of study sufficient to protect critical areas and/or the public from hazards. All information submitted shall be reviewed as to its validity and may be rejected as incomplete or incorrect. Additional information or electronic copies of all information may be requested for review and to ensure compliance. In the event of conflicts regarding information submitted, the Director may, at the applicant's expense, obtain expert services to verify information.

B. The following items are required for permit review and approval, where applicable depending upon the critical area, the project and permit type, and as determined necessary by City staff.

1. A Joint Aquatic Resource Permit Application and vicinity map for the project.

h. Studies of potential flood, erosion, geological or any other hazards on the site and measures to eliminate or reduce the hazard.

4. A Compensatory mitigation plan shall be provided for all permanent impacts [to critical areas and their buffers](#) and will conform to the general mitigation requirements listed under Section 13.11.270 and any specific requirements identified in this chapter for the critical area. The plan shall include the following:

n. An evaluation of potential adverse impacts on adjacent property owners resulting from the proposed mitigation and measures to address such impacts.

[5. When the critical area is limited to a Geological Hazardous Area, the purpose of the information submitted is to obtain a level of study sufficient to protect the public from hazards.](#)

~~5~~6. Programmatic Development Permit. In addition to the requirements above an application shall also include a Management Plan for the area using an approved template format or equivalent. The following information shall be included in the document;

- a. Explanation of the voluntary restoration and enhancement components including phasing.
- b. Identification of the qualified habitat steward who will be responsible for overseeing restoration and enhancement activities.
- c. Explanation of training provided to individuals involved in activities to ensure an understanding of how to perform in accordance with the terms of the permit.

13.11.250 General Standards.

A. General permit standards. No regulated activity or use shall be permitted within a Critical Area [or buffer/geo-setback](#) without prior approval and without meeting the provisions of this section.

1. The applicant has taken appropriate action to first, avoid adverse impacts, then minimize impacts and finally, compensate or mitigate for unavoidable impacts;
2. The result of the proposed activity is no net loss of Critical Area functions;
3. The existence of plant or wildlife species appearing on the federal or state endangered or threatened species list will not be jeopardized;
4. The proposal will not lead to significant degradation of groundwater or surface water quality; and
5. The proposal complies with the remaining standards of this chapter, which include those pertaining to ~~wetland~~ compensation and the provision of bonds.

B. Low-impact uses and activities consistent with [critical area buffer/geo-setback](#) ~~the stream or wetland buffer function~~ may be permitted within a [buffer/geo-setback](#) that has not been reduced depending upon the sensitivity of ~~wetland-critical area~~ and intensity of activity or use. These may include pedestrian trails, viewing platforms, utility easements and storm water management facilities such as grass-lined swales that are used to sustain existing hydrologic functions of the critical area.

C. Yard Reduction. In order to accommodate for the required buffer zone/[geo-setback](#), the Director may reduce the front and/or rear yard setback requirements on individual lots. The front and/or rear yard shall not be reduced by more than 50 percent. In determining whether or not to allow the yard reduction, the Director shall consider the impacts of the reduction on adjacent land uses.

D. As an incentive, the buffer area between a wetland or stream and regulated activity may be reduced or averaged, not less than $\frac{3}{4}$ of its standard regulated buffer width, depending upon the intensity of use and the wetland category or stream type, if the wetland or stream and its buffer area are dedicated to the public by deeding the property to the City, with City approval. The Director shall determine whether the dedication is of benefit to the City for protection of natural resources.

~~E. Trail use and construction.~~

~~1. Trails shall be located on or near the outer quarter (1/4) edge of the buffer, where possible, with the exception of limited viewing platforms and crossings.~~

~~2. Where possible, trails and associated viewing platforms shall not be made of continuous impervious materials. Natural trails with pervious surfaces such as, but not limited to, bark chip are encouraged.~~

13.11.270 General Mitigation Requirements.

A. Unless otherwise provided in this Title, if alteration to a Critical Area, or its buffer/[geo-setback](#) is unavoidable, all adverse impacts resulting from a development proposal or alteration shall be mitigated using the best available science, so as to result in no net loss of critical area functions and values [and to ensure public health and safety](#). In making a determination as to whether such a requirement will be imposed, and if so, the degree to which it would be required, the Director may consider the following:

1. The long-term and short-term effects of the action and the reversible or irreversible nature of the impairment to or loss of the Critical Area;
2. The location, size, and type of and benefit provided by the original and altered Critical Area;
3. The effect the proposed work may have upon any remaining critical area or associated aquatic system;
4. The cost and likely success of the compensation measures in relation to the magnitude of the proposed project or violation;
5. The observed or predicted trend with regard to the gains or losses of the specific type of ~~wetland or stream~~[critical area](#); and
6. The extent to which the applicant has demonstrated a good faith effort to incorporate measures to minimize and avoid impacts within the project.

B. Mitigation projects shall not result in adverse impacts to adjacent property owners.

C. Mitigation shall be in-kind and on-site, when possible, and sufficient to maintain the functions and values of the critical area.

D. Mitigation shall not be implemented until after permit approval of the Director and shall be in accordance with all reports and representations made therein.

E. Mitigation Sequencing. When an alteration to a critical area or its buffer is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference.

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations.
5. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments.
6. Monitoring the required mitigation and taking remedial action where necessary.

F. Mitigation for Lost or Affected Functions. Compensatory mitigation shall address the functions affected by the proposed project or alteration to achieve functional equivalency or improvement and shall provide similar critical area or buffer functions as those lost, except when:

1. The lost critical area or buffer provides minimal functions as determined by a site-specific functional assessment, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington state watershed assessment plan or protocol; or
2. Out of kind replacement of ~~wetland, stream or FWHCA~~[critical area](#) type or functions will best meet watershed goals formally identified by the City, such as replacement of historically diminished critical areas.

G. Type and Location of Mitigation. Unless it is demonstrated that a higher level of ecological functioning would result from an alternative approach, compensatory mitigation for ecological functions shall be either in-kind and on-site, or in-kind and within the same stream reach, subbasin, or drift cell (if estuarine wetlands are impacted). Mitigation action shall be conducted within the same sub-drainage basin and on the site of the alteration except when all of the following apply:

1. There are no reasonable on-site or in subdrainage basin opportunities (e.g. on-site options would require elimination of high functioning upland habitat), or on-site and in subdrainage basin opportunities do not have a high likelihood of success based on a determination of the natural capacity of the site to compensate for impacts. Considerations should include: anticipated ~~wetland/stream/FWHCA~~[critical area](#) mitigation ratios, buffer conditions and proposed widths, available water to maintain anticipated hydrogeomorphic classes of wetlands, or streams when restored, proposed flood storage capacity, potential to mitigate riparian fish and wildlife impacts (such as connectivity);
2. Off-site mitigation has a greater likelihood of providing equal or improved critical area functions than the impacted critical area; and
3. Off-site locations shall be in the same sub-drainage basin unless established watershed goals for water quality, flood storage or conveyance, habitat, or other wetland functions have been established by the City and strongly justify location of mitigation at another site.

13.11.280 Conditions, Notice on Title, and Appeals.

A. The Director shall have the authority, in accordance with Chapter 13.05, to attach such conditions to the granting of any permit under this chapter deemed necessary to mitigate adverse impacts and carry out the provisions of this chapter. In addition, such conditions may include, but are not limited to, the following:

1. Placement of Notice on Title on the subject parcels;

In addition to provisions of Chapter 13.05, the owner of any property upon which approval under Title 13, Tacoma Municipal Code, or Chapter 2.02, Building Code, of the TMC, is sought with a critical area or critical area buffer/[geo-setback](#) verified on site through a Critical Area or building permit, shall record with the Pierce County Auditor a notice of presence of the critical area and buffer/[geo-setback](#) with the exception of protected information. Such recording shall contain notice of the critical area and buffer/[geo-setback](#) and the applicability of this chapter to said property. Such notification shall be in a form as specified by Planning and Development Services. The notice shall be notarized and the applicant must submit proof that the notice has been legally recorded before the final approval for development is issued. The notice shall run with the land and failure to record such notice shall be in violation of this chapter.

13. Fencing is required when the Director determines that a fence will prevent future impacts to a protected [critical area](#) ~~FWHCA, wetland or stream~~ or other natural habitat area. Fencing installed as part of a proposed activity shall not interfere with species migration, including fish runs, nor shall it impede emergency egress; and

14. Subdivisions. The subdivision and short subdivision of land in Critical Areas and associated buffers/[geo-setbacks](#) are subject to the following and Section 13.04.310:

a. Land that is located partially within a Critical Area or its buffer/[geo-setback](#) may be subdivided provided that an accessible and contiguous portion of each new lot is located outside the Critical Area and its buffer/[geo-setback](#).

b. Access roads and utilities serving the proposed subdivision may be permitted within the Critical Area and associated buffers/[geo-setbacks](#) only if the Director determines that no other feasible alternative exists and the project is consistent with the remaining provisions of this chapter.

c. A protection covenant such as a Conservation Easement shall be recorded with the Pierce County Assessor's Office for [critical areas](#) ~~FWHCA, wetland, stream~~ or natural area tracts that are created as part of the permitting process.

B. Compensatory mitigation as a condition. As a condition of a permit or as an enforcement action under this chapter, the City shall require, where not in conflict with a reasonable economic use of the property, that the applicant provide compensatory mitigation to offset, in whole or part, the loss resulting from an applicant's or violator's action or proposal.

C. Appeals. An appeal of a decision regarding a critical area, except for staff decisions regarding exemptions which are not subject to an administrative appeal, may be made in accordance with the provisions of Chapter 13.05 and Chapter 1.23 of the Tacoma Municipal Code.

13.11.300 Wetlands.

13.11.400 Streams and Riparian Habitats.

13.11.500 Fish and Wildlife Habitat Conservation Areas (FWHCAs).

13.11.510 Classification.

A. Fish and wildlife habitat ~~e~~Conservation ~~a~~Areas are areas identified ~~by the Washington Department of Wildlife~~ as being of critical importance to the maintenance of fish and wildlife species. All Fish and Wildlife Conservation Areas (FWHCs) are hereby designated as Critical Areas subject to the provisions of this Chapter. FWHCAs ~~These areas~~ may also include other critical areas such as geologically hazardous areas, stream corridors, wetlands, and these critical areas' associative buffers.

B. The City seeks to identify and map the location of FWHCAs taking into account WDFW mapping and other sources of information. However, City maps are not complete and other areas meeting the definition or intent will be included.

~~1-~~ Fish and Wildlife Habitat Conservation Areas (FWHCAs) ~~-Fish and Wildlife habitat areas~~ include:

1a. Lands and waters containing State priority habitats and species. Priority habitat and species are identified by the Washington State Department of Fish and Wildlife (WDFW).

a. As of the date of this ordinance, the following State terrestrial priority habitat and species are known to be located in the City of Tacoma:

- 1) Bald eagles;
- 2) Great blue herons;
- 3) Mountain quails;
- 4) Ospreys;
- 5) Peregrine falcons;
- 6) Pigeon guillemots;
- 7) Purple martins;
- 8) Seabird colonies;
- 9) Waterfowl concentrations;
- 10) Wood ducks;
- 11) Oak woodlands
- 12) Biodiversity Areas and Corridors-

b. FWHCA management areas are often used to protect and manage activities in or adjacent to terrestrial priority habitat associated with a specific priority species such as a nest or rookery site. The location and dimensions of FWHCA Management Areas are dependent on the species and habitat and as defined by specific management recommendations established by the Washington Department of Fish and Wildlife. While the standards for protection are species specific and established by WDFW, the FWHCA Management Areas remain subject to all applicable standards of this chapter.

c. WDFW generally defines Biodiversity Areas and Corridors as those areas within a city that contain habitat valuable to fish and wildlife. Biodiversity Areas and Corridors frequently overlap with and incorporate other specific Critical Areas including wetlands, streams, areas with Priority Species, and other types of Priority Habitat that contribute to their value. In addition to

the habitat they provide for wildlife, Biodiversity Areas and Corridors provide ecological services such as improved water quality and reduction of carbon dioxide.

