

# Draft Habitat Inventory Report

**Prepared for:** 



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#### **Executive Summary**

This document provides an overview of the methods and findings of the Washington County (the County) limited Goal 5 Inventory update for the Urban Unincorporated Area (UUA); that area within the Metro regional Urban Growth Boundary that is outside incorporated cities. Goal 5 Resources that were evaluated include:

- County Wildlife Habitat
- County Water Areas and Wetlands
- County Water Areas and Wetlands and Fish and Wildlife Habitat
- Metro Riparian Wildlife Habitat Classes I and II
- Metro Upland Wildlife Habitat Classes A and B

The primary purpose of the inventory work was to update mapping and the determination of significance (Oregon Administrative Rule 660-023-0030(4)) for the County's Significant Natural Resource (SNR) Wildlife Habitat, using existing Metro and Washington County inventories. A secondary purpose was to consolidate and adjust the mapped boundaries of the County's water-related resource areas for accuracy and qualitative classification of the Riparian Wildlife Habitat to align with Metro's SNR Riparian Wildlife Habitat Classes I and II.

The overall process consisted of incorporating Metro's habitat mapping (specifically Upland Wildlife Habitat Classes A and B, and Riparian Wildlife Habitat Classes I and II) into the County's wildlife and water-related resource mapping. The goal was to understand what resource sites were still significant and reclassify the remaining significant resources in an updated county Goal 5 Inventory. The process did not result in additional mapped resource areas, but some resource boundaries were refined and adjusted based on the methodology described in the body of this report and summarized below.

The following tables provide the acreage of habitat mapped by the County and Metro on existing maps as of the date of this report, and prior to the Goal 5 update. The UUA study area totals approximately 30,100 acres.

Pre-Update Washington County Habitat Acreage in UUA<sup>1</sup>

Habitat Type	Acres
Water Areas and Wetlands	910
Water Areas and Wetlands, and Fish and Wildlife Habitat	1,200
Wildlife Habitat	1,374
Total	3,484

<sup>&</sup>lt;sup>1</sup> NOTE: There is significant overlap between the existing (pre-update) County and Metro inventories. In addition, Metro's Riparian I and II are included by reference in the Washington County Inventory

#### Pre-Update Metro Habitat Acreage in UUA

Habitat Type	Acres
Riparian Class I	2,553
Riparian Class II	1,132
Total Riparian	3,685
Upland Class A	1,149
Upland Class B	1,342
Total Upland	2,491
Total All	6,176

The update of the County's Goal 5 Inventory used Geographic Information System (GIS) mapping technology. The analysis relied on existing geospatial data, including the Washington County and Metro Inventory map layers, with the following types of GIS data used to inform the status of the County and Metro data: aerial photography, topographical data, and Metro Regional Land Information System (RLIS) data that identified developed lands, tax lots, and parks.

The update took a stepwise approach, including the following steps:

- A. Define the Map Refinement Area and Alternative Inventory Approach Areas
- B. Consolidate Existing County and Metro Habitat Mapping within the Map Refinement Area
- C. Review and Adjust Consolidated Mapping for Significance within the Map Refinement Area
- D. Conduct Manual Review and Data Cleanup within the Map Refinement Area

The limited Goal 5 update covers the Washington County Urban Unincorporated Area (UUA) circa 2024, which is referred to as the study area for the project. The "Map Refinement Area" is a subset of the study area, where the detailed map update methodology described in this report was applied. It does not include certain areas where more recent Goal 5 inventory work was conducted, including new community plan areas planned by the County and new UGB areas where Goal 5 inventories were completed as required by Metro Urban Growth Management Functional Plan Title 11 (Planning for New Urban Areas). In some instances, the habitat mapping from these plans was fully incorporated into the Goal 5 update and in other instances the Map Refinement Area methods described further in this report were applied but with modifications.

The Goal 5 update included public review and the opportunity for landowners to submit questions and map revision requests related to their specific property. This further focused the review of map revisions and determination of significance on these properties.

#### The following table provides the Goal 5 update results:

#### Goal 5 Updated Significant Habitat Acreage in UUA

Habitat Type	Acres
Riparian Wildlife Habitat Class I	2,174
Riparian Wildlife Habitat Class II	780
Riparian Wildlife Habitat (no classification)*	218
Total Riparian Wildlife Habitat	3,173
Upland Class A (includes overlap with County Wildlife Habitat)	539
Upland Class B (includes overlap with County Wildlife Habitat)	482
County Only Wildlife Habitat	73
Total Upland Wildlife Habitat	1,094
Total All	4,267

<sup>\*</sup>Several of the Alternative Inventory Approach Areas relied on habitat mapping provided by the local jurisdiction, which did not divide Riparian Wildlife Habitat into Class I or II.

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#### I. Introduction

This document provides an overview of the methods and findings of the Washington County (the County) limited Goal 5 Inventory update for the Urban Unincorporated Area (UUA); that area within the Metro regional Urban Growth Boundary that is outside incorporated cities. Goal 5 Resources that were evaluated include:

- County Wildlife Habitat
- County Water Areas and Wetlands
- County Water Areas and Wetlands and Fish and Wildlife Habitat
- Metro Riparian Wildlife Habitat Classes I and II
- Metro Upland Wildlife Habitat Classes A and B

The primary purpose of the inventory work was to update mapping and the determination of significance (Oregon Administrative Rule 660-023-0030(4)) for the County's Significant Natural Resource (SNR) Wildlife Habitat, using existing Metro and Washington County inventories. Another task in the inventory work was to consolidate and adjust the mapped boundaries of the County's water-related resource areas for accuracy and qualitative classification of the Riparian Wildlife Habitat to align with Metro's SNR Riparian Wildlife Habitat Classes I and II.

The overall process consisted of incorporating Metro's habitat mapping (specifically Upland Wildlife Habitat Classes A and B, and Riparian Wildlife Habitat Classes I and II) into the County's wildlife and water-related resource mapping. Review of the wildlife/upland habitats were the first priority, and the water-related riparian resources were second. The goal was to understand what resource sites were still significant and reclassify the remaining significant resources in an updated county Goal 5 Inventory. Combining these distinct but overlapping inventories resulted in a consolidated Washington County Goal 5 Inventory update. The process did not result in additional mapped resource areas, but some resource boundaries were refined and adjusted based on the methodology, professional judgment and review.

### II. Natural Resource Categories

This section describes the Goal 5 natural resource categories identified in the adopted County Goal 5 Inventory and the adopted Metro Regionally Significant Fish and Wildlife Habitat Inventory to better understand areas of overlap and differences between the two inventories. This information about natural resource categories also supports an understanding of the mapping update methods described in Section III.

The County's Goal 5 Inventory of natural resources is included in its Comprehensive Plan.<sup>2</sup> The SNRs determined to be significant were sorted into categories based on the following classifications, as stated in Community Development Code (CDC) Section 422:

• Water Areas and Wetlands. 100-year floodplain, drainage hazard areas and ponds, except those already developed.

<sup>&</sup>lt;sup>2</sup> For the urban unincorporated area, these natural resources are primarily mapped in the community plans, with future development areas mapped in the Comprehensive Framework Plan for the Urban Area Policy 41, Map B. For the rural area these natural resources are mapped in the Rural/Natural Resource Plan.

- Water Areas and Wetlands and Fish and Wildlife Habitat. Water areas and wetlands that are also fish and wildlife habitat.
- Wildlife Habitat. Sensitive habitats identified by the Oregon Department of Fish and Wildlife (ODFW) and the Audubon Society Urban Wildlife Habitat Map, and forested areas coincidental with water areas and wetlands.

The Regionally Significant Fish and Wildlife Habitat Inventory Map identifies Metro's natural resources, and Metro's Urban Growth Management Functional Plan, Title 13 categorizes them by both habitat type and value as follows:

- Riparian Wildlife Habitat Class I (high value), Class II (medium value)
- Upland Wildlife Habitat Class A (high value), Class B (medium value)

Metro's description of the regional habitat types being reviewed as part of this project are described below and were based on a complex GIS based scoring model. Full documentation of Metro's GIS model is not readily available, but a summary document provides an overview of the Metro Title 13 mapping (see Appendix A, Hennings 2009). For Upland Wildlife Habitat, the summary document refers to large and medium-sized forest patches but does not explicitly define these. Two acres is generally used as the lower size range for a mapped habitat patch, although there are exceptions for smaller-sized patches that are habitats of concern (HOCs), as defined below.

- Riparian Wildlife Habitat Class I: Includes rivers, streams, wetlands, undeveloped floodplains, forest canopy within 100 feet of streams (200 feet if steeply sloped). Provides three to five of the following primary functions:
  - Microclimate and shade
  - Streamflow moderation and water storage
  - o Bank stabilization, sediment, and pollution control
  - Large wood and channel dynamics
  - Organic material sources
- Riparian Wildlife Habitat Class II: Includes rivers, streams, a 50-foot area along developed streams, forest canopy or low structure [vegetation] within 200 feet of streams, and portions of undeveloped floodplain beyond 300 feet of streams. Includes wildlife habitat where it coincides with the medium value riparian habitat. Provides one to two primary functions, or one primary plus one or more secondary functions. Secondary functions are not defined. Class II can be elevated to Class I if it contains an HOC.
- Upland Wildlife Habitat Class A: Includes upland portions of large forest patches that the GIS
  model scored as high value (see Appendix A for additional detail). Upland refers to areas
  adjacent to riparian areas or large patches of habitat not connected to riparian areas. Also, may
  contain areas providing secondary functions for riparian habitat and HOCs outside of riparian
  habitat.
- **Upland Wildlife Habitat Class B:** Primarily includes upland portions of medium-sized forest patches that the GIS model scored as moderate value (see Appendix A for additional detail).
- Habitats of Concern: HOCs are not a distinct habitat class within Metro's Title 13 mapping but
  are instead types of habitats that when identified are incorporated into either the Riparian
  Wildlife Habitat or Upland Wildlife Habitat classes. HOCs are unique or unusually important

wildlife habitats and are identified based on site-specific information. They can be smaller than two acres and were incorporated into Metro's inventory if they fell into one or more of the following categories:

- Any patch specifically identified as a Priority Conservation Habitat by ODFW, the U.S.
  Fish and Wildlife Service (USFWS), or other agencies or local wildlife experts. Such
  habitat types included Oregon white oak savannas and woodlands, native prairie
  grasslands, wetlands, and bottomland hardwood forest.
- Any patch of natural land cover identified by ODFW, USFWS, or other agencies or local wildlife experts as riverine island or delta important to wildlife.
- Specifically delineated habitat areas that provide life-history requirements of sensitive, threatened, or endangered wildlife species or great blue heron rookeries; habitats that support at-risk plants; or habitats that provide unusually important wildlife functions, such as major wildlife crossings/pathways or a key migratory pathway, such as an elk migratory corridor.

Although the County's Goal 5 Inventory and Metro's inventory have many similar resource sites, for a variety of reasons, they also have some differences. Table II-1 provides an overview of those similarities and differences.