(1). Biodiversity Areas include those areas that contain native vegetation that is diverse with a mosaic of habitats and microhabitats. Unlike FWHCA Management Areas, they are not associated with a specific priority species and their overall habitat function may be limited due to their location in a highly urbanized area; however, they are diverse relative to other areas in the City and support common urban species. They shall include the following:

(a) Areas with rare or uncommon plant species and associations designated by the City or identified by federal and state agencies such as the Department of Natural Resources Heritage Program.

(b) Areas dominated by a vertically diverse assemblage of native vegetation containing multiply canopy layers and/or areas that are horizontally diverse with a mosaic of habitats and microhabitats.

(2). Biodiversity Corridors provide functional wildlife corridors and shall include the following:

(a). Areas of relatively undisturbed and unbroken tracts of land that connect Biodiversity Areas, other Priority Habitat and Critical Areas, including shorelines.

(3).To determine the presence of Biodiversity Areas and Corridors, the city will assess the functions and values of the existing habitat in the context of adjacent properties and the collective ecosystem services. Biodiversity Areas and Corridors are not present when an area is already developed with legally established, pre-existing uses which serve to eliminate or greatly reduce the propensity of wildlife to use the area as habitat or a corridor. In addition to the criteria in TMC 13.11.210.B.8 for interrupted critical areas, the following will be considered:

(a).The Biodiversity Area/Corridor shall be a minimum size of two acres.

(b). The needs and requirements of species known or likely to occur must be considered as well as the ability of the habitat to provide wildlife access or movement.

(c). The following developments or uses may be considered as an elimination or significant reduction in the ability of an area to serve as a corridor for wildlife use. The permanence and extent of the use or development shall be considered.

- i. _____ multilane paved road(s) and their maintained rights-of-way.
- ii. _____ Wildlife-impassible fence(s)

(d). The following are examples of uses that may not reduce or eliminate the use of the area by wildlife or as a corridor.

- i. _____ Gravel road(s) and driveways
- ii. _____ Trails used for passive recreation
- iii. _____ Wildlife-passible fence(s)
- iv. _____ Unmaintained rights-of-way

d. As of the date of this ordinance, the following State aquatic priority habitat and species are known to be located in the City of Tacoma:

- 1) Orcas (Killer whale);
- 2) Seals and sea lions;
- 3) Anadromous fish (including Bull Trout);
- 4) Reticulate sculpins
- 5) Wetlands
- 6) Streams and riparian areas

2b. Natural ponds under 20 acres and their submerged aquatic beds that provide critical fish or wildlife habitat.

3e. Waters of the State, which are defined in WAC Title 222, Forest Practices Rules and Regulations. Waters of the State must be classified using the system in WAC 222-16-030. In classifying waters of the state as FWHCAs the following may be considered:

(a+) Species present which are endangered, threatened, sensitive, or priority;

(b2) Species present which are sensitive to habitat manipulation;

- (c3) Historic presence of priority species;
 - (d4) Existing surrounding land uses that are incompatible with salmonid habitat;
 - (e5) Presence and size of riparian ecosystem;
 - (f6) Existing water rights; and
 - (g7) The intermittent nature of some of the higher classes of Waters of the State.
- 4d. Lakes, ponds, streams and rivers planted with game fish, including those planted under the auspices of a federal, state, local, or tribal program and waters which support priority fish species as identified by the Washington Department of Fish and Wildlife.
5. Areas with which State or Federally designated endangered, threatened, and sensitive species have a primary association.
6. Habitats and species of local importance that have been identified as sensitive to habitat manipulation. Areas identified must represent either high-quality native habitat or habitat that has a high potential to recover and is of limited availability, highly vulnerable to alteration, or provides landscape connectivity that contributes to the integrity of the surrounding landscape. In designating habitat and species of local importance, the following characteristics will be considered:
- (a) Local population of native species that are in danger of extirpation or vulnerable and in decline.
 - (b) The species or habitat has recreation, tribal, or other special value.
 - (c) Long-term persistence of the species is dependent on protection, maintenance, or restoration of nominated habitat.
 - (d) Protection by other county, state, or federal policies and laws is not adequate to prevent degradation of the species or habitat.
 - (e) Without protection, there is a likelihood that the species or habitat will be diminished over the long term.
7. Area critical for habitat connectivity, including Open Space corridors designated in the City's comprehensive plan.
8. State natural area preserves and natural resource conservation areas.

13.11.520 Standards.

A. General Standards.

1. No development shall be allowed within a ~~F~~fish and ~~W~~ildlife ~~H~~abitat ~~C~~onservation ~~A~~rea with which state or federally endangered, threatened or sensitive species have a primary association without approval from the City of Tacoma and/or WDFW.
2. Preservation of FWHCAs are necessary to improve the likelihood that species will survive and or reproduce. Alteration of FWHCAs may reduce this likelihood. Activities allowed in FWHCAs shall be consistent with the species located there and all applicable state and federal regulations regarding that species. In determining allowable activities for ~~FWHCAs priority habitats and species~~ that are known or that become known, the provisions of the Washington State Hydraulic Code ~~and Department of Fish and Wildlife's (WDFW's)~~ Management Recommendations for Washington Priority Habitats and Species, best available science, and recommendations by other state or federal agencies with expertise for the species or habitat shall be reviewed. Development in these areas shall be in accordance with the requirements of the underlying zone and any overlapping critical area classification.

B. FWHCA Management Areas Standards

1. If a proposal meets the standards of this chapter and demonstrates that they are meeting the WDFW management recommendations for the priority species and their management area, then no separate Critical Area permit, may be required. (See TMC 13.11.190.D)
2. Typical standards may include seasonal restrictions for activities and required buffer widths from nesting sites. A Habitat Management Plan approved by WDFW may be required:

C. Biodiversity Areas and Corridors Standards

1. In managing Biodiversity Areas and Corridors, the intent is to maintain rare and uncommon plant species and associations and large patches of native vegetation that provide habitat and connecting corridors for animal movement as well as general ecological services. Preservation of Biodiversity Areas and Corridors is necessary to minimize the impacts of development to wildlife and conserve the City's most diverse areas. The following standards apply:

a. Preserve existing native vegetation on the site to the maximum feasible extent, prioritizing the most valuable and sensitive environmental assets by developing the least impactful area.

b. Maintain biodiversity functions to prevent habitat degradation and fragmentation and preserve habitat for priority and common urban species, as supported by the Best Available Science.

c. The applicant shall avoid all actions that degrade the functions and values of a Biodiversity Area and Corridor. When impacts cannot be avoided, they should be minimized and mitigated by limiting overall vegetation clearance, maintaining corridors, protecting the most sensitive environmental features, and clustering development that does occur.

~~3. As of the date of this ordinance, the following terrestrial priority habitat and species are known to be located in the City of Tacoma:~~

- ~~1) Bald eagles;~~
- ~~2) Great blue herons;~~
- ~~3) Mountain quails;~~
- ~~4) Ospreys;~~
- ~~5) Peregrine falcons;~~
- ~~6) Pigeon guillemots;~~
- ~~7) Purple martins;~~
- ~~8) Seabird colonies;~~
- ~~9) Waterfowl concentrations;~~
- ~~10) Wood ducks;~~
- ~~11) Oak woodlands~~

~~4. As of the date of this ordinance, the following aquatic priority habitat and species are known to be located in the City of Tacoma:~~

- ~~1) Orcas (Killer whale);~~
- ~~2) Seals and sea lions;~~
- ~~3) Anadromous fish (including Bull Trout);~~
- ~~4) Reticulate sculpins~~

~~25. Wetland and Stream.~~ In accordance with TMC 13.11.160.B, where a designated FWHCA geographically coincides with ~~a stream or wetland~~another critical area, ~~all the~~ appropriate ~~wetland or stream buffer~~critical area standards and associated ~~buffer/geo-setback~~ requirements shall apply as described within this Chapter.

13.11.550 FWHCA's Modification ~~Mitigation~~ Requirements.

A. All proposed modification in a FWHCA shall be in accordance with the standards of this ~~section~~Chapter, except where allowed through 13.11.200 or 13.11.210.

B. Modification ~~All FWHCA~~and mitigation will comply with applicable General Standards of TMC 13.11.250 and mitigation requirements specified in 13.11.270, including, but not limited to, mitigation sequencing, mitigation plan requirements, monitoring and bonding.

C. Where a designated FWHCA geographically coincides with another Critical Area~~a stream or wetland~~, modification and mitigation will comply with applicable ~~mitigation~~ requirements described within this chapter for each type of critical area and/or as recommended by state or federal agencies.

D. Habitat Management Plan. If the critical area review process as described in this chapter (13.11.~~190~~250) determines that the proposed project will adversely impact a FWHCA, a Habitat Management Plan shall be prepared as part of a development proposal ~~to avoid or minimize impacts to FWHCA's management areas~~, the following standards shall apply.

1. ~~The~~A habitat management plan shall be prepared in coordination with the WDFW~~Washington State Department of Fish and Wildlife~~ or federal agencies where appropriate and by a qualified professional. The professional must have an education and professional work experience relevant to the species and habitat being evaluated (See TMC 13.11.900 Qualified Professional).

2. ~~The~~^A habitat management plan may be included as part of a larger critical areas report and shall include all applicable requirements as listed in TMC 13.11.230 and~~contain~~, at a minimum, the following:

- a. Analysis and discussion on the project's effects on the FWHCA~~critical fish and wildlife habitat~~;
- b. An assessment and discussion on special management recommendations which have been developed for species or habitat located on the site by any federal or state agency;
- c. A discussion of mitigation sequencing and p~~P~~roposed mitigation measures which could avoid or minimize~~or avoid~~ impacts;
- d. Assessment and evaluation of the effectiveness of mitigation measures proposed; and
- e. Assessment and evaluation of ongoing management practices which will protect ~~critical fish and wildlife habitat~~ the FWHCA after development of the project site, including proposed monitoring and maintenance programs.
- f. For Biodiversity Areas and Corridors a detailed description of vegetation on and adjacent to the project area is required and may include a surveyed site plan with the specific location and species name of trees with a 12-inch or greater Diameter at Breast Height.

~~E. If mitigation is performed off site, a conservation easement or other legal document must be provided to the City to ensure that the party responsible for the maintenance and monitoring of the mitigation has access and the right to perform these activities.~~

E. The following shall apply for proposed modifications within or affecting Biodiversity Areas and Corridors.

1. In determining which areas are least sensitive to development impacts, the following criteria shall apply:

a. A minimum of 65% of the Biodiversity Area and Corridor area shall be left in an undisturbed natural vegetated state. The undisturbed area set aside shall contain all other Priority Habitats, Priority Species, and Critical Areas and Buffers that may be present, per applicable standards.

b. A contiguous Biodiversity Corridor with a width of 300-feet shall be retained connecting onsite and offsite Priority Habitats and Critical Areas including shorelines, as well as significant trees per the definition below. The minimum 300 feet shall be a contiguous area that enters and exits the property.

1) Where a legally created parcel cannot accommodate the 300 foot width corridor, then the maximum feasible width shall be provided in conjunction with maintaining a minimum 65% of the Biodiversity Area and Corridor.

2) Habitat corridor connections may be required to be wider when additional width is supported by the Best Available Science to support the function and values of species or habitat present

c. Retain significant trees and rare or uncommon plant species and associations as identified in the Habitat Management Plan and site plan survey.

1) Significant tree groves. Significant tree groves means a group of 8 or more trees 12- inches diameter or greater that form a continuous canopy. Trees that are less than 12-inch in diameter that are part of a grove's continuous canopy are also considered to be exceptional and cannot be removed if their removal may damage the health of the grove. Street trees shall not be included in determining whether a group of trees is a grove.

2) Retain exceptional trees. "Exceptional tree" means a tree or group of trees that because of its unique historical, ecological, or aesthetic value constitutes an important community resource, and is determined as such by the Director according to standards and procedures promulgated by the Department of Planning and Development.

d. Retain state or federally listed plant species or unique plant associations including habitats and species of local importance as designated by the City.

e. Development must be clustered and located in the least sensitive areas.

2. Proposals that meet the minimum standards in 1 above may be reviewed under a Minor Development permit. See TMC 13.11.220.B.2. Other proposals will require review under a Development Permit and must also demonstrate the following:

a). The project cannot meet the minimum standards in 1 above due to site constraints such as parcel size or other physical conditions and the inability is not the result a self-created hardship.

3. In planning the development of the site, consideration shall also be given to ongoing and future management needs such as vegetation maintenance, generally favoring setting aside a large, connected, contiguous areas as feasible

4. Buffer Averaging or reduction as described within section TMC 13.11.250.D., TMC 13.11.330, and TMC 13.11.430 for wetlands and streams can be utilized to average or reduce portions of buffers to accommodate development.

a. The standards for preservation of 65% of the gross site area and minimum 300 foot corridor width still apply

5. Corridor width averaging. The width of the corridor may be averaged to allow for reasonable use of the property when the following are met:

a). The averaged corridor width will not result in degradation of the Biodiversity Corridor or its ability to facilitate wildlife movement;

b). The corridor width is increased adjacent to the high-functioning or more sensitive areas and decreased adjacent to lower-functioning or less sensitive portion;

c). The corridor at its narrowest point is never less than ¾ of the required width; and

d). The total area of the corridor is equal to the area required without averaging.

F. Innovative mitigation per TMC 13.11.270.L. When the project cannot meet the minimum standards of this section or the project proponent can demonstrate that a different method will achieve equivalent or better protections for the critical area, it will be reviewed per the standards in 13.11.270.L.

G. Protection covenant such as a conservation easement shall be recorded with Pierce County Assessor's Office for critical areas that are identified as part of the review process per 13.11.280 (Conditions, Notice on Title, and Appeals).

H. If mitigation is performed off-site, a conservation easement or other legal document must be provided to the City to ensure that the party responsible for the maintenance and monitoring of the mitigation has access and the right to perform these activities.

~~13.11.560 FWHCA's Management Areas.~~

~~A. FWHCA Management Areas that do not geographically coincide with wetlands or streams are protected by species-specific Management Areas as established by Washington Department of Fish and Wildlife Management Recommendations for Washington's Priority Species. FWHCA Management Areas remain subject to TMC 13.11.250.~~

~~B. If a proposal meets all WDFW management recommendations for the species and their management area, then no development permit, exemption approval, assessment, or Habitat Management Plan is required.~~

~~C. Standards for the most common of these FWHCA's, Anadromous fish, include the following:~~

~~1. Anadromous fish:~~

~~a. All activities, uses, alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall be given special consideration to the preservation and enhancement of anadromous fish habitat, including but not limited to the following standards:~~

~~b. Activities shall be timed to occur only during the allowable work window as designated by WDFW for applicable species;~~

~~The activity is designed to provide an overall improvement in the function of the fish habitat or other critical areas; and~~

~~Any impacts to the functions of the habitat conservation area are mitigated in accordance with the approved critical area.~~

~~2. Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.~~

~~3. Fills, when authorized by the Director, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts, and shall only be allowed for water dependent activities and uses.~~

13.11.560 Biodiversity Area and Corridor Mitigation Requirements

A. Mitigation must compensate for the adverse impacts and achieve equivalent or higher ecological functions including, vegetation diversity and habitat complexity and connectivity.

B. Enhancement or Restoration requires the following ratios:

<u>Onsite Mitigation</u>	<u>Offsite Mitigation</u>
<u>1.5:1 Enhancement or Restoration</u>	<u>3:1 Enhancement or Restoration</u>

D. The protection covenant or conservation easement recorded with Pierce County Assessor's Office shall include all mitigation areas including those located off-site.

E. The following shall also be incorporated to minimize disturbance:

1. Minimize light disturbance by directing lights away from critical areas.
2. Place activities that generate noise furthest from critical areas.
3. Limit disturbance from humans and pets with “impenetrable” natural vegetation between the development and critical areas.
4. Design infrastructure to minimize impacts through such steps as designing narrower streets or integrating LID approaches.
5. Seasonal restriction of construction activities

13.11.600 Flood Hazard Areas.

13.11.700 Geologically Hazardous Areas.

The 700 section contains the general provisions, including the following:

- 13.11.710 Designation.
- 13.11.720 Classification.
- 13.11.730 General Development Standards.

13.11.710 Designation.

A. Designation of Geologically Hazardous Areas. Geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events. Areas susceptible to one or more of the following types of geo-hazards shall be designated as a geologically hazardous area:

1. Erosion hazard;
2. Landslide hazard;
3. Seismic hazard;
4. Mine hazard;
5. Volcanic hazard; and
6. Tsunami hazard.

13.11.730 General Development Standards.

The standards in this section apply only to geologically hazardous areas. ~~Other critical area standards may apply to areas which are exempted from the standards for geologically hazardous areas.~~ Geological Hazardous Areas are subject to all applicable provisions of this chapter. When critical areas are limited to Geological Hazards, the risk to public health and safety may be minimized by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels or when other critical areas are present, the Geological Hazardous Area must be avoided. The following definitions apply to this section:

“Geo-setback” is the minimum building setback from the applicable geo-hazard area.

“Geo-buffer” is a zone within a geo-setback area required to be vegetated with either native or non-native vegetation.

A. Erosion hazard areas.

1. Structures and improvements shall be required to maintain a minimum 50 foot geo-setback from the boundary of all erosion hazard areas (Note: where no distinct break exists, the top of a steep slope is the upper most limit of the area where the ground surface drops greater than 10 feet or more vertically within a horizontal distance of 25 feet). No geo-setback shall be required where the vertical relief of the slope is 10 feet or less. The geo-setback may be reduced to 30 feet where the vertical relief of the slope is greater than 10 feet but no more than 20 feet.

The 30-foot or 50-foot geo-setback may be reduced to a minimum of 10 feet for the following conditions:

- a. Construction of one-story detached accessory structures (garages, sheds, playhouses of similar structures not used for continuous occupancy) with less than 1,000 square feet of floor area, whichever is greater for existing residences.
- b. Addition to existing residences, including decks that have a maximum 250 square feet footprint of building, deck or roof area, whichever is greater, and are not closer to the top or bottom of the slope than the existing residence.
- c. Installation of fences where they do not impede emergency access.
- d. Clearing only up to 2,000 square feet during May 1 to October 1, if determined by the Building Official to not cause significant erosion hazard.
- e. Grading up to 5 cubic yards during April 1 to October 1 over an area not to exceed 2,000 square feet, if determined by the Building Official that such grading will not cause a significant erosion hazard.
- f. Removal of noxious or invasive weeds, provided such areas are protected from erosion with either native vegetation or other approved erosion protection.
- g. Forest practices regulated by other agencies.
- h. The construction of public or private utility corridors; provided it has been demonstrated that such construction will not significantly increase erosion risks.
- i. Trimming and limbing of vegetation for the creation and maintenance of view corridors, removal of site distance obstructions as determined by the City Traffic Engineer, removal of hazardous trees, or clearing associated with routine maintenance by utility agencies or companies; provided that the soils are not disturbed and the loss of vegetative cover will not significantly increase risks of landslide or erosion. [See TMC 13.11.200 and 210.](#)
- j. The construction of approved public or private trails; provided they are constructed in a manner which will not contribute to surface water runoff.
- k. Remediation or critical area restoration project under the jurisdiction of another agency.
- l. Where it can be demonstrated through an erosion hazard analysis prepared by a geotechnical specialist that there is no significant risk to the development proposal or adjacent properties, or that the proposal can be designed so that any erosion hazard is significantly reduced, the geo-setback may be reduced as specified by the geotechnical specialist. This geo-setback may be increased where the Building Official determines a larger geo-setback is necessary to prevent risk of damage to proposed and existing development. The development must also comply with the Specific Development Standards for Erosion and Landslide Hazard Areas. The erosion hazard analysis shall provide the following information:
 - (1) Alternative setbacks to the erosion hazard area.
 - (2) Recommended construction techniques for minimizing erosional damage.
 - (3) Location and methods of drainage and surface water management.
 - (4) Recommended time of year for construction to occur.
 - (5) Permanent erosion control (vegetation management and/or replanting plan) to be applied at the site.
- m. In addition to the erosion hazard analysis, a Construction Stormwater Pollution Prevention Plan shall be required that complies with the requirements in the currently adopted City Stormwater Management Manual. Clearing and grading activities in an erosion hazard area shall also be required to comply with the City amendments to the most recently adopted International Building Code.
- 2. Erosion hazard areas that are also landslide hazard areas shall be required to comply with all standards for landslide hazard areas as well.

B. Landslide hazard areas.

- 1. Structures and improvements shall be required to maintain a minimum 50-foot geo-setback from the boundary of all landslide hazard area. (Note: where no distinct break exists, the top of a steep slope is the upper most limit of the area where the ground surface drops greater than 10 feet or more vertically within a horizontal distance of 25 feet). No geo-setback shall be required where the vertical relief of the slope is 10 feet or less. The geo-setback may be reduced to 30 feet where the vertical relief of the slope is greater than 10 feet but no more than 20 feet.

The 30-foot or 50-foot geo-setback may be reduced to a minimum of 10 feet for the following conditions:

- l. The construction of public or private utility corridors; provided it has been demonstrated that such construction will not significantly increase landslide risks.
- m. Trimming and limbing of vegetation for the creation and maintenance of view corridors, removal of site distance obstructions as determined by the City Traffic Engineer, removal of hazardous trees, or clearing associated with routine maintenance by utility agencies or companies; provided that the soils are not disturbed and the loss of vegetative cover will not significantly increase risks of landslide or erosion. [See TMC 13.11.200 and 210.](#)
- n. Remediation, critical area restoration, or mining and quarrying where local regulation is pre-empted by state or federal law.

C. Specific Development Standards for Erosion and Landslide Hazard Areas.

1. The development shall not increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions. Note that point discharges onto adjacent properties is not permitted without approved easements. Dispersed flows meeting pre-developed flows will be permitted provided other development standards can be met.
2. The development shall not decrease slope stability on adjacent properties.
3. Such alterations shall not adversely impact other critical areas.
4. The proposed development shall not decrease the factor of safety for landslide occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code.
5. Structures and improvements shall minimize alterations to the natural contour of the slope, and the foundation shall be tiered where possible to conform to existing topography. Terracing of the land; however, shall be kept to a minimum to preserve natural topography where possible. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation.
6. Development shall be designed to minimize impervious lot coverage. All development shall be designed to minimize impervious lot coverage and should incorporate understructure parking and multi-level structures within the existing height limit.
7. Roads, walkways, and parking areas should be designed parallel to topographic contours with consideration given to maintaining consolidated areas of natural topography and vegetation.
8. Removal of vegetation shall be minimized [and only that which is needed to accommodate a structure.](#) Any replanting that occurs shall consist of trees, shrubs, and ground cover that is compatible with the existing surrounding vegetation, meets the objectives of erosion prevention and site stabilization, and does not require permanent irrigation for long-term survival.
9. The proposed development shall not result in greater risk or need for increased geo-buffers on neighboring properties.