Table II-1. Generalized relationships between Washington County and Metro Goal 5 inventoried natural resources included in this update process

County Natural Resources	Metro Title 13 Regional Habitat Resources	Comparison Notes
Water Areas and Wetlands	Riparian Wildlife Habitat (Classes I and II)	County mapping and Metro's high and medium value Riparian Wildlife Habitat are similar in nature and generally refer to the same types of resources; however, because the County's Goal 5 Inventory is based on floodplain mapping, it does not extend into areas with steep slopes.
Water Areas and Wetlands and Fish and Wildlife Habitat	Riparian Wildlife Habitat (Classes I and II)	County mapping and Metro habitat types are similar in nature and generally refer to the same types of resources. Areas that show the County's Water Areas and Wetlands and Fish and Wildlife Habitat extending beyond Metro's Class I or Class II Riparian Wildlife Habitat areas may be the result of mapping errors due to scale or to the mapping technology available at the time of the County inventory.

County Natural Resources	Metro Title 13 Regional Habitat Resources	Comparison Notes
Wildlife Habitat	Upland Wildlife Habitat (Classes A and B)	County Wildlife Habitat mapping typically focuses on upland habitats, but it can also contain riparian-type habitats due to limits in available data at the time of the inventory. The County mapping contrasts with Metro's Upland Wildlife Habitat mapping, which focuses solely on habitat upland from the riparian areas. Therefore, areas of county-mapped Wildlife Habitat that overlap with Metro Riparian Wildlife Habitat mapping have been classified as updated Washington County Riparian Wildlife Habitat as part of this update.

#### III. Methods

The update of the County's Goal 5 Inventory used GIS mapping technology. The analysis relied on existing geospatial data, including the Washington County and Metro Inventory map layers, with the following types of GIS data used to inform the status of the County and Metro data: aerial photography, topographical data, and Metro Regional Land Information System (RLIS) data that identifies developed lands, tax lots, and parks.

This section presents the analysis methods that were used in a stepwise approach. Each step is represented by a numbered subsection heading below, and each subsection describes the basic methodology or guiding principles used to carry out the analysis. The result is a consolidated and updated Washington County Goal 5 Inventory for the Washington County UUA. The Goal 5 Inventory update process also developed several intermediate map layers that supported inventory review by the County and interested stakeholders at different points in the process.

The following analysis steps are described in the subsections below:

- A. Define the Map Refinement Area and Alternative Inventory Approach Areas
- B. Consolidate Existing County and Metro Habitat Mapping within the Map Refinement Area
- C. Review and Adjust Consolidated Mapping for Significance within the Map Refinement Area
- D. Conduct Manual Review and Data Cleanup within the Map Refinement Area

#### A. Define the Map Refinement Area and Alternative Inventory Approach Areas

The limited Goal 5 update covers the Washington County UUA circa 2024, which is referred to as the study area for the project. The "Map Refinement Area" is a subset of the study area, where the detailed map update methodology described in this report was applied. It does not include certain areas where more recent Goal 5 inventory work was conducted, including new community plan areas planned by the County and new UGB areas where Goal 5 inventories were completed as required by Metro Functional Plan Title 11 (Planning for New Urban Areas). In some instances, the habitat mapping from these plans was fully incorporated into the Goal 5 update and in other instances the Map Refinement Area methods

described further in this report were applied but with modifications. Table II-2 summarizes which areas received either of these alternative inventory approaches.

To support the analysis within the Map Refinement Area, the analysis also reviewed areas adjacent to the Map Refinement Area. This was done to assess connectivity and size of habitats within the Map Refinement Area as they relate to those in adjacent areas. The analysis used both automated GIS methods and manual review of GIS data. Using both automated and manual methods helped avoid potential removal of what may appear to be small, isolated habitat patches along the inner edge of the overall study area that are connected to larger habitats outside the Map Refinement Area. Section III.C below includes a definition of "small, isolated habitat patches."

Table II-2. Areas of the UUA Where an Alternative Inventory Approach Was Applied

Community Plan	Plan Jurisdiction	Inventory resources	Approach to incorporating into County Goal 5 Update
Basalt Creek- joint planning effort with cities of Tualatin and	Tualatin (adopted 2018)	Metro Regionally Significant Fish and Wildlife Habitat for <u>Riparian Wildlife Habitat</u> <u>only</u>	Map Refinement Area methods applied to Riparian Wildlife Habitat per Metro Title 13 of the Urban Growth Management Functional Plan requirements. However, no mapping of Upland Wildlife Habitat (see Appendix D, letter from Tualatin).
Wilsonville	Wilsonville (adopted 2018)	Metro Regionally Significant F/W Habitat for Riparian and Upland Wildlife Habitat Inventory	Map Refinement Area methods applied to Riparian and Upland Wildlife Habitat.
Bonny Slope West	Washington County (adopted 2015)	Washington County Goal 5 Inventory process	Bonny Slope West data used for County Goal 5 update.
Cooper Mountain	Beaverton (to be adopted 2024)	Inventory completed in 2019 applying Metro Regionally Significant Fish and Wildlife Habitat categories and methodology, LWI inventory prepared and to be adopted Fall 2024	Map Refinement Area methods generally applied; however, utilized DSL reviewed draft LWI data to inform Riparian Wildlife Habitat mapping.
Jackson East	Hillsboro (adopted 2022)	City of Hillsboro Goal 5 inventory process	Jackson East data used for County Goal 5 update.
North Bethany	Washington County (adopted 2010)	Washington County Goal 5 Inventory process	North Bethany data used for County Goal 5 update.

Community Plan	Plan Jurisdiction	Inventory resources	Approach to incorporating into County Goal 5 Update
South Hillsboro	Hillsboro (adopted 2014)	City of Hillsboro Goal 5 inventory adopted 2001	South Hillsboro data used for County Goal 5 update.
Witch Hazel Village South	Hillsboro (adopted 2018)	City of Hillsboro Goal 5 inventory process	Witch Hazel Village South data used for County Goal 5 update.

#### B. Consolidate Existing Washington County and Metro Habitat Mapping

Washington County Goal 5 habitat mapping layers (County 2023) were combined with Metro's Title 13 habitat mapping layers (Metro 2023a). Each entity uses different naming conventions and classifications, as noted in Section II, above. The goal of this effort is to create a clean set of mapped habitat areas with a single naming convention. Table II-3 provides the general relationship between Washington County habitat types and Metro habitat types, along with the proposed naming conventions for the reclassification of county natural resources in the Washington County Goal 5 Inventory update.

Table II-3. Metro and Washington County habitat resources overlap conditions and proposed natural resource classifications for the County's Goal 5 Inventory

Metro Habitat and County Habitat Overlap Conditions	Proposed Classification of Updated County Goal 5 Inventory	Rationale
Metro Riparian Wildlife Habitat Classes I and II, no overlap with any county SNR category	Riparian Wildlife Habitat Class I or Class II	Metro Riparian Wildlife Habitat mapping is more accurate than the County's water-related SNRs and the County's wildlife habitat; therefore, Metro's boundaries are used even if no Washington County habitat has been mapped.
Metro Riparian Wildlife Habitat Classes I and II overlap with any county SNR category	Riparian Wildlife Habitat Class I or Class II	Metro's Riparian Wildlife Habitat mapping is more accurate than the County's water-related SNRs and the County's wildlife habitat; therefore, Washington County SNRs are reclassified as Riparian Habitat Class I or Class II and Metro's boundaries are used.
Metro Upland Wildlife Habitat Classes A and B overlap with any county category	Upland Wildlife Habitat Class A or Class B	Metro Upland Wildlife Habitat Classes A and B include a qualitative assessment of the upland habitat, whereas the County's wildlife habitat does not. Also, the Metro inventory is more recent and accurate. Therefore, Washington County SNRs are reclassified as Upland Wildlife Habitat Class A or B and Metro's boundaries are used.
Washington County Wildlife Habitat does not overlap with any Metro category	Upland Wildlife Habitat – County Only	The County's wildlife habitat mapping typically focuses on upland habitat and may also contain riparian or isolated forested habitats. In contrast, Metro's upland wildlife habitat mapping focuses solely on upland habitat, either as upland adjacent to riparian areas (out to 300 feet from the

Metro Habitat and County Habitat Overlap Conditions	Proposed Classification of Updated County Goal 5 Inventory	Rationale
		water source) or upland habitat patches typically greater than 2 acres regardless of proximity to a water source. County-mapped wildlife habitat that does not overlap with any Metro category was evaluated through the adjustment analysis described in Section III.C.
Washington County Water Areas and Wetlands, and Water Areas and Wetlands and Fish and Wildlife Habitat do not overlap with any Metro habitat category	Removed from Inventory update	Metro's more recent riparian habitat inventory is considered more accurate than the County's inventoried water-related habitat, with one exception: the southwest corner of the King City area, which was beyond the limits of Metro's inventory. This area utilized the County's mapping as a starting point and was adjusted based on aerial photo review.

#### C. Review and Adjust Consolidated Mapping for Significance

A great deal of development has occurred since the original Washington County Goal 5 and Metro Title 13 habitat mapping efforts took place. As previously noted, the Metro mapping is more up-to-date than the County's mapping, but more than 20 years have passed since the Metro mapping was done. Therefore, the consolidated habitat mapping from the previously described steps has been evaluated to remove areas of mapped habitat that have since been developed and small patches of habitat that are no longer considered significant. (Note regarding terminology. Wording such as "removed" or "removed from mapping" refers to the habitat no longer being considered significant and therefore not being included in the updated County Goal 5 map. Similarly, wording such as "maintained" refers to habitat that was still considered significant and therefore is still included in the County Goal 5 map.)

Updating the consolidated habitat mapping adhered to the following principles:

#### 1. Riparian Wildlife Habitat

- (A) Residential parcels less than 10,000 square feet with at least one mapped structure (per Metro RLIS data (Metro 2023b)) were removed from consideration as significant since they were considered developed. An exception was if there was a known mapped protection (see Section III.C.3. Considerations for Riparian Wildlife Habitat and Upland Wildlife Habitat) or if the removal resulted in no remaining riparian corridor along a stream mapped by ODFW as providing habitat for native fish (e.g., resident cutthroat trout, steelhead trout). Screening for ODFW native fish-bearing streams (ODFW 2023a) was conducted during the manual cleanup phase described in Step III.C.
- (B) Narrow bands of Riparian Habitat mapped on residential lots greater than 10,000 square feet were removed if there was mapped adjacent protected area since the riparian habitat

- was considered to be contained in the protected area. This removal occurred as part of the manual cleanup phase described in Step III.D.
- (C) Areas of multifamily or nonresidential parcels with paving or structures were considered developed and therefore removed from consideration as significant. Narrow slivers of mapped Riparian Habitat on such parcels were also removed if there was an adjacent protected tract. These removals occurred as part of the manual cleanup phase described in Step III.D.
- (D) Riparian areas along known piped creek sections were removed since resources no longer remain in these piped areas. These removals were specific to areas where creeks were piped below developed areas but did not include roadway culverts if an open channel and/or wetland was likely present on both sides of the culvert. This analysis used Clean Water Services' GIS streams layer (CWS 2023), which identifies piped and open creek sections, and an aerial photo review.
- (E) Riparian Habitat in agricultural fields, including plowed fields, was not adjusted unless there was clearly no sign of a stream (including ditched streams) or potential wetlands. Although these areas may not provide high quality habitat in their current condition, if wetlands and streams are present, they may be regulated at the federal, state, and/or local level and protected and/or improved as part of the development permitting process, based on a site-specific analysis.
- (F) Mapped Riparian habitat areas along developed right of way (ROW).
  - (1) Riparian areas intersecting ROW were typically not removed, because such areas typically occur at creek crossings. Although no riparian vegetation is present at such locations, the crossing provides important passage for aquatic and often terrestrial wildlife and is therefore considered significant.
  - (2) Riparian areas along ROW were removed, however, primarily during the manual review noted in Step III.D below, where ROW ran roughly parallel to a riparian area and therefore the mapped habitat along the developed roadway clearly provided no habitat function.