13.11.800 Aquifer Recharge Areas.

13.11.900 Definitions.

13.11.900.B

Best management practices. (BMP's). Conservation practices or systems of practices and management measures that:

- a. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, and sediment;
- b. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;
- c. Protect trees and vegetation designated to be retained during and following site construction and use native plant species appropriate to the site for revegetation of disturbed areas; and
- d. Provide standards for proper use of chemical herbicides within critical areas.

Biodiversity Areas/Corridors. Biodiversity Areas and Corridors are those areas within a city that contain habitat valuable to fish and wildlife. Biodiversity Areas and corridors frequently overlap with and incorporate other specific Critical Areas including wetlands, streams, areas with Priority Species, and other types of Priority Habitat that contribute to their value.

Bioengineering. A combination of engineering techniques and natural products that increase the strength and structure of the soil through biological and mechanical means.

13.11.900.P

Parties of record. Individuals, entities and groups who have commented on a proposal in writing or in person or who have asked to be included on a mailing list for a specific proposal.

Priority habitats. Seasonal range or habitat element with which a given species is primarily associated and which, if altered, may reduce survival potential of that species over the long term. Priority habitats are designated by the Washington Department of Wildlife, Priority Habitat and Species Program, and may include habitat areas of high relative density or species richness, breeding habitat or habitats used as winter range or movement corridors. Habitats of limited availability or with high vulnerability to alteration, such as cliffs, talus, [Biodiversity Areas/Corridors](#) and wetlands, may also be included.

Priority species. Species which are of concern because of their population status and sensitivity to habitat alteration. Priority species are designated by the Washington Department of Wildlife, Priority Habitat and Species Program, and may include endangered, threatened, sensitive, candidate, monitored, or game species.

END



Open Space Corridors Project

Exhibit B: *Code Approach Overview*

This document is intended as a reader's guide to the proposed code changes (Exhibit A). The following summary seeks to aid in understanding the intended outcomes of the proposed code changes.

The overall intent of this project is to update the City's critical areas standards which are housed in Tacoma Municipal Code (TMC) Chapter 13.11. However, the TMC also references critical areas in other sections. While the majority of text changes are within TMC 13.11 Critical Areas Standards, text changes for consistency and clarity are also proposed to TMC Title 9 Public Ways, TMC 13.04 Platting and Subdivisions and TMC 13.05 Land Use Permit Procedures.

Section 1 gives an overview of the City's existing critical areas standards

Section 2 summarizes the intent of the Biodiversity Areas/Corridors proposals

Section 3 provides examples of how the proposals would apply in a hypothetical development scenario

1. Critical Areas Preservation Ordinance Overview

Critical areas standards intent

The intent of the critical areas code is to protect and preserve Critical Areas for their ecological benefits and the protection of the public from loss of life or property due landslides and flooding. The Critical Areas Ordinance protects the following types of Critical Areas:

- Wetlands
- Streams
- Fish and Wildlife Habitat Conservation Areas
- Flood Hazard Areas
- Geological Hazardous Areas
- Aquifer Recharge Areas

Development near critical areas is governed by the Growth Management Act which was enacted in 1990. The act requires local governments to protect critical areas.

Where are Tacoma's critical areas located?

The identification of critical areas often requires access to property to assess the physical conditions, such as soil and vegetation. Therefore, the City cannot accurately map and survey all critical areas.

The City maintains maps to depict the location of known and probable Critical Areas. However, the City's generalized Critical Area maps and those of other agencies are not based solely on physical observation of conditions and utilize other technology such as aerial imagery and LiDAR or hydrologic modeling.

The maps in some instances reflect known Critical Areas but also other areas that have a high probability of containing critical areas. For known Critical Areas the maps do not depict the precise location. The mapping is not an exhaustive inventory of all Critical Areas. Due to this, the exact location of critical areas is determined through the performance of a field investigation during the review and permitting process.

Review process

The City conducts a review process to determine if a critical area exists and to determine whether potential impacts to a critical area or buffer may occur. The City will use the Critical Area generalized maps and mapping data of other agencies to determine if critical areas might be present. A field inspection may be required to confirm the presence or absence of critical areas.

Applicability and regulated activities

The applicability of the Critical Area Ordinance applies to all uses and developments private or public, and for permits and approvals in or adjacent to a critical area. Activities that are regulated include any act which would alter the vegetation, soils, water quality and quantity, or water temperature. The activities listed include:

- Filling, excavating, dredging, grading, clearing, discharge of hazardous substances, draining, and alteration or removal of vegetation.

Activities that don't require a permit

In general, regulated activities require City review and approval. The code does have allowances for minor activities to occur without any review or approval, including the following:

- Repair and maintenance of legally existing utilities, roads, structures, trails, and landscaping
- Removal by hand or with light equipment of English ivy and noxious weeds that are required to be eradicated by the Pierce County Noxious Weed Board
- Removal of invasive weeds in areas that are not prone to erosion concerns (such as slopes)
- Removal of refuse and debris
- Native vegetation planting in buffers of critical areas that are not prone to erosion concerns

Other minor activities that can be approved by staff without a permit include:

- Reconstruction or exterior remodeling of existing structures, provided that disturbance is minimal
- One-time minor expansion of existing structures and accessory structures
- Construction of pervious trails in the buffer of a Critical Area
- Voluntary habitat restoration and enhancement in Critical Areas

Permit types

For other activities, a permit is required. There are three permit types:

- Minor Development permits generally apply to work in a critical area buffer.
- Development permits generally apply to work in a critical area. This permit requires that the applicant provide justification in the form of what the code refers to as a legal test. The legal tests provide allowances for reasonable use and public interest.
- There is also a verification permit that does not require a project proposal or development. It is a review and concurrence from the City on the type, location, rating, and required buffer for Critical Areas. Developers can use this process to identify portions of their site that will be restricted, in advance of designing their development proposal.

General requirements

For all activities, regardless of a formal staff approval or permit, Mitigation Sequencing is required. Mitigation Sequencing requires that the first step is to avoid the critical area. If it cannot be avoided then the impact must be minimized and mitigated to achieve functional equivalency or improvement.

2. Proposed Code Amendments

The proposed code changes are intended to implement the following approach to Biodiversity Areas/Corridors.

Biodiversity Areas/Corridors definition

Changes primarily to TMC 13.11.500 FWHCA's section

See Exhibit A – *pages 16 to 22*

The CAPO includes standards for Biodiversity Areas and Corridors as a subcategory of Fish and Wildlife Habitat Conservation Areas (FWHCA's). FWHCA's are defined as including wetlands, streams, riparian areas, and priority habitat areas. Technically, Biodiversity Corridors/Areas are a type of Priority Habitat. WDFW maps Biodiversity Corridors/Areas in the Puget Sound region. In Tacoma, WDFW's maps overlap substantially with the City's designated Open Space Corridors (see Environmental Assets map).

PROPOSALS:

1. Adopt a clear Biodiversity Areas/Corridors definition, consistent with Washington State Department of Fish and Wildlife guidance and mapping
2. Clarify how specific circumstances, such as existing disruptions of habitat functions, will be evaluated to determine how a specific site will be regulated

Protecting Biodiversity Areas/Corridors functions and values

The overall intent is to ensure that there is no net loss to the functions and values of Tacoma's Biodiversity Areas/Corridors. The Best Available Science indicates that the following actions are essential:

- Limit overall vegetation disturbance to no more than 35%
- Avoid impacts to other critical areas and their buffers

- Protect a minimum width of connected wildlife corridors required for the survival of the species present
- Protect significant groves of mature trees and exceptional individual trees

The proposal builds in protections for these essential environmental assets. When proposed impacts are limited to fit within the following parameters, and are fully mitigated, the City can ensure that there will be no net loss to the functions and values of the Biodiversity Corridor.

Biodiversity Area/Corridor Minor Development Permit Criteria

- Locate development outside of Biodiversity Areas/Corridors when feasible
 1. Residential Density Credits options are available to cluster development outside critical areas
- If not feasible to avoid impacts to the Biodiversity Area/Corridor
 1. Minimize impacts
 - i. No more than 35% of overall vegetation disturbed in the least sensitive areas
 - ii. The 65% undisturbed area must include
 1. Other critical areas and their buffers
 2. A minimum width of undisturbed vegetation to allow continued function as a wildlife corridor (300 feet on large sites)
 3. Protect tree groves and exceptional trees
 2. Mitigate impacts
 - i. Impacts that cannot be avoided must be mitigated through habitat restoration and/or conservation
 - ii. Onsite mitigation is the preferred option, ratios are higher if offsite mitigation is proposed

City review process

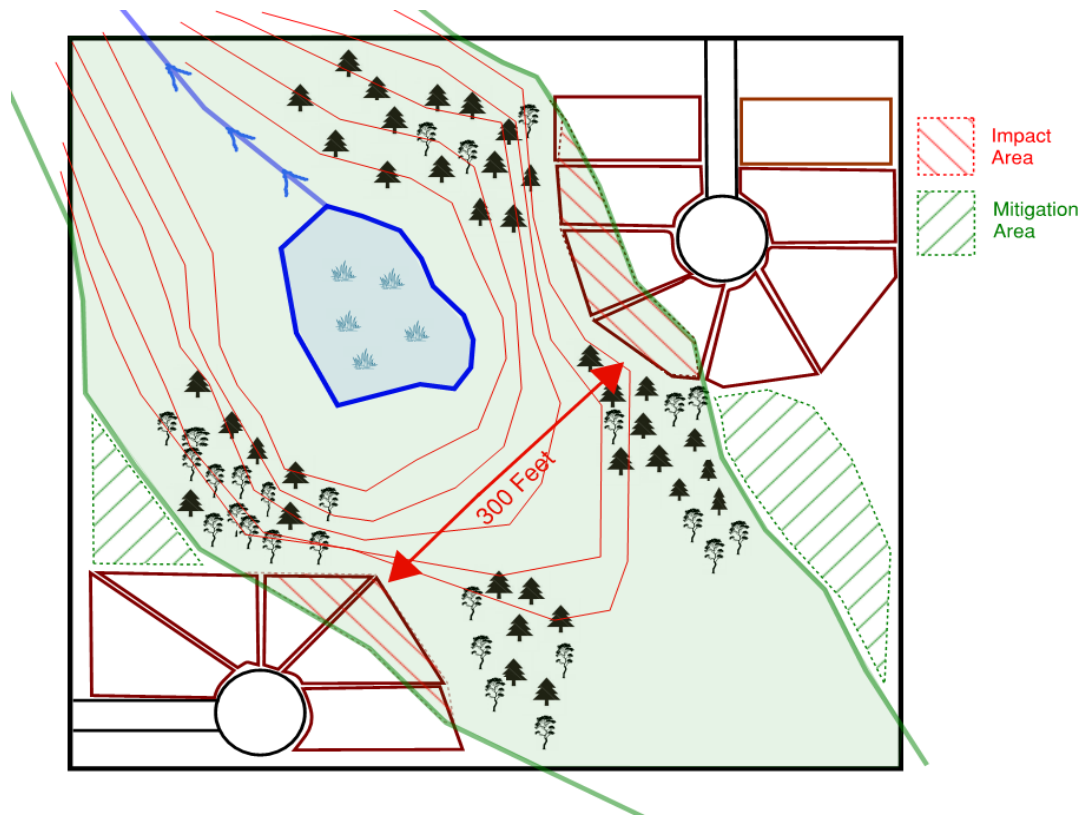
Minor Development Permit: When proposed impacts fit within the above parameters (35% maximum vegetation disturbance, avoid sensitive areas), a simpler permit process can be used to ensure no net loss to the functions and values. When impacts exceed these parameters, a more robust review must be conducted through the Development Permit process.

In all cases, applicants must demonstrate that there will be no net loss to critical areas functions and values.

MINOR DEVELOPMENT PERMIT CRITERIA

<i>Maximum 35% vegetation disturbance</i> <i>(Least sensitive areas of site)</i>		
<i>Minimum 65% undisturbed vegetation</i> <i>(Includes most sensitive areas of site):</i>		
<i>Critical areas & buffers</i>	<i>Minimum wildlife corridor width</i>	<i>Exceptional trees</i>

This illustration shows a scenario including impacts to a Biodiversity Corridor that are limited to the parameters described above, and therefore would be reviewed by the City through a Minor Development Permit process.



Steep Slopes Updates

Changes to TMC 13.11.730 (Exhibit A – *pages 22 to 24*)

The CAPO also includes standards for geohazards, including steep slopes. However, the code does not make it clear that the intent to avoid, minimize and mitigate also applies to geohazard areas as it does in other critical areas. The proposal would update the CAPO Geohazards section to clarify that to accommodate a reasonable use, absent any other critical areas, it may be permissible to mitigate impacts through engineering and design to ensure health and safety.

Changes for Consistency to other TMC sections

To increase consistency and clarity, the proposal includes updates to terminology, current citations and other non-substantive changes throughout the Critical Areas Preservation Ordinance (TMC 13.11), as well the Platting and Subdivisions Chapter (TMC 13.04), the Land Use Permit Procedures Chapter (TMC 13.05), and the Trees and Shrubs – Planting Chapter (TMC 9.19 of the Public Ways Title).

Title 9 – Public Ways, Trees and Shrubs - Planting

See Exhibit A - *page 1*

The current standards prohibit certain species of native trees from being planted in public places. The intent of these provisions is to prevent potential conflicts with fast-growing trees with street infrastructure. However, the standards also limit tree species that are appropriate within open spaces.

The proposal would update TMC 9.19.030 Types of trees prohibited and TMC 9.19.040 Types of trees prohibited to clarify that limitations on certain native tree species within rights-of-way do not apply to open space lands and instead to reference more appropriate and up-to-date tree species guidance.

TMC 13.04 Platting and Subdivisions

See Exhibit A - *page 2*

The proposal updates out-of-date critical areas references in section 13.04.310.

TMC 13.05 Land Use Permit Procedures

See Exhibit A – *pages 2 to 4*

The proposal updates out-of-date critical areas references in section 13.05.010.

3. Scenarios Analysis

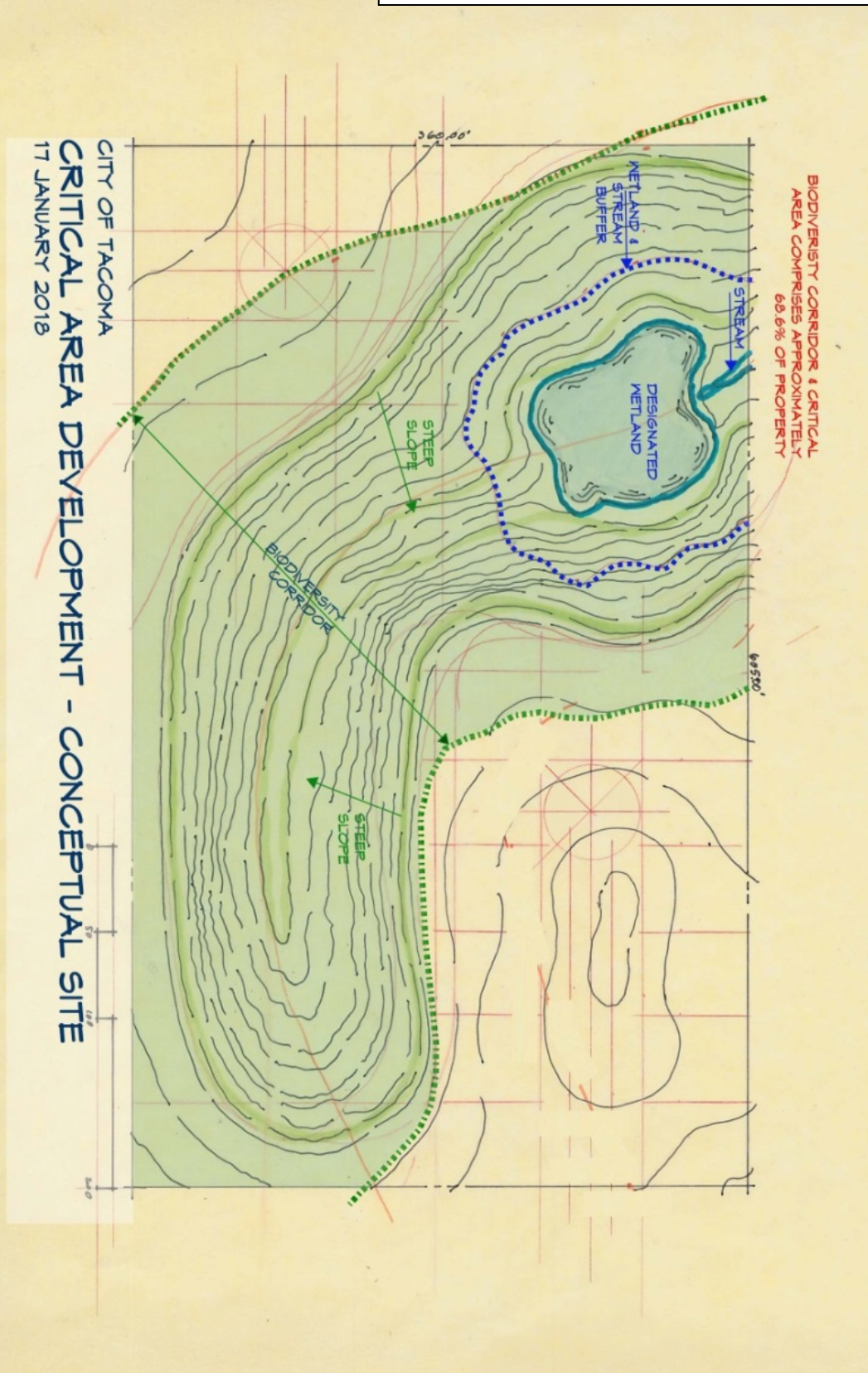
Biodiversity Areas/Corridors – Hypothetical Scenarios

The following illustrations were developed to understand and communicate clearly about how proposed CAPO standards would apply.

For this exercise, the City developed a hypothetical 5-acre site with several types of critical areas, as well as two developable areas outside any critical areas. While the site is hypothetical, it was structured to represent common circumstances for Biodiversity Areas/Corridors in Tacoma.

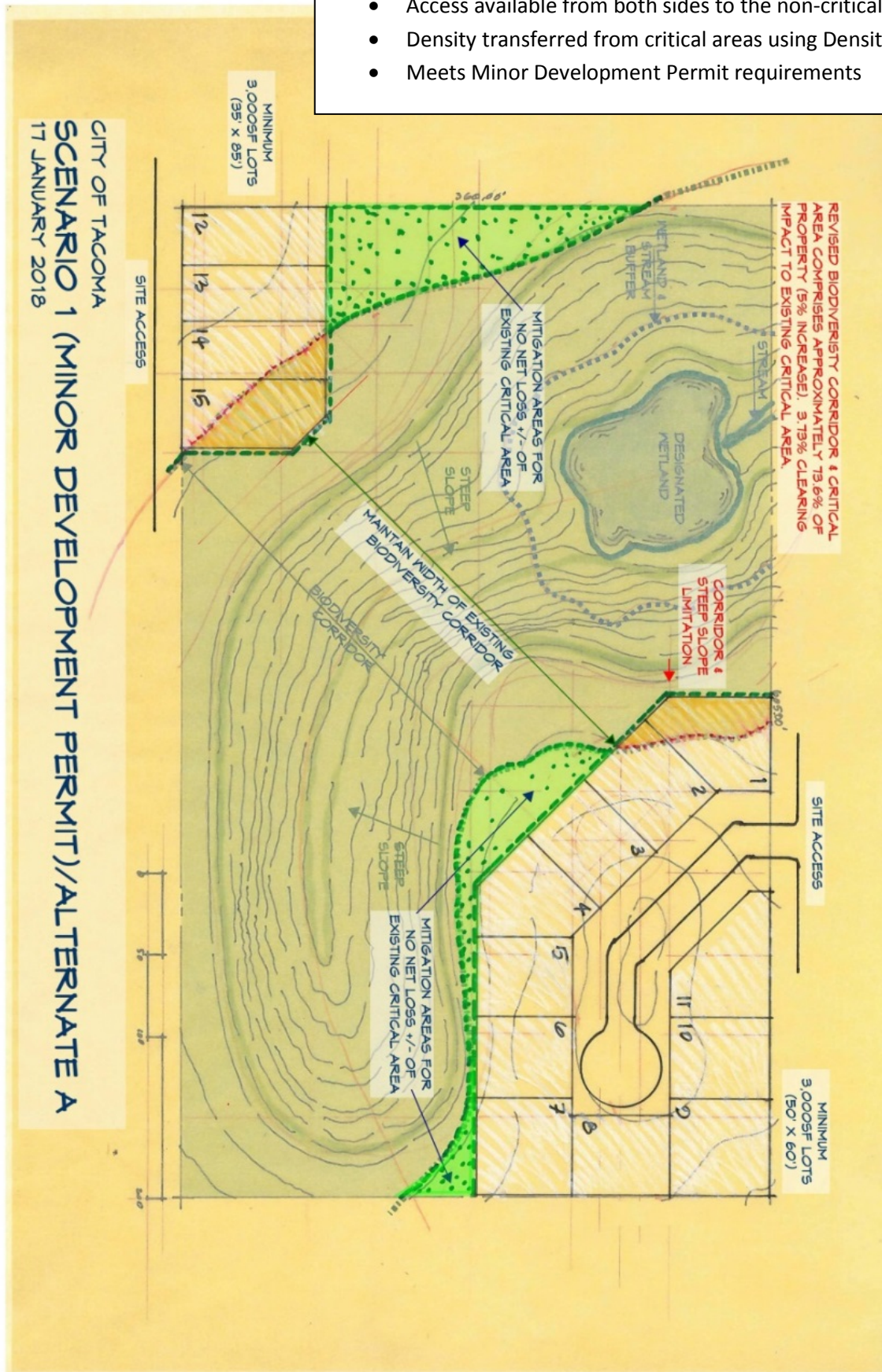
The illustrations are to scale, to more realistically test these concepts. Each scenario shows different site access, since access is a variable that greatly affects development outcomes.

Conceptual 5-acre site including wetlands, streams, steep slopes, Biodiversity Areas/Corridors, and non-critical areas.