#### 2. Upland Wildlife Habitat

- (A) Residential parcels less than 0.5 acre with at least one visible structure (per Metro RLIS developed lands data) or undeveloped parcels recently platted where it is presumed they went through development review were removed from the County's updated inventory. Parcels presumed to have gone through development review were based on review of Clean Water Services GIS data of development approved post-1995. An exception was if there was a known mapped protection (see item C. Considerations for Riparian and Upland Wildlife Habitats).
- (B) Sites with mapped Wildlife Habitat on multifamily and nonresidential parcels with paving or structures were removed from consideration as significant.
- (C) Small, isolated upland habitat patches were removed from the habitat mapping. For this effort, small, isolated upland habitat patches are defined as follows:
  - (1) Patch is less than 2 acres and is not connected to other habitats within or adjacent to the Map Refinement Area.

- (2) Patches less than 2 acres were reviewed, based on readily available mapping data, to determine whether they should be part of the County's updated inventory based on the following criteria:
  - (a) Contain HOCs, as described in Section II. If HOCs are present, then the patch will remain in the updated Goal 5 Inventory mapping. Items a. d., listed below, were used to identify HOCs. These HOC's are similar to those originally defined by Metro, but with additional input from the project Technical Advisory Committee (TAC) and related in-progress analyses of oak habitat and habitat connectivity being conducted by several members of the TAC:
    - (i) Patch occurs in a public park or open space.
    - (ii) Patch overlaps with ODFW Priority Habitat Connectivity Areas (ODFW 2023b). Note that this dataset was conducted for a statewide analysis, and the resulting priority areas were mapped as very large hexagons when viewed at the county-level scale. This dataset captured large areas of clearly developed land as well as areas of remaining habitat within the Map Refinement Area. This screening criterion was further reviewed during the manual review step, and the analysis used professional judgement to determine whether the small patch should be kept solely based on this criterion (e.g., if the ODFW hexagon appeared to be associated with a well-defined riparian corridor and not a single or sprinkling of small habitat patches, then the small patch would be removed).
    - (iii) Patch overlaps with Intertwine Alliance (Intertwine) Oak Patch layer (Intertwine 2018), specifically where the patch score is greater than or equal to the average patch score within the Map Refinement Area. (The range of scores in the Map Refinement Area is 120 to 765. The average patch score in the Map Refinement Area is 221.) This approach is intended to support preservation of oak patches rated as average or better relative to patches in the Map Refinement Area. The Intertwine and its partners have not yet provided guidance on use of their data. This is important to note, because the data scoring methodology is complex, and there are likely varied opinions on how it should be interpreted to inform decision making. The approach described above is intended to be a balanced approach to aid preservation of average or better patches of Oregon oak habitat within the Map Refinement Area, while not capturing every single tree or small cluster of trees that may be present in the Map Refinement Area. During the manual review step (Step III.D, below), this layer was closely reviewed along with aerial photography. If the aerial photo suggested that the oak patch was no longer present, then the small habitat polygon was typically removed.
    - (iv) Patch overlaps with Intertwine Habitat Connectivity model results (Intertwine 2022), specifically the "All Habitats Summed Connectivity Model" layer in which scores rated as "moderate cumulative current and/or moderate constricted" or better for connectivity. This approach for identifying HOCs is intended to support preservation of habitat connectivity for all species reviewed by the Intertwine, with average condition or better being preserved. The Intertwine and its partners have not yet provided guidance on use of their data. This is

important to note, because the data scoring methodology is complex, and there are likely varied opinions on how it should be interpreted to inform decision making. The approach described above is intended to be a balanced approach to aid preservation of average or better connectivity habitat within the Map Refinement Area. This screening criterion was further reviewed during the manual review step (Step III.D), and the analysis used professional judgement to determine whether the small patch should be kept solely based on this criterion (e.g., if the Intertwine mapping of moderate or better was a single or just a few pixels that did not appear to be part of a more extensive connectivity corridor, then the habitat patch was typically removed, except if the small patch still met the oak patch screening criteria).

#### 3. Considerations for Riparian and Upland Wildlife Habitats

- (A) Known protected areas within approved developments (i.e., non-buildable tracts subject to conditions of approval or easements dedicated to conservation) were reviewed for inclusion in or removal from the updated Goal 5 Inventory mapping. The homeowner's association coding in the Metro RLIS Outdoor Recreation and Conservation Area (ORCA) GIS layer was used to define these areas. The following rule set applied to this process:
  - (1) Where such areas overlap or intersect with Goal 5 resources, they were included regardless of size of the area or their potential isolated nature.
  - (2) Where such areas occur but do not overlap or intersect with Goal 5 resources, the areas were not considered significant unless they were greater than 2 acres and aerial photo review reveals that they likely contain natural habitat features (e.g., forest canopy as opposed to being large stormwater ponds).
- (B) Mapped parks and open spaces were identified and incorporated into the Goal 5 resources as follows:
  - (1) Developed parks with only Washington County Wildlife Habitat were maintained in the updated Goal 5 Inventory upland habitat mapping in areas where such parcels overlap with mapped Goal 5 resources, regardless of habitat patch size or connectivity to other habitat types.
- (C) Rock Quarry Areas: Habitat mapping was not adjusted in rock quarry parcels. These areas have and will continue to experience massive changes in habitat presence or absence. It is understood that the current mapping does not reflect current conditions; however, current mapping does reflect a reasonable snapshot of how habitat once looked in these areas. Importantly, it is understood that each operation will be required to restore habitats in compliance with their operations permits and a site reclamation plan as part of any closure process for the rock guarry areas.

#### D. Conduct Manual Review and Data Cleanup

The project ecologist for the Washington County Goal 5 Inventory update conducted a detailed manual review of the map results from the previous step. PDF map figures were generated (481 figures, 11 x 17 inches page size, 1-inch equals 200 feet scale) for consistency with the mapping protocols described above. Appendix B provides examples of these edits. The review of these static maps also included looking at aerial photography and GIS data layers that could be actively turned on and off, zoomed in

and out, to support the manual review. Proposed edits were added to the PDF maps for tracking purposes and to direct the project's GIS analyst in making edits to the maps.

Manual review occurred during the following two broad time intervals:

- (1) Prior to public release of draft maps. Review relied on 2022 Metro RLIS aerial photography.
- (2) Post-public review of draft maps. Review relied on 2023 Metro RLIS aerial photography
  - Public comments, including affected landowners, were reviewed at the parcel level.
  - Revised methods for determining significance of Upland Wildlife Habitat Class B (described below).

The following types of manual edits were made:

- Sliver polygons were removed from the Map Refinement Area layer (see Appendix B, Example 1). These slivers appeared in the UUA boundary GIS layer and are most likely a result of slight misalignment of the underlying data sources during previous GIS processing.
- Habitat mapping discrepancies due to misalignment of GIS data layers were fixed (see Appendix B, Example 2). These discrepancies due to misalignment occurred most often with respect to the parks and open spaces layer, which had a distinct misalignment relative to the Metro RLIS tax lot layer, resulting in slivers of habitat being maintained on adjacent lots instead of being removed.
- Habitats mapped in clearly developed areas were removed (e.g., based on aerial photo review and applying the various criteria described in Section III.C) (see Appendix B, Examples 2 through 5).
- The lot size screening criteria removed some riparian corridors entirely or in a piecemeal manner where there was clearly still a stream that was providing habitat for native fish according to ODFW fish distribution mapping (ODFW 2023a). In such areas, Riparian Wildlife Habitat was added back in (see Appendix B, Example 5).
- The southwestern corner of the King City area was beyond the limits of Metro's Title 13 habitat mapping. Riparian Wildlife Habitat was added based on a review of aerial photography and the project ecologist's experience with the area (see Appendix B, Example 6).
- Small upland patches were removed even if they met the small patch screening criteria (see the rationale and criteria in Section III.C.2(C)) in some circumstances. An example of this is provided in Appendix B, Example 7.
- Very small patches (500 square feet or less) on a single parcel were removed.

In addition to the above, based on a review of the draft public release Goal 5 inventory map update and public feedback, a further review of the significance criteria of Upland Wildlife Habitat Class B was undertaken to consider which of this habitat to consider as significant. The following revised methods were applied to Upland Wildlife Habitat Class B:

Retain Upland Wildlife Habitat Class B that meets the following criteria (and remove areas that do not meet the criteria):

- 1. Is within public parks/nature areas and HOA tracts
- 2. Is a sliver or small bit bordered on at least 3 sides by other habitats to remain.

- 3. Appears to have characteristics similar to Class A habitat
  - (A) Forested<sup>3</sup> and adjacent to Riparian Habitats.
  - (B) Isolated but forested<sup>3</sup> and 2 acres or larger (2-acre threshold includes any adjacent Class A habitat if present)
  - (C) Forested<sup>3</sup> and less than 2 acres but more than 0.5 acres if oak habitat is mapped (review current aerial to determine that mapped oak trees are still likely present). Used Intertwine/Metro Oak mapping layer, with oak habitat score greater than 221. This represents the average score or better of oak habitat in the project study area. Project biologist used best professional judgement to arrive at this scoring threshold since no guidance was provided by Metro/Intertwine.
- 4. Appears to provide an important wildlife corridor between two or more significant habitat areas (i.e., between Riparian Classes 1, 2, and/or Upland Class A and not bridged by another nearby corridor of higher quality)
  - (A) Typical corridor minimum width of 50 feet, but to be assessed relative to surrounding conditions
    - (1) If narrower but appears that ground dwelling animals (e.g., deer, coyote, turtles, and/or amphibians) could pass through (e.g., no fencing or other likely barriers), then may keep if less than 50 feet wide. Determined by project ecologist based on available data and professional judgement.
    - (2) If wider than 50 feet but appears that there are too many barriers, significantly degraded habitat, etc. that would likely prevent ground dwelling wildlife movement, then may choose to remove this habitat.
    - (3) A corridor consuming an entire parcel and/or that would likely prevent reasonable development of the parcel will <u>not</u> be considered significant.

#### IV. Results

Appendix C provides the mapping results for the entire UUA. The tables below provide the following. Table IV-1 provides the UUA study area acreage breakdown between areas in the Map Refinement Area and those areas where an Alternative Inventory Approach was applied. Table IV-2 and Table IV-3 provide the acreage of habitats in the UUA based on current, pre-update, Washington County and Metro

<sup>&</sup>lt;sup>3</sup> Determination of forested condition similar to Class A status was based on 2023 aerial photography and supported by review of the Oregon Department of Geology and Mineral Industries (DOGAMI) Light Detection and Ranging (LIDAR) canopy height layer where canopy height within the Class B polygon was predominantly 40 feet or higher (DOGAMI LIDAR data is from varying years from 2005 – 2014). For reference, typical tree heights per the U.S. Department of Agriculture (USDA) on-line Plants Database are provided as follows:

Typical Native Willamette Valley Native Tree Species	Height at 20 yrs (ft)	Mature Height (ft)
Bigleaf Maple	30	60
Red Alder	50	90
Douglas fir	40	200
Oregon Oak	25	80

mapping, respectively. Table IV-4 provides the final results of the County Goal 5 Inventory update, providing the revised acreages of significant Riparian Wildlife Habitat and Upland Wildlife Habitat.

Table IV-1. Breakdown of limited Goal 5 update Study Area

Location	Acres
Limited Goal 5 Update Map Refinement Area	25,841
Alternative Inventory Approach Applied (Community Plan nar	nes)
Basalt Creek	804
Bonny Slope West	160
Cooper Mountain	1,240
Jackson East	479
North Bethany	849
South Hillsboro	576
Witch Hazel Village South	151
Total Area where Alternative Inventory Approach Applied	4,259
Grand Total	30,100

TableIV-2. Pre-Update Washington County habitat acreage in UUA

Habitat Type	Acres
Water Areas and Wetlands	910
Water Areas and Wetlands, and Fish and Wildlife Habitat	1,200
Wildlife Habitat	1,374
Total	3,484

Table IV-3. Pre-Update Metro habitat acreage in UUA

Habitat Type	Acres
Riparian Class I	2,553
Riparian Class II	1,132
Total Riparian	3,685
Upland Class A	1,149
Upland Class B	1,342
Total Upland	2,491
Total All	6,176

Table IV-4. Goal 5 Updated Significant Habitat Acreage in UUA

Habitat Type	Acres
Riparian Wildlife Habitat Class I	2,174
Riparian Wildlife Habitat Class II	780
Riparian Wildlife Habitat (no classification)*	218
Total Riparian Wildlife Habitat	3,173
Upland Class A (includes overlap with County Wildlife Habitat)	539
Upland Class B (includes overlap with County Wildlife Habitat)	482
County Only Wildlife Habitat	73
Total Upland Wildlife Habitat	1,094
Total All	4,267

<sup>\*</sup>Several of the Alternative Inventory Approach Areas relied on habitat mapping provided by the local jurisdiction, which did not divide Riparian Wildlife Habitat into Class I or II.

#### V. Literature Citations

- Clean Water Services (CWS). 2023. CWS Streams Designation GIS data. Provided via Washington County, July 26, 2023.
- Hennings, Lori. 2009. Summary of Metro's Title 13: Nature in Neighborhoods program and habitat mapping criteria.
- Intertwine Alliance. 2022. All Habitats Summed Connectivity Model GIS data.
- Intertwine Alliance. 2018. Oak Patch GIS data layer. Intertwine Alliance Oak Prairie Working Group.
- Metro. 2023a. Metro Title 13 Resource Inventory GIS data. From 2023 RLIS database, based on maps adopted in 2005.
- Metro. 2023b. Metro Regional Land Information Service (RLIS), GIS data. February 2023.
- Oregon Department of Fish and Wildlife (ODFW). 2023a. Oregon Fish Habitat Distribution Data On-line Mapping Tool. Publish date: April 27, 2023.
- Oregon Department of Fish and Wildlife (ODFW). 2023b. Oregon Connectivity Assessment and Mapping Project: Priority Wildlife Connectivity Areas.
- Washington County. 2023. Goal 5 Significant Natural Areas GIS data. Provided by County 2023. Original data circa 1980's.

# VI. Appendices



# APPENDIX A: SUMMARY OF METRO'S TITLE 13 NATURE IN NEIGHBORHOODS PROGRAM AND HABITAT MAPPING CRITERIA



#### Metro's "Title 13: Nature in Neighborhoods"

- Created the Nature in Neighborhoods program, including these Metro activities:
  - restoration and enhancement grants (Mary Rose Navarro)
  - State of the Watersheds biennial monitoring report
  - Nature-friendly development practices program (Gail Shaloum, Lyn Bonyhadi)
- Model ordinance contains language regarding trails in high-value areas.
- Implements Statewide Planning Goal 5 (fish and wildlife habitat protection).
- Council adopted in fall 2005 after about a 10-year process; jurisdictions compliance in 2009.
- Regionally Significant Fish and Wildlife habitat inventory 3 riparian classes (I, II, III) and 3 upland classes (A, B, C); ~80,000 acres, or 28% of the region.
- Program includes voluntary and regulatory components.
- Regulatory protection on Classes I and II only. New UGB additions will need to look at some protection for
   Classes A and B. Local implementation maps may differ from Metro maps.

Environmental, Social, Economic and Energy (ESEE) analysis resulted in lowering regulatory protection in some riparian areas.

- Two sets of maps: inventory and Habitat Conservation Areas (HCAs are post-ESEE analysis).
- Mapping tool available at http://www.oregonmetro.gov/index.cfm/go/by.web/id=8385; inventory maps, data available at ftp://ftp.metro-region.org/dist/gm/fish+wildlife/.
- Seeks to conserve, protect and restore habitat through time, using a comprehensive approach including voluntary, incentive based, educational and regulatory elements.
- Includes provisions to:
  - determine whether jurisdictions are in compliance (must meet baseline standard, but can do it in a variety of ways and may exceed baseline if desired)
  - monitor and evaluate program performance over time to determine whether the program is achieving
    its objectives and targets (State of the Watersheds on even years, local jurisdictions report on nonregulatory activities on odd years)
  - provide sufficient information to determine whether to amend the program in the future (formal Council check-in scheduled for 2015)
- DEQ considers Title 13 a key tool for complying with Federal Clean Water Act (TMDLs).
- Builds on Title 3 (water quality and floodplain regulations), but Title 13's regulatory area is more site-specific and in some areas, greater in extent compared to Title 3.

#### Key points:

- natural area parks are held to the highest standard
- local jurisdictions set and enforce the requirements (in Tualatin Basin, usually CWS)
- only applies to properties within the UGB
- within current UGB, Class I and II are potentially subject to protection; some upland protection is likely to be required in future UGB expansion areas

#### Wildlife habitat criteria

Habitat characteristic	Criteria for scoring
Habitat patch size	The size value for a patch is calculated by:
	1. Calculating the area in acres for all type 1 patches <sup>1</sup> using a GIS system.
	Assigning all type 1 patches a value of 1 to 3 based on their distribution within three classes derived by finding natural breaks using a GIS system <sup>2</sup> .
Habitat interior	The interior value for a patch is calculated by:
(minimizes edge habitat)	Defining an interior zone for all type 1 patches by using a GIS system to draw internal buffers of 200 feet for each.
G (1992)	Calculating the interior zone area (if any) in acres for all type 1 patches using a GIS system.
	Assigning all type 1 patches an interior value of 1 to 3 based on their distribution within three classes derived by finding natural breaks using a GIS system.
Connectivity and proximity to water	The connectivity to water value for a patch is calculated by:
resources	Calculating the area of all type 1 and 2 patches that is less than 300 feet from of a source of water <sup>3</sup> using a GIS system.
	2. Deriving the "connectivity to water" ratio of each type 1 patch. This is done by dividing the patch area inside 300 feet by the patch area greater than 300 feet away from a stream. (Inside 300 / outside 300 = "connectivity to water" ratio)
	3. Deriving the "adjusted connectivity to water" ratio of each type 2 patch. The area inside 300 feet is divided by two to create an adjusted total. The adjusted amount is divided by the patch area greater than 300 feet away from a stream. ((Inside 300 / 2) / outside 300 = "adjusted connectivity to water" ratio)
	Assigning all type 1 and 2 patches a connectivity to water value of 1 to 3 based on the distribution of their ratios within three classes derived by finding natural breaks using a GIS system.
Connectivity and	The Connectivity/Proximity value for a patch is calculated as follows:
proximity to other patches	<ol> <li>Perform a nearest neighbor operation GIS operation that measures the average distance from each type 1 and 2 patch to other patches within ¼ mile of their perimeters.*</li> <li>Assigning all type 1 and 2 patches a connectivity/proximity value of 1 to 3 based on their distribution within three classes derived by finding natural breaks using a GIS system.</li> </ol>
	*General fragmentation also affects the overall score to a lesser degree. The more fragmented a patch the lower the score.
Habitats of concern and habitats for unique and sensitive species	A habitat of concern is a unique or unusually important wildlife habitat area. They are identified based on site-specific information provided by local wildlife or habitat experts. Habitats of concern can be smaller than 2 acres, and will be included in the inventory if falling into one or more of the following categories:
	Any patch specifically identified as a Priority Conservation Habitat by ODFW, USFWS, or other agencies or local wildlife experts. Priority conservation habitats are Oregon white oak savannas and woodlands, native prairie grasslands, wetlands, and bottomland hardwood forests.
	Any patch of natural land cover identified by ODFW, USFWS, or other agencies or local wildlife experts as a riverine island or delta important to wildlife.  Specifically delineated habitat areas that provide life-history requirements of sensitive, threatened or endangered wildlife species or Great Blue Heron rookeries (for example, nesting habitat for an existing population of native turtles); habitats that support at-risk plants; or habitats that provide unusually important wildlife functions, such as major wildlife crossings/pathways or a key migratory pathway, such as an elk migratory corridor.

<sup>&</sup>lt;sup>1</sup> Type 1 patches are defined as any forest landcover, forested wetland, or nonforested wetland with a total combined size greater than 2 acres. Where different cover types are contiguous they are considered to be part of a single larger patch. Type 2 patches are defined as any shrubland/scrubland or grassland/open soils landcover in a tract greater than 2 acres, within 300 feet off a surface stream.

<sup>&</sup>lt;sup>2</sup> The Jenkins method for finding natural breaks was used. This method creates classes based on natural groupings of data values. Features are divided into classes whose boundaries are set where there are relatively big jumps in the data values.

<sup>&</sup>lt;sup>3</sup> A source of water is defined as any surface river or stream, wetland, or other water body.