Development Scenario 1A:

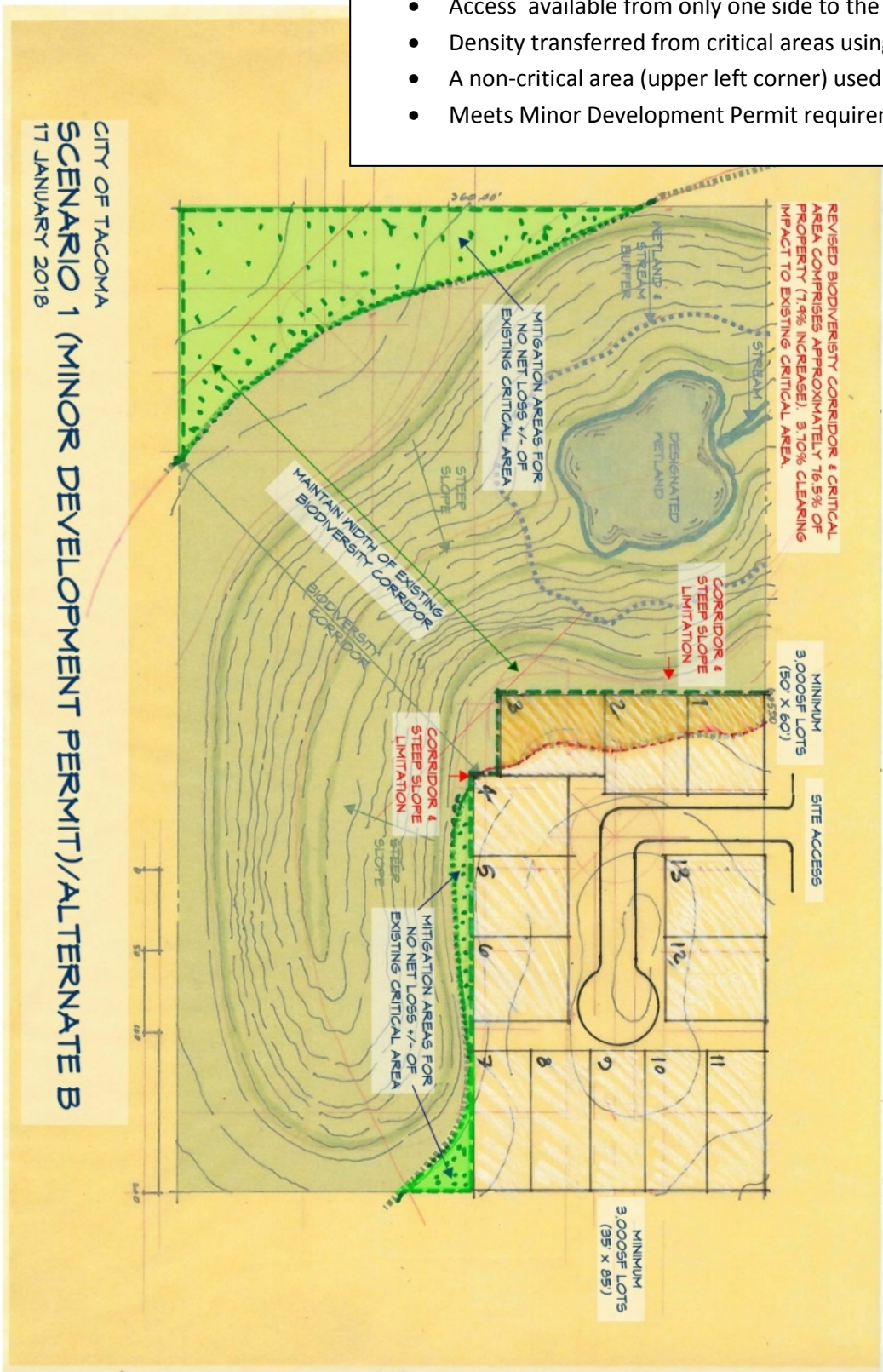
- Access available from both sides to the non-critical areas
- Density transferred from critical areas using Density Credits
- Meets Minor Development Permit requirements



Development Scenario 1B:

- Access available from only one side to the non-critical areas
- Density transferred from critical areas using Density Credits
- A non-critical area (upper left corner) used as a mitigation site
- Meets Minor Development Permit requirements

- Development Scenario 1B:**
- Access available from only one side to the non-critical areas
 - Density transferred from critical areas using Density Credits
 - A non-critical area (upper left corner) used as a mitigation site
 - Meets Minor Development Permit requirements



Development Scenario 2:

- Access limited, requiring a roadway traversing the Biodiversity Corridor
- Density transferred from critical areas using Density Credits
- The proposed road exceeds Minor Development Permit requirements (the minimum Corridor width requirement is not met)
- Review therefore is under the full Development Permit process

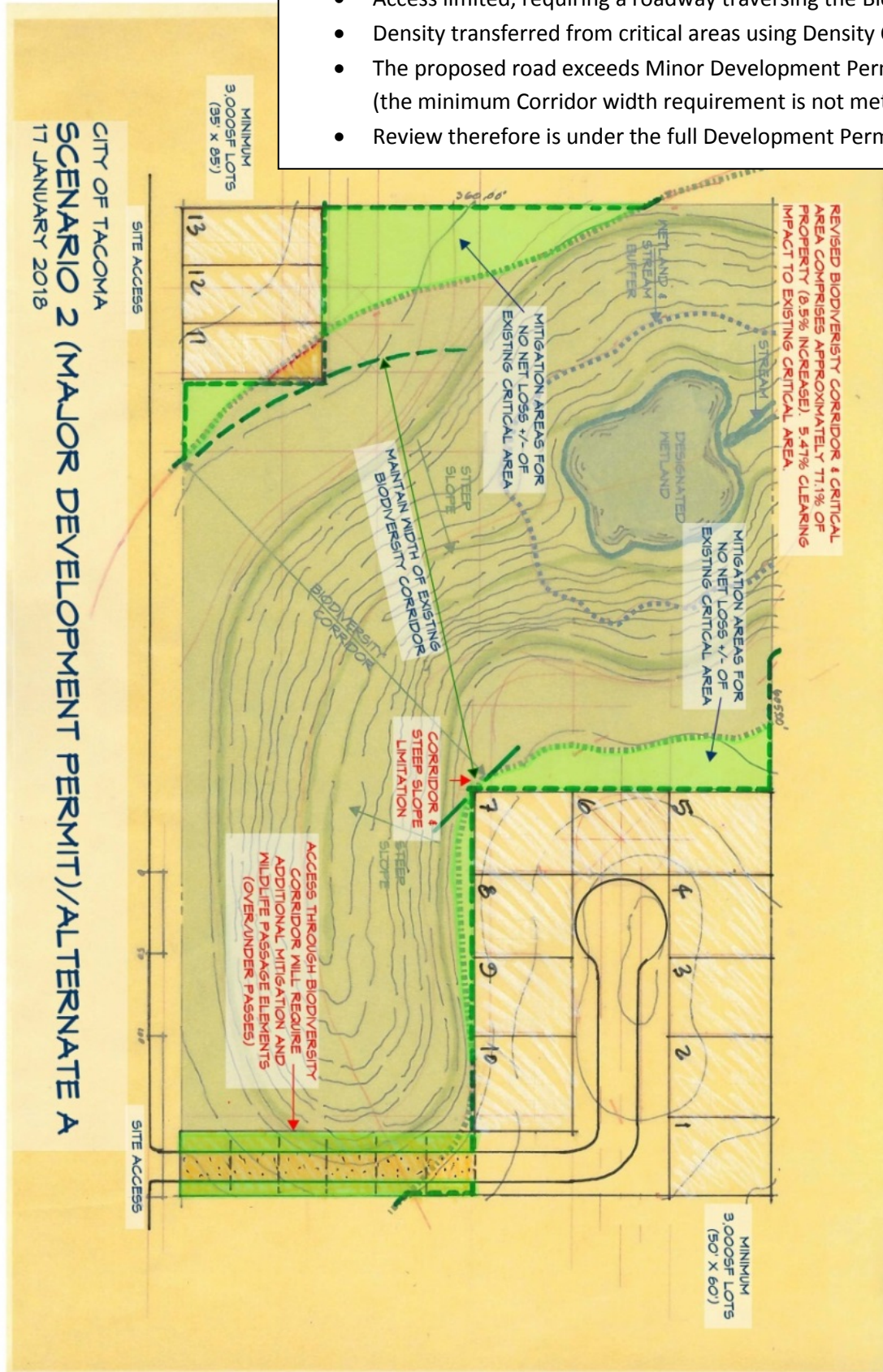




Exhibit C

November 30, 2017

To: Elliott Barnett, Associate Planner

From: Shannon Brenner, Environmental Specialist

Re: Biodiversity Areas and Corridors, and Geological Hazards Best Available Science

The Growth Management Act requires local jurisdictions to classify and identify Fish and Wildlife Conservation Areas (FWHCAs) and they are designated under the Critical Area Preservation Ordinance in the Chapter 13.11 of the Tacoma Municipal Code. FWHCAs include several types of habitat and species including wetlands, streams, and priority habitat and species as defined by the Washington Department of Fish and Wildlife (WDFW).

Biodiversity Areas and Corridors are one of many types of priority habitats identified by WDFW. Large portions of the City's undeveloped and vegetated Open Space is designated as Biodiversity Areas and Corridors.

The WDFW defines Biodiversity Areas as those areas within a city that contain habitat valuable to fish and wildlife. These areas are mostly comprised of native vegetation and relative to the surrounding area the vegetation is diverse with a mosaic of habitats. Corridors are defined as areas of relatively undisturbed land that is not fragmented and connects fish and wildlife habitat conservation areas, other priority habitat, or valuable habitats within a city.

Development in and surrounding these areas negatively impacts native wildlife with loss of habitat and fragmentation of habitat. The areas identified in the City of Tacoma as Biodiversity Areas and Corridors provide wildlife corridors that connect other critical areas or habitats such as wetlands, streams and shorelines. They provide migration corridors allowing wildlife to travel from one habitat to the next in search of food and shelter. It is also recognized by WDFW and the City's Comprehensive Plan Open Space policies that these areas provide important ecological services including wildlife habitat, improved water quality, water storage and availability, pollination, and reduction of carbon dioxide and heat island effects.

The WDFW has developed recommendations for Biodiversity Areas and Corridors for cities and counties to incorporate into their policies and development regulations. These are science based

recommendations that were developed with the assistance of many science team members including experts on birds, mammals, amphibians, and reptiles common in the Puget Lowlands. Currently the City's Critical Areas Preservation Ordinance recognizes WDFW's recommendations for priority habitat and species but has not incorporated any of the recommendations as development standards in the code.

In addition to Biodiversity Areas and Corridors, much of the City's Open Space has Geological Hazards. These are also a critical area identified in the Critical Areas Preservation Ordinance. In general, the focus has been placed on reducing risk through engineering. However, BAS and agency guidance from the Washington Department of Natural Resources and Department of Ecology recommend avoidance and preservation of vegetation as the first preferred consideration.

I reviewed WDFW's recommendations as well as literature cited by WDFW and other jurisdictions in their review of Best Available Science (BAS). The BAS shows that the following objectives are critical to urban habitat health. Other jurisdictions have incorporated these principles into their regulatory schemes for open spaces and critical areas.