Riparian corridors ecological functions and criteria

Ecological	Criteria for receiving a primary	Criteria for receiving a secondary
function	score	score
Microclimate and shade	Forest or woody vegetation_within <b>100 feet</b> of a stream; a wetland <sup>1</sup> ; or a flood area <sup>2</sup> .	Forest or woody vegetation that is contiguous to the primary area (which is 100 feet) and extends outward to <b>780</b> feet.
Streamflow moderation and water storage	A wetland or other water body <sup>3</sup> with a hydrologic connection to a stream; or a flood area.	Forest, woody vegetation, or low structure vegetation/undeveloped soils within 300 feet <sup>4</sup> of a stream; or forest that is contiguous to the riparian corridor (starts within 300 feet <sup>5</sup> but extends beyond); or developed floodplains.
Bank stabilization, sediment and pollution control	A 50-foot band is included within the riparian corridor as a default to maintain basic functions. All sites within <b>50 feet</b> of a surface stream receive a primary score.	Forest, woody vegetation, or low structure vegetation/undeveloped soils located on a slope greater than 25%, that starts within 175 feet <sup>7</sup> of a stream and runs to the first effective break in slope.
	Forest, woody vegetation, or low structure vegetation/undeveloped soils_within 100 feet <sup>6</sup> of a stream or a wetland; or forest, woody vegetation, or low structure vegetation/ undeveloped soils <sup>8</sup> within a flood area.	
	Forest, woody vegetation, or low structure vegetation/undeveloped soils within 100-200 feet of a stream if the slope is greater than 25%.	ê
Large wood and channel dynamics	Forest within <b>150 feet</b> of a stream or wetland; or within a flood area.	Forest within <b>150 to 262 feet</b> of a stream; or developed floodplains.
-	The channel migration zone is basically defined by the floodplain, but where there is no mapped floodplain a default of <b>50 feet</b> was selected to allow for the channel migration zone 9.	
Organic material sources	Forest or woody vegetation within 100 feet of a stream or wetland; or within a flood area.	Forest or woody vegetation within 100 to 170 feet of a stream.

Source: Metro 2001.

eveloped floodplains are not included as a regional resource since they do not receive a primary ecological function score.

7175 feet was chosen due to the method used for mapping riverine slopes.

<sup>&</sup>lt;sup>1</sup>Here we refer to "hydrologically-connected wetlands," which are located partially or wholly within ¼ mile of a surface stream or flood area.

Other water body" could include lakes, ponds, reservoirs, or manmade water feature that is not a water quality facility or farm pond.

All upland forests, vegetation, and undeveloped soils help to moderate streamflow and store water. Staff used 300 feet here because some data layers for landcover types do not extend past 300 feet from a stream.

<sup>&</sup>lt;sup>5</sup>Forest landcover is the only type that extends beyond 300 feet in the Metro database and thus excludes other types.

<sup>&</sup>lt;sup>6</sup>Metro's science paper indicates 100 feet as a suitable average distance for vegetation contributing to filtering.

<sup>&</sup>lt;sup>8</sup>The woody vegetation and low structure vegetation/undeveloped soils are mapped to 300 feet, the forest is mapped to the edge of the floodplain.

<sup>&</sup>lt;sup>9</sup>Application of the <u>default to maintain basic functions</u> will be limited to low and moderate gradient channel types.

#### Class I riparian/wildlife habitat

- Largest classification 32% of total habitat inside UGB, 31% outside
- Includes rivers, streams, wetlands, undeveloped floodplains, forest canopy within 100 feet of streams (200 if steep sloped)
- High value riparian corridors providing 3-5 primary functions (18-30 in the model)
  - Microclimate and shade
  - o Streamflow moderation and water storage
  - Bank stabilization, sediment and pollution control
  - Large wood and channel dynamics
  - o Organic material sources

#### Class II riparian/wildlife habitat

- 14% inside UGB, 10% outside
- 1 to 2 primary functions (6-17 points) or one primary plus one or more secondary
- Includes wildlife habitat where it coincides with the medium value riparian habitat
- Includes rivers, streams, 50-ft area along developed streams, forest canopy or low structure within 200 ft of streams, and portions of undeveloped floodplain beyond 300 ft of streams
- Elevated to Class I when contain HOCs

#### Class III riparian/wildlife habitat

- 8% of habitat inside UGB, 1% outside
- Riparian value only (outside wildlife areas)
- Developed floodplains, smaller forest canopies disassociated from streams (less than 20 acres)

#### Class A upland wildlife habitat

- 24% of habitat inside UGB, 25% outside
- High value habitat areas scoring 7-9 points in model
- Includes upland portions of large forest patches
- May also contain areas providing secondary fxns for riparian, and HOCs outside riparian

#### Class B upland wildlife habitat

- 13% inside, 22% outside UGB
- 4-6 points in model
- Primarily upland portions of medium sized forest patches

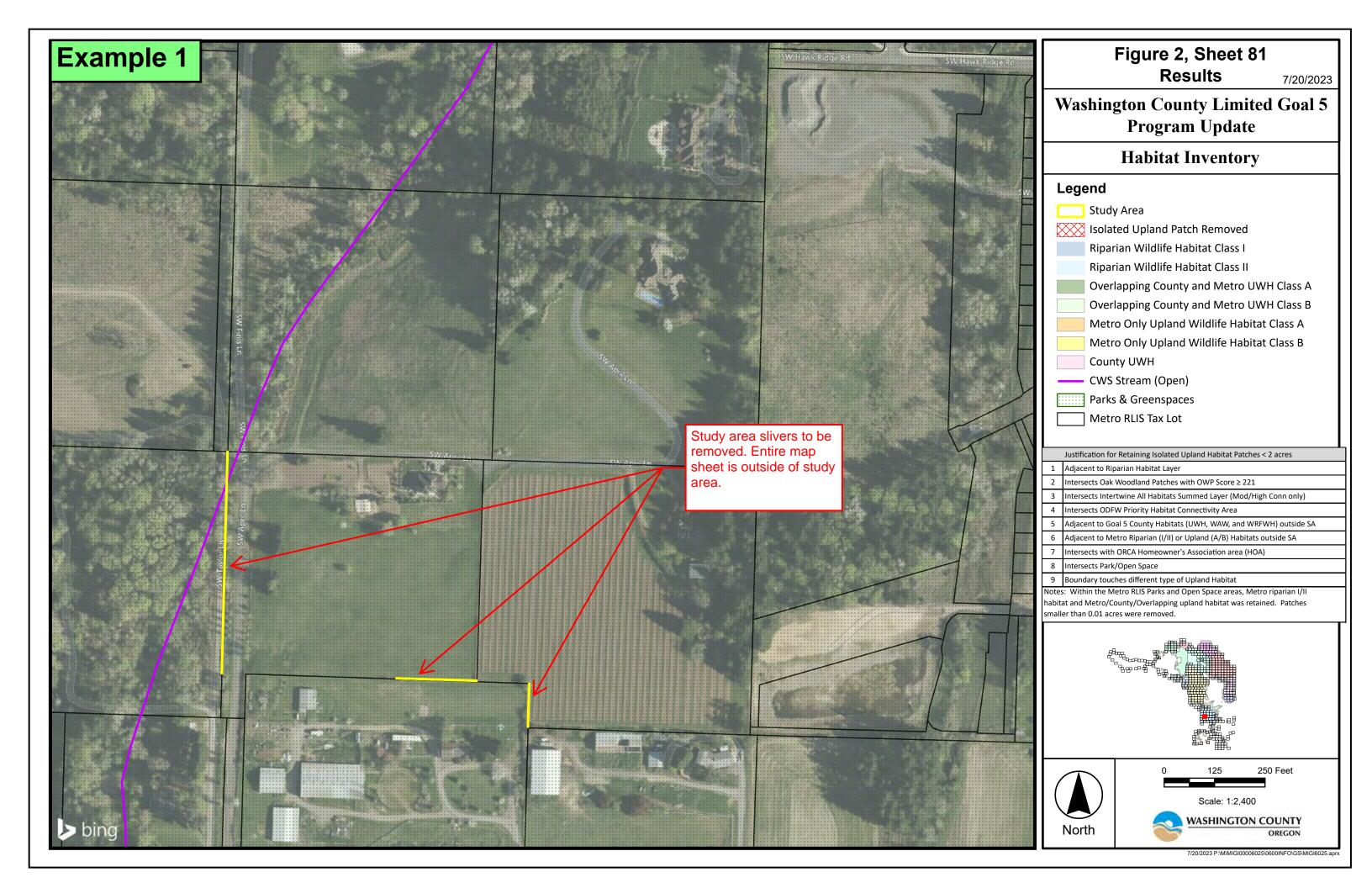
#### Class C upland wildlife habitat

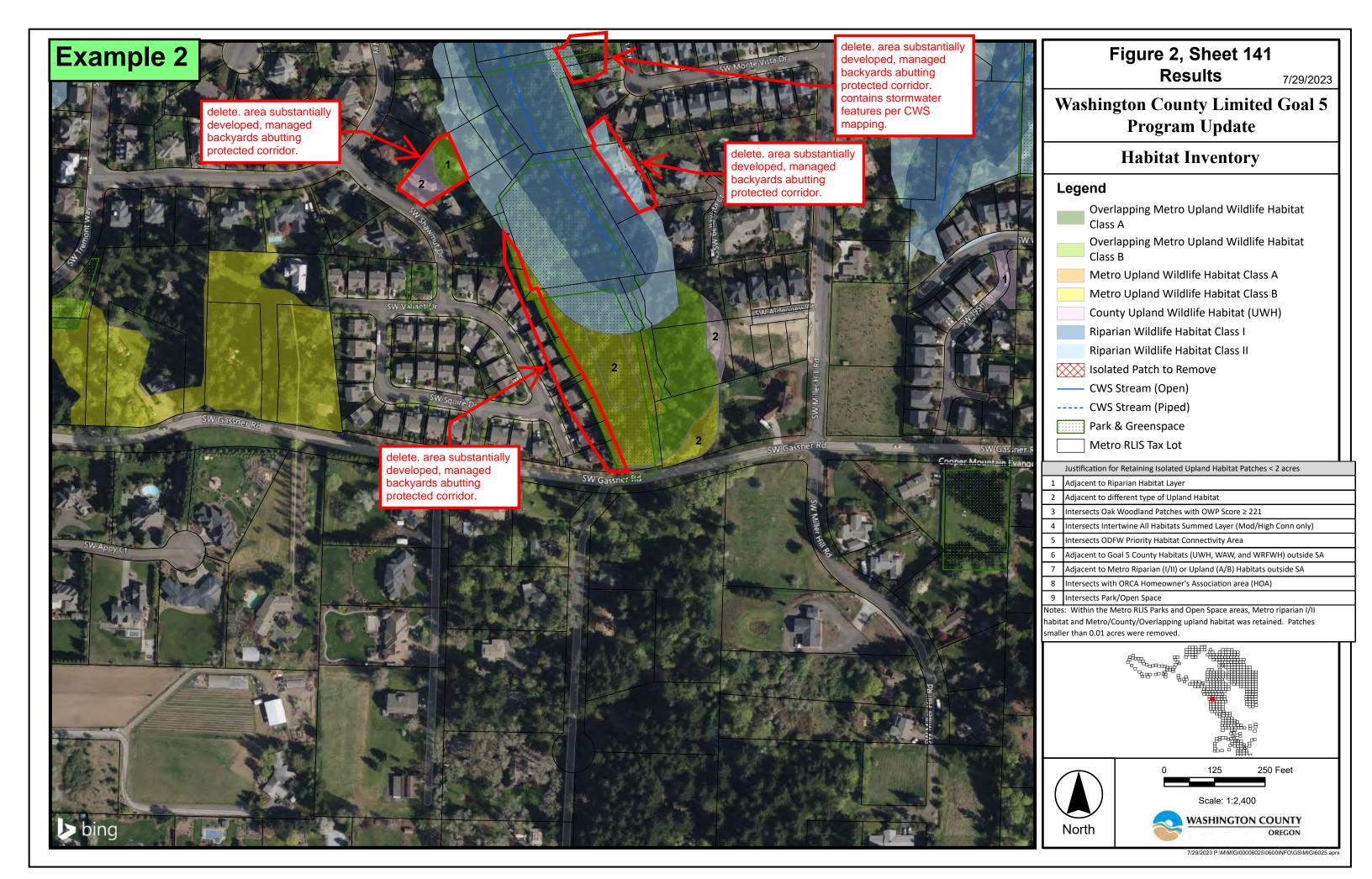
- 9% inside, 11% outside UGB
- 2-3 points in model
- Include forest patches and smaller connector patches along streams and rivers

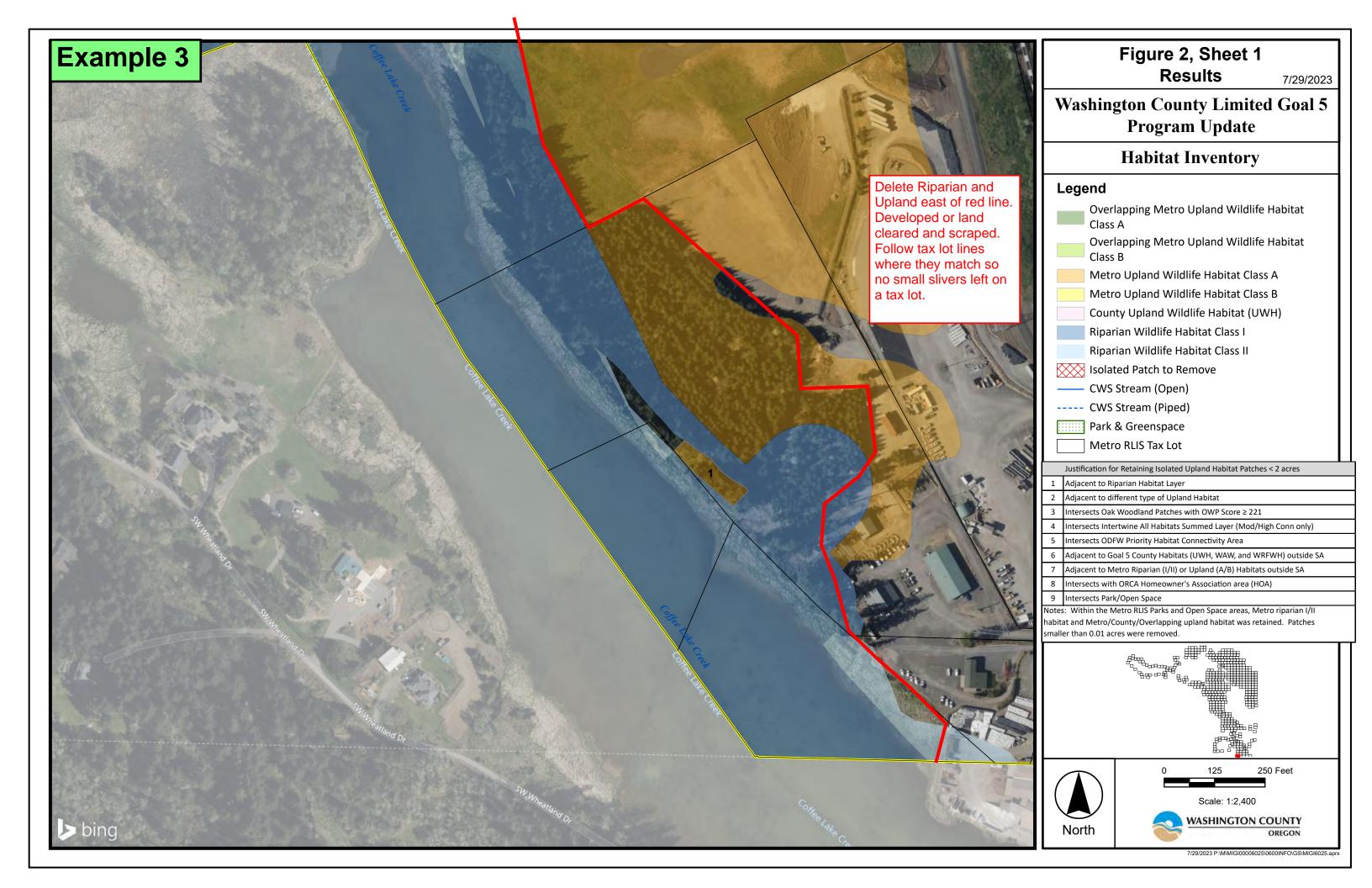
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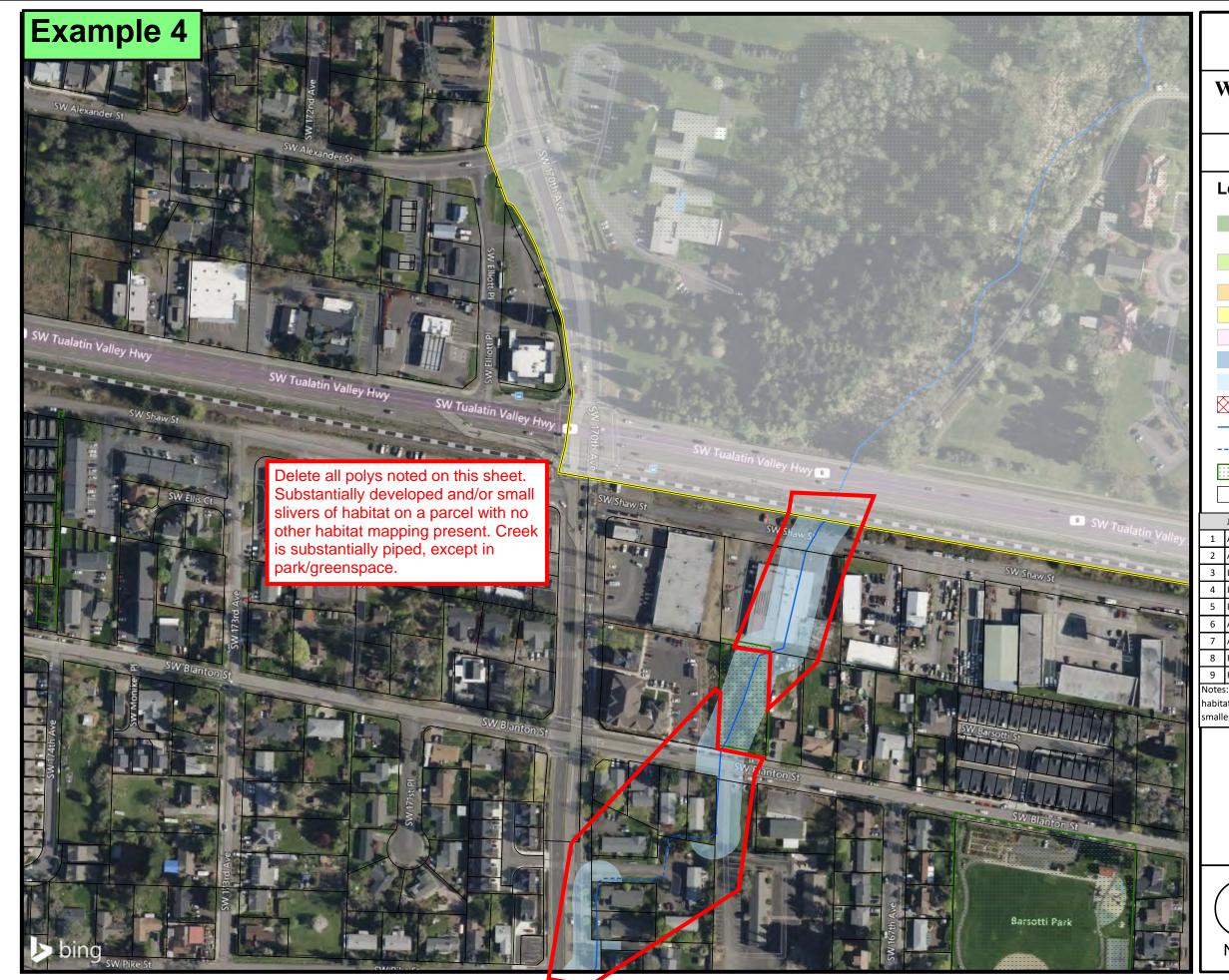
# **APPENDIX B: EXAMPLE MANUAL EDITS**











# Figure 2, Sheet 223 Results

7/29/2023

Washington County Limited Goal 5
Program Update

## **Habitat Inventory**

#### Legend

Overlapping Metro Upland Wildlife Habitat

Overlapping Metro Upland Wildlife Habitat Class B

Metro Upland Wildlife Habitat Class A

Metro Upland Wildlife Habitat Class B

County Upland Wildlife Habitat (UWH)

Riparian Wildlife Habitat Class I

Riparian Wildlife Habitat Class II

Isolated Patch to RemoveCWS Stream (Open)

---- CWS Stream (Piped)

Park & Greenspace

Metro RLIS Tax Lot

Justification for Retaining Isolated Upland Habitat Patches < 2 acres

Adjacent to Riparian Habitat Layer

Adjacent to different type of Upland Habitat

Intersects Oak Woodland Patches with OWP Score ≥ 221

Intersects Intertwine All Habitats Summed Layer (Mod/High Conn only

Intersects ODFW Priority Habitat Connectivity Area

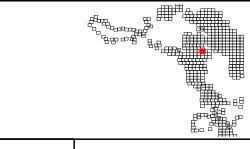
Adjacent to Goal 5 County Habitats (UWH, WAW, and WRFWH) outside SA

Adjacent to Metro Riparian (I/II) or Upland (A/B) Habitats outside SA

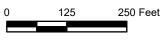
Intersects with ORCA Homeowner's Association area (HOA)

9 Intersects Park/Open Space

Notes: Within the Metro RLIS Parks and Open Space areas, Metro riparian I/II habitat and Metro/County/Overlapping upland habitat was retained. Patches smaller than 0.01 acres were removed.