- Maintaining connected vegetated corridors is critical to habitat health.
 - Maintaining connected vegetated corridors is critical to habitat because as it becomes fragmented from development barriers to animal movement are created reducing or eliminating the use of the remaining habitat patches.
 - The degree of sensitivity to habitat fragmentation varies from species to species; however overall there is a decline in species diversity. The BAS states that the greatest number of species are supported with large corridors more than 1,000-feet wide consisting of more than 80% forest or native vegetation while the most impact will occur with a corridor of 150-feet or less comprised of 30% or less of forest or native vegetation.
 - Animals often move between different areas to obtain food and shelter. Corridors allow species to freely travel between habitat types maintaining connections between upland habitat and wetlands, streams, and shorelines.
- Vegetated areas are very important to maintain species diversity.
 - In urban environments the remaining habitat and interconnecting corridors are especially valuable to maintain the current species diversity as the ratio of vegetation to developed area is low. Species diversity decreases as vegetation is replaced by buildings and roads.
 - The amount of species that habitat patches can support declines as patches become smaller and less frequent.
 - The quality of the habitat is also important as BAS shows that a vegetated area with a diverse multi-story canopy can support a larger number of species. WDFW recommends preservation of areas that are dominated by native vegetation, forested areas with large trees and snags, and habitats with complex understories. The areas mapped as Biodiversity Areas and Corridors in the City include most of the remaining forested canopy with an understory of native vegetation. Many of the smaller isolated patches of vegetation in the City have a less diverse assemblage of plants often without a forested canopy and a higher

percentage of non-native weedy species that develop monocultures further reducing diversity.

- Development alters the vegetation often replacing relatively natural areas with managed vegetation reducing floral diversity with an accompanied decline in species diversity.
- Complex habitat with forested canopies, shrub layers, ground vegetation, snags, downed woody debris, and leaf litter are needed to maintain species diversity.
- Mature trees in forested areas provide high value habitat that takes a long time to replace. Examples include: perching and nesting by larger avian species such as bald eagles, red-tailed hawks, and peregrine falcons; use by smaller avian species such as the cedar waxwing, Steller's Jay, black-capped chickadee, and nuthatch who store seeds by wedging them into furrows of tree bark for storage.

The focus for Geological Hazardous Areas has often been a reduction of hazards to the public by mitigating the hazard through engineering. However, often the Geological Hazardous Area is located in an Open Space Corridor and may have other critical areas and engineered risk-reduction techniques can result in negative environmental impacts. BAS relevant to Geological Hazardous Areas and agency guidance recommends avoidance first which is also a requirement in the Critical Areas Preservation Ordinance for any critical area. The distinction between avoidance and mitigating hazards through engineering needs to be clarified. The BAS and agency guidance shows the following should be considered when managing development in or near Geological Hazardous Areas.

- The effects of root mass on slope stability have been studied and the tensile strength of the root mass, while it varies for tree species, can be imperative for slope stabilization.
- Layered vegetation and the underlying organic duff reduces the energy of rain and attenuate flows thereby reducing erosion.
- Vegetation removes water from soils enhancing the stability of slopes by reducing the volume of water in the soil mantle.
- Landslides in developed areas are often influenced by human activities. Common human activities that can contribute to landslides include directing runoff onto steep slopes, failure of drainage systems, excavation, placement of fill, and retaining wall failures.
- Removal of vegetation can result in rapid runoff and saturation of surficial soils leading to landslides.
- The majority of landslides in the Puget Lowlands are shallow landslides and debris avalanches triggered by heavy rainstorms. These shallow landslides can cause significant property damage and have resulted in loss of life.



Open Space Corridors Project

Exhibit D: Map Folio

Map List:

High Probability Biodiversity Areas/Corridors

Lands Designated for Parks and Open Space

Open Space: Environmental Assets

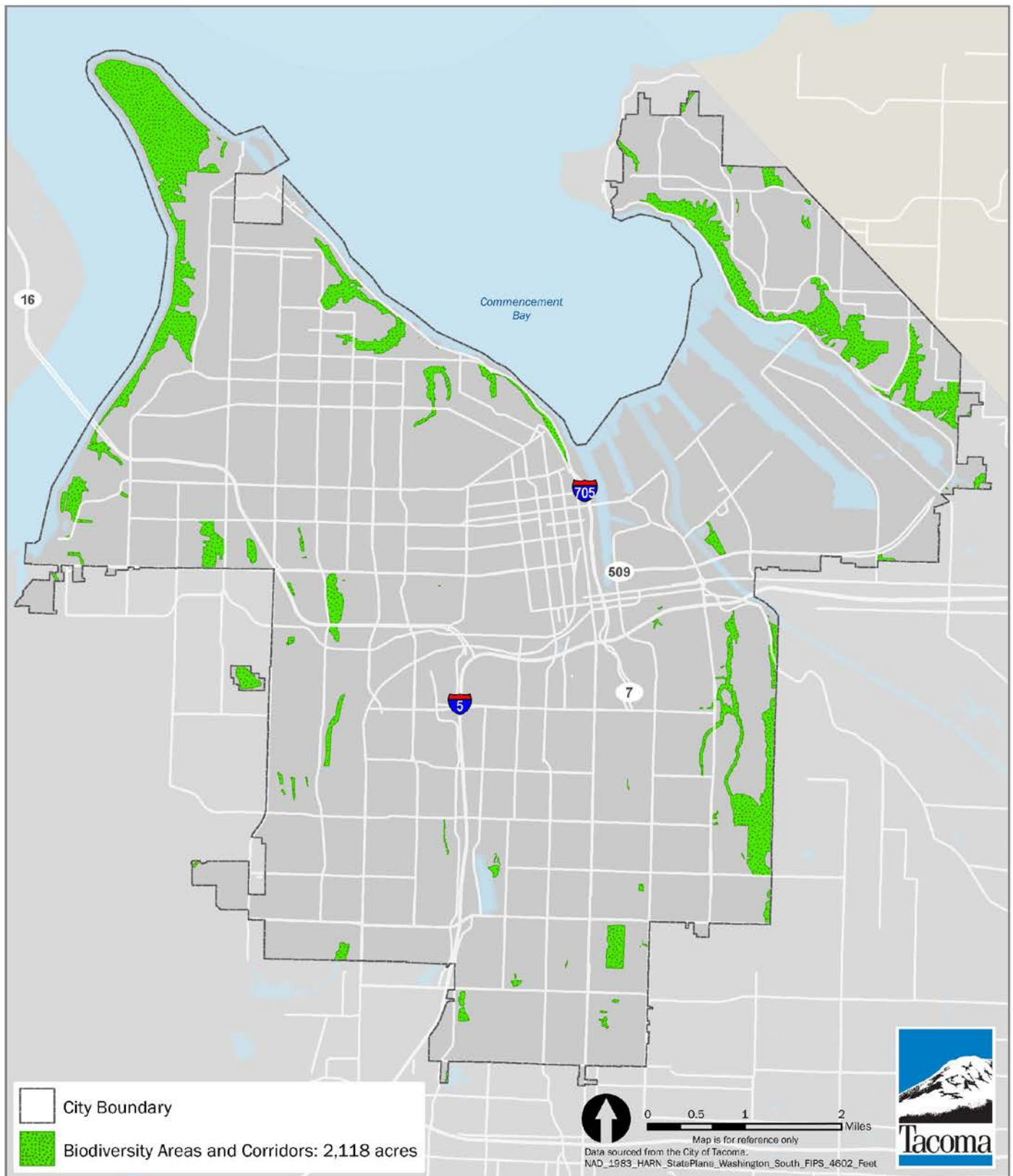
Open Space: Steep Slopes

Parks and Recreation System

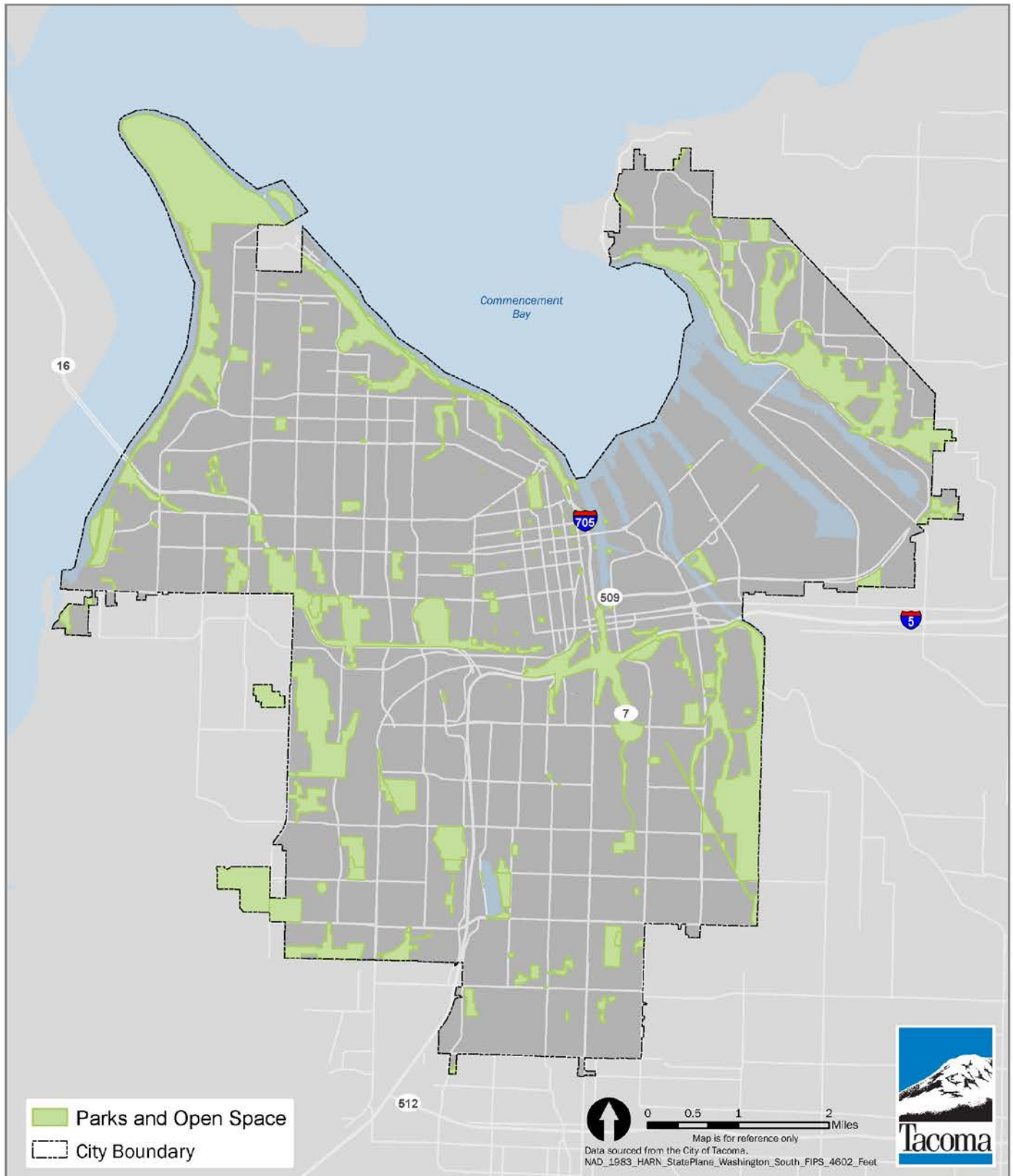
Open Space: Public, Private, Tribal, and Right-of-way