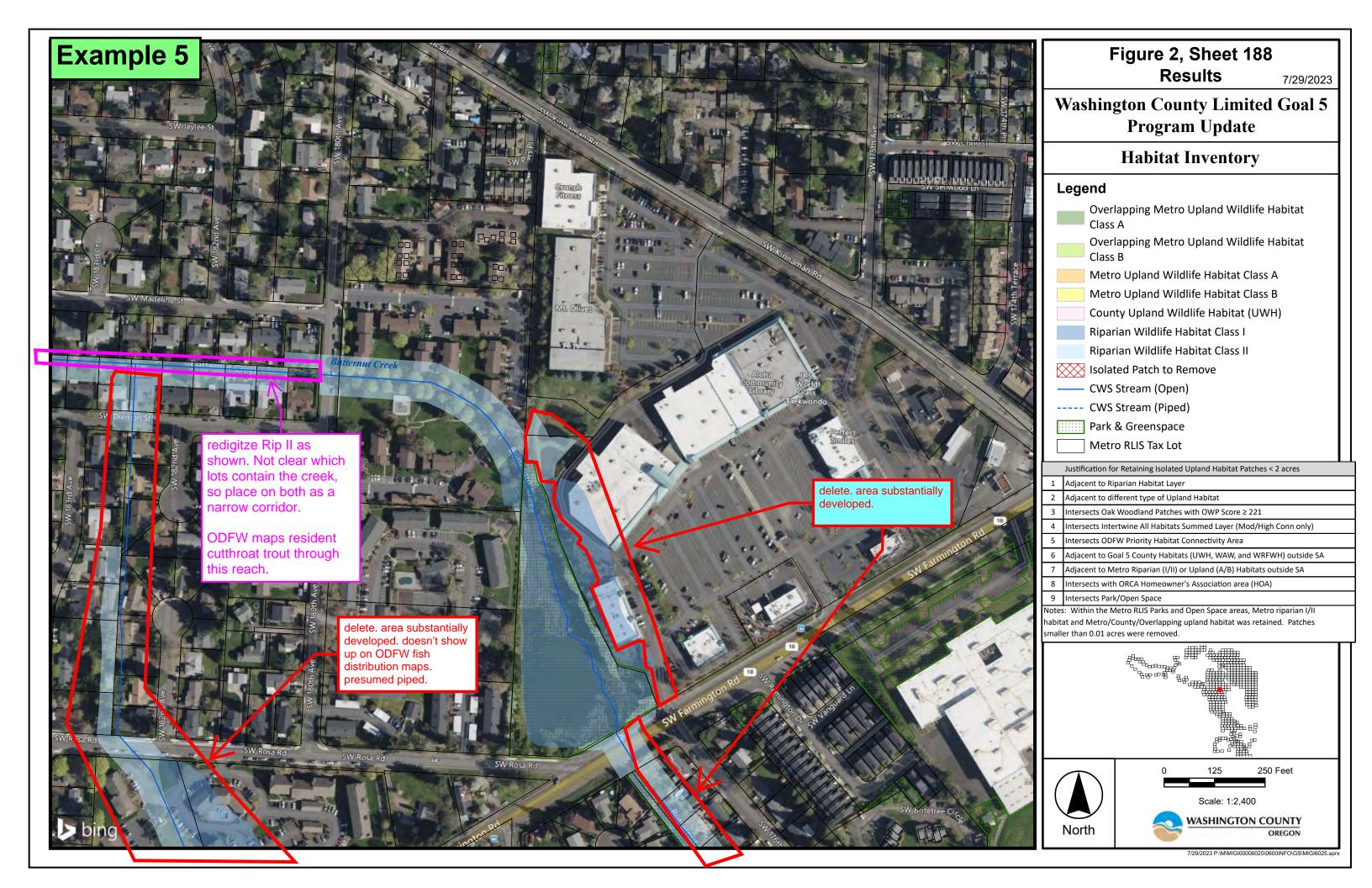


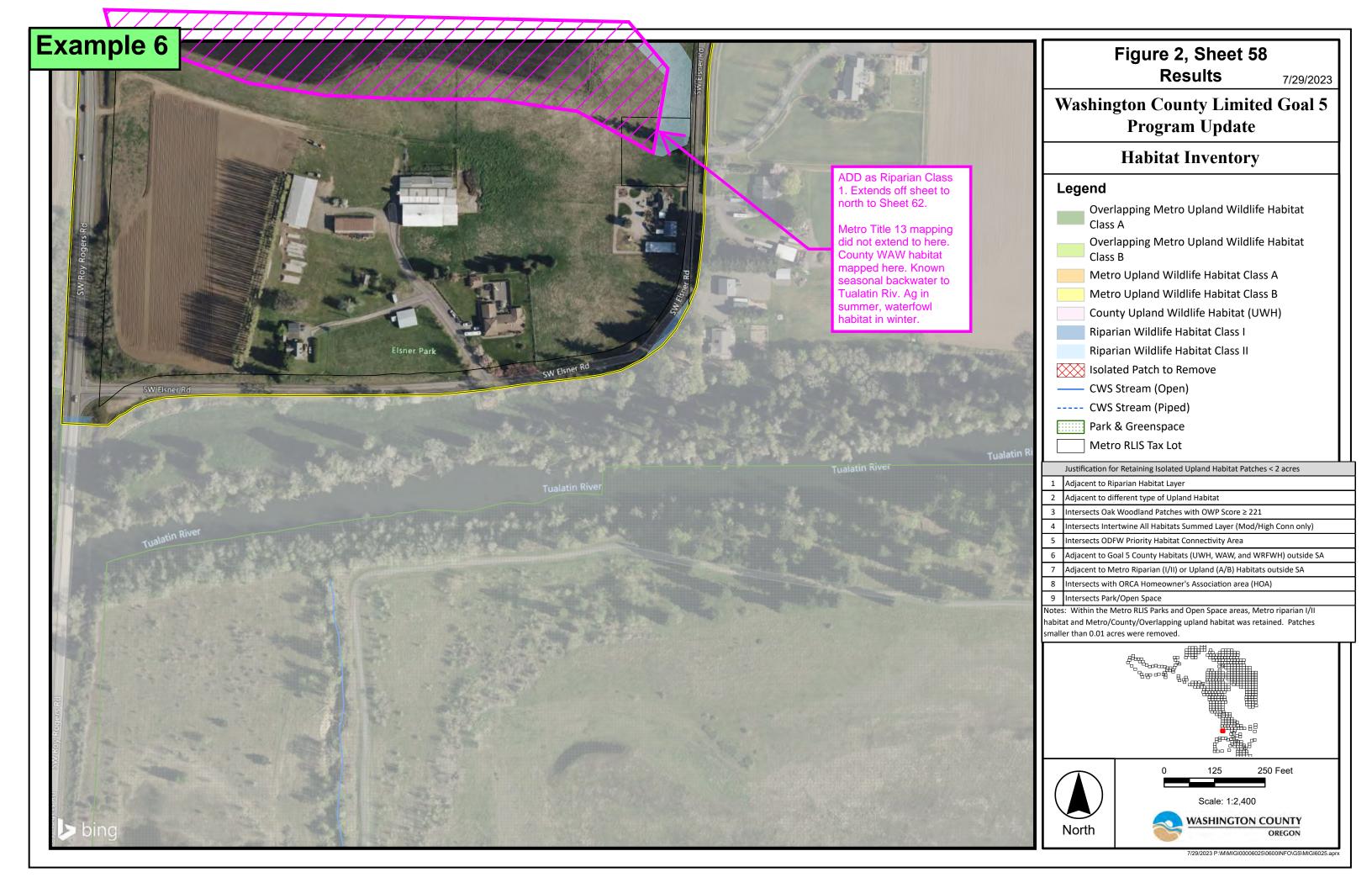


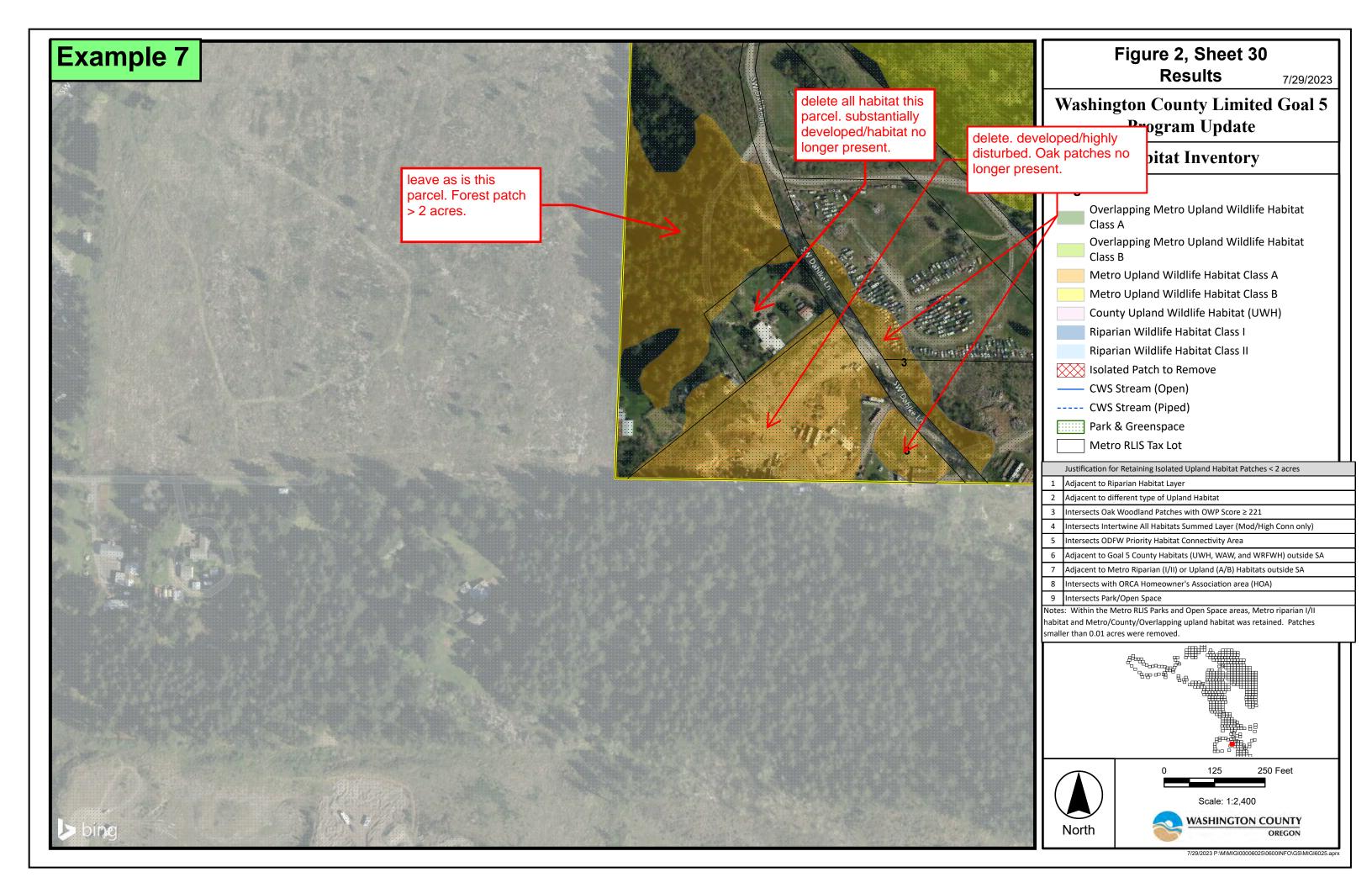
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WASHINGTON COUNTY
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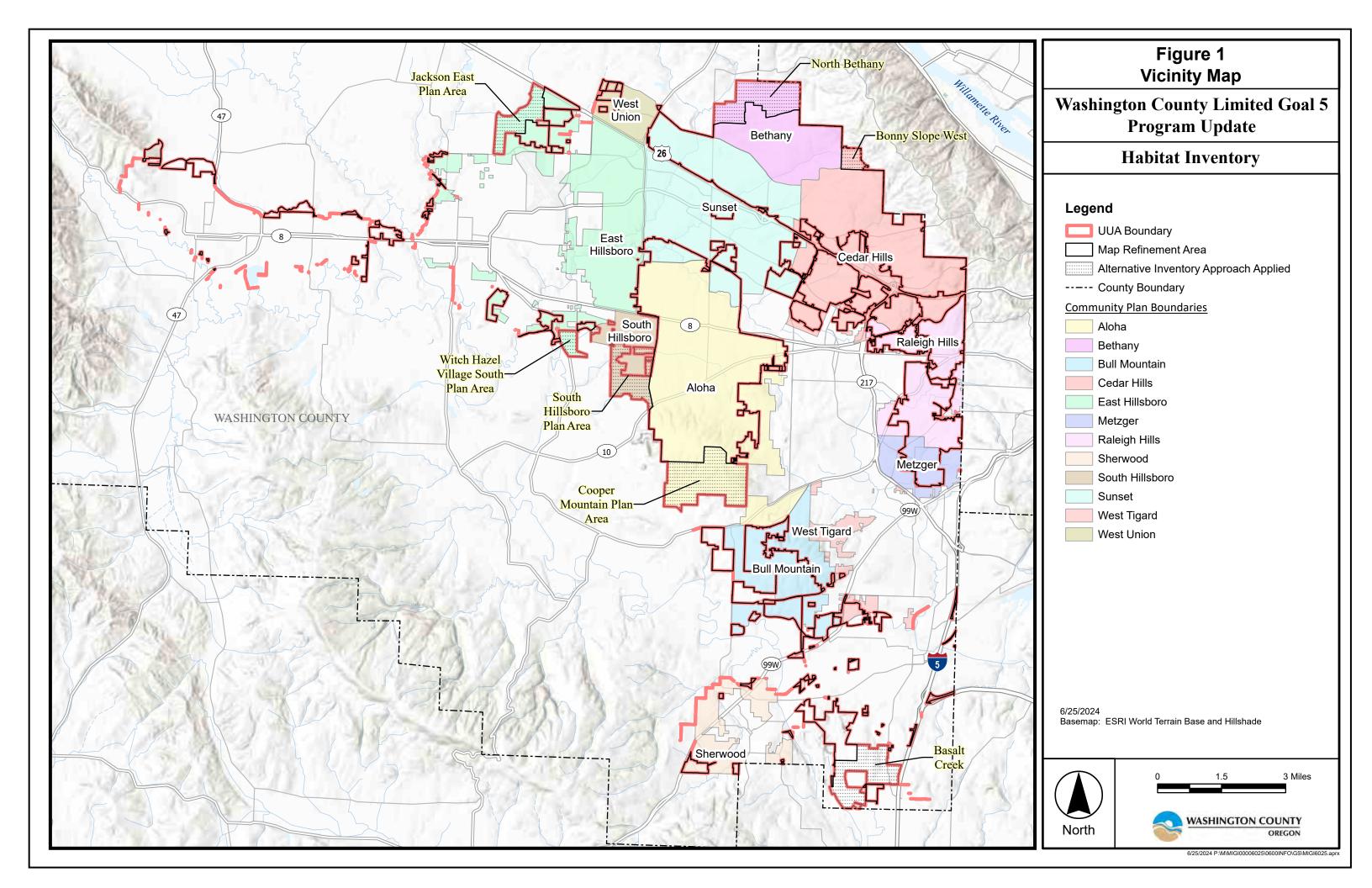