Open Space: Zoning Districts

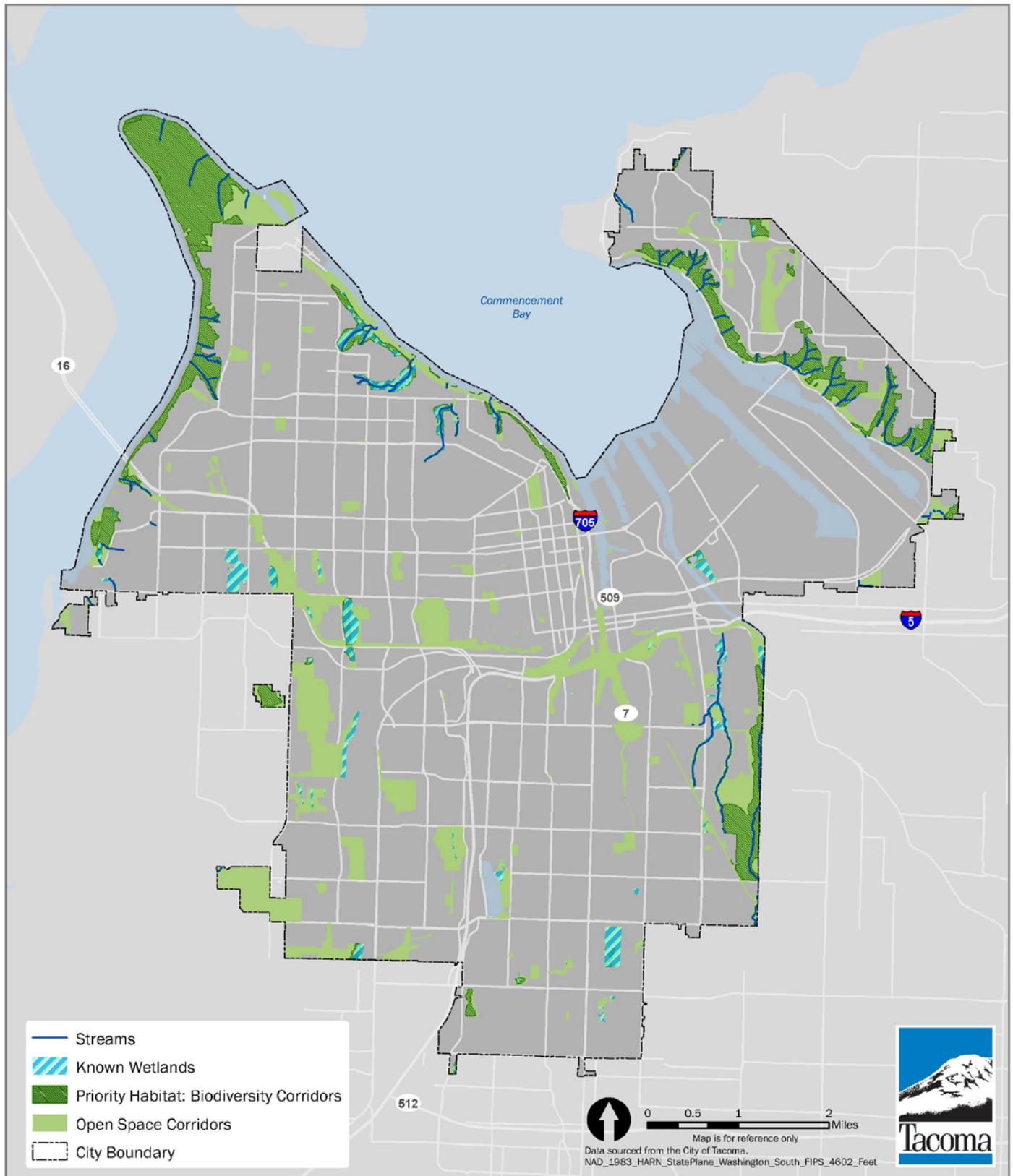
High Probability Biodiversity Areas/Corridors



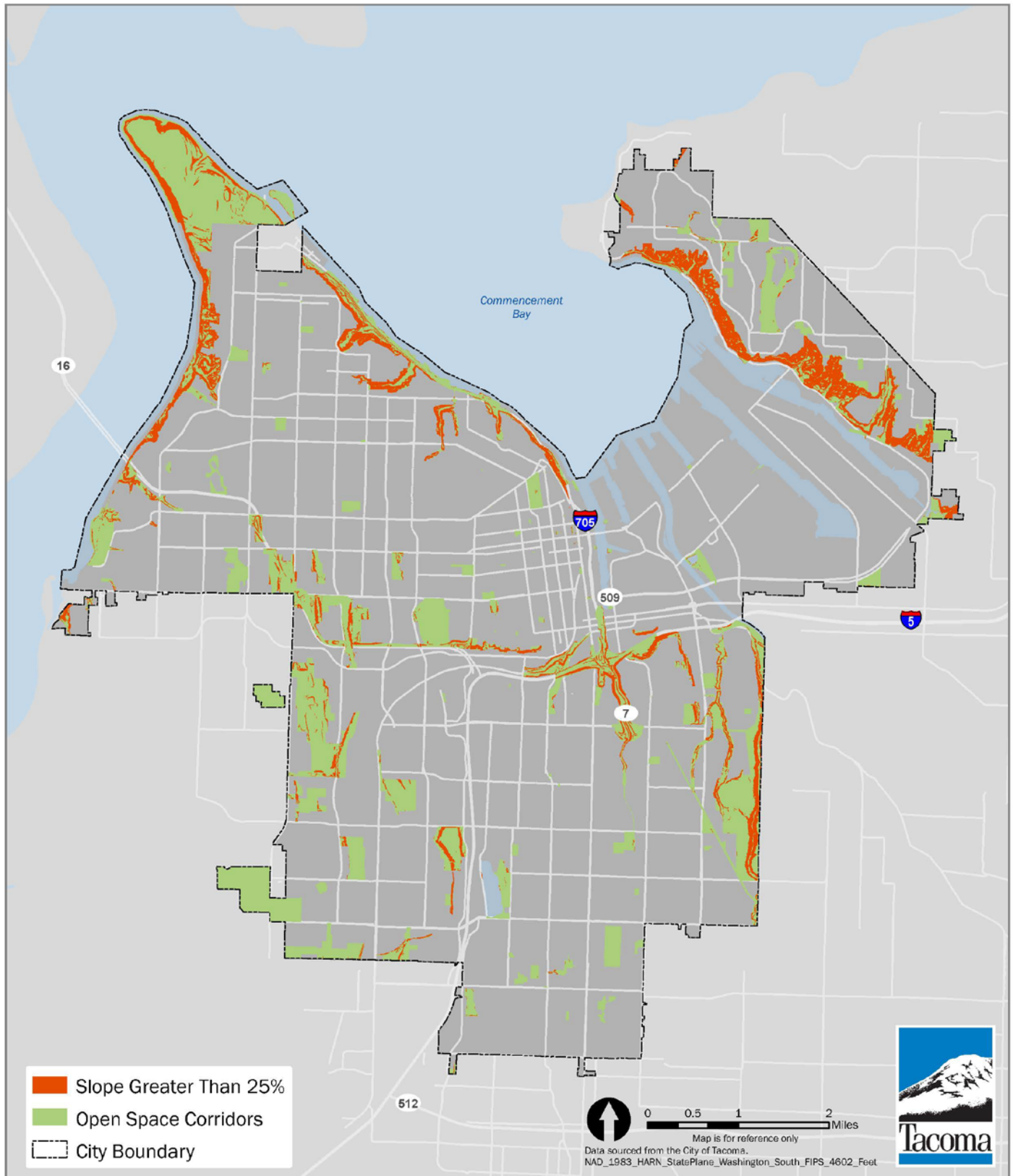
Lands Designated for Parks and Open Space



Open Space: Environmental Assets



Open Space: Steep Slopes



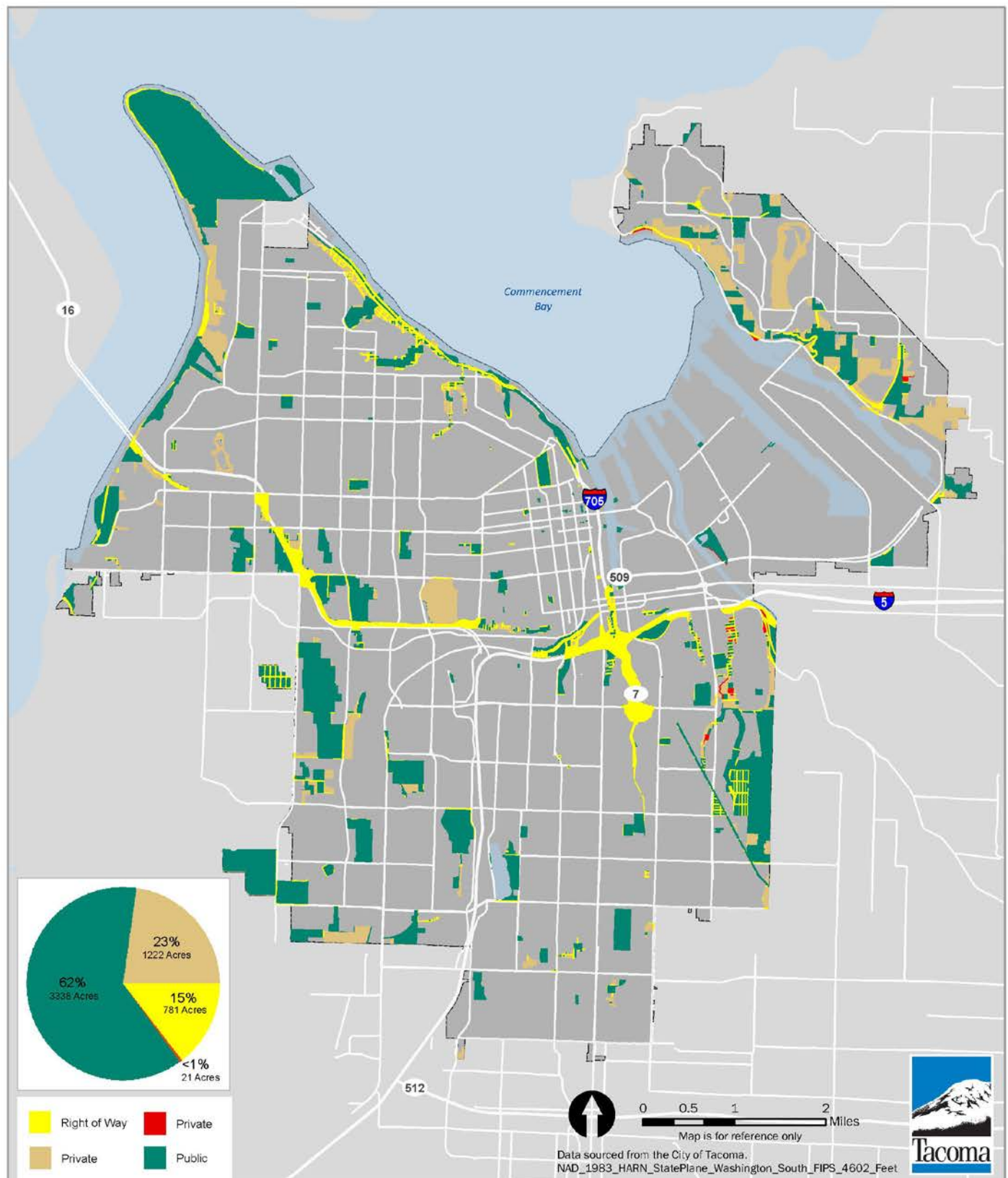
Parks + Recreation

Jan 2016



Exhibit D Code Approach Overview

Open Space: Public, Private, Tribal, and ROW



Open Space: Zoning Districts