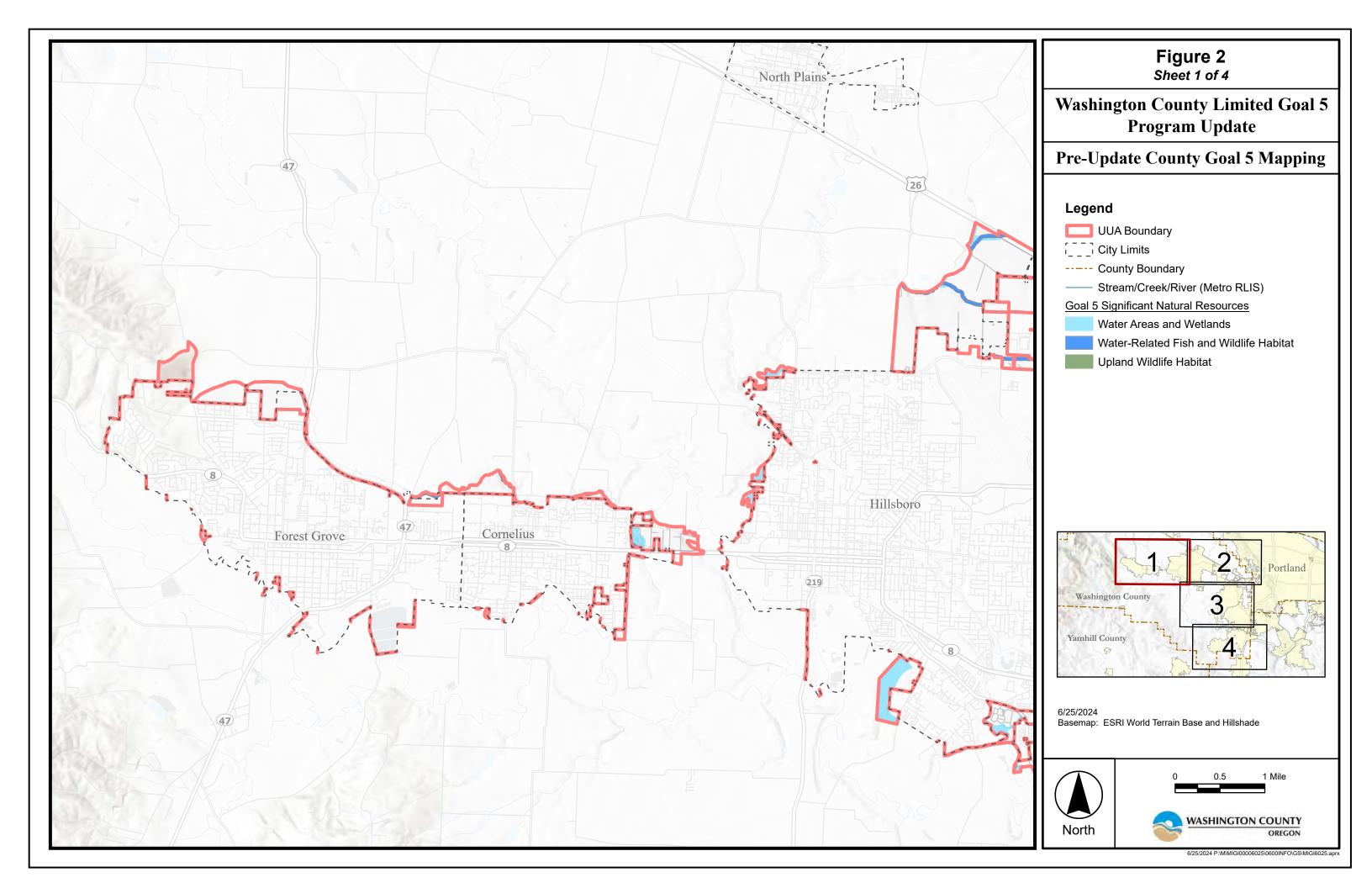


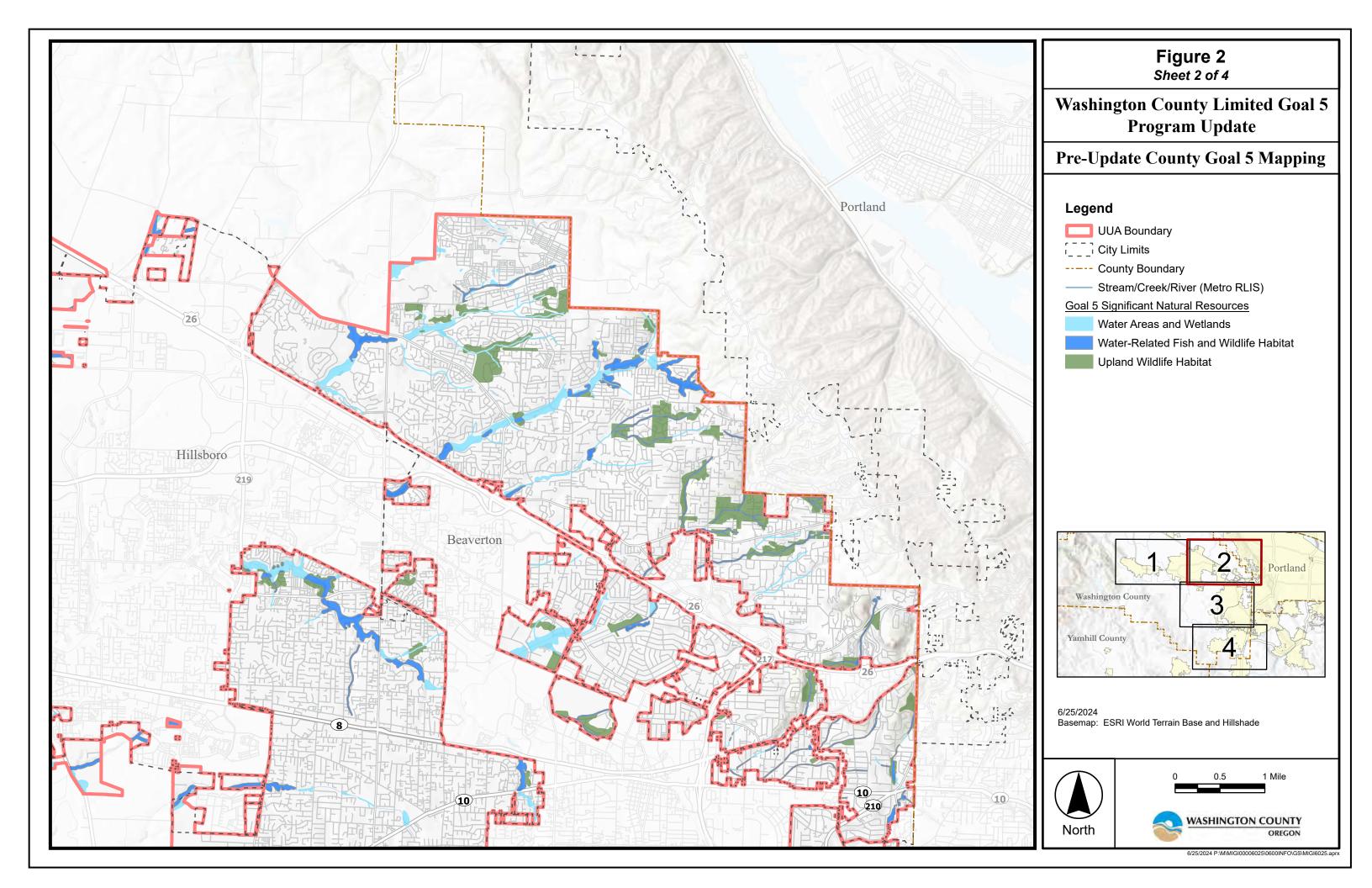


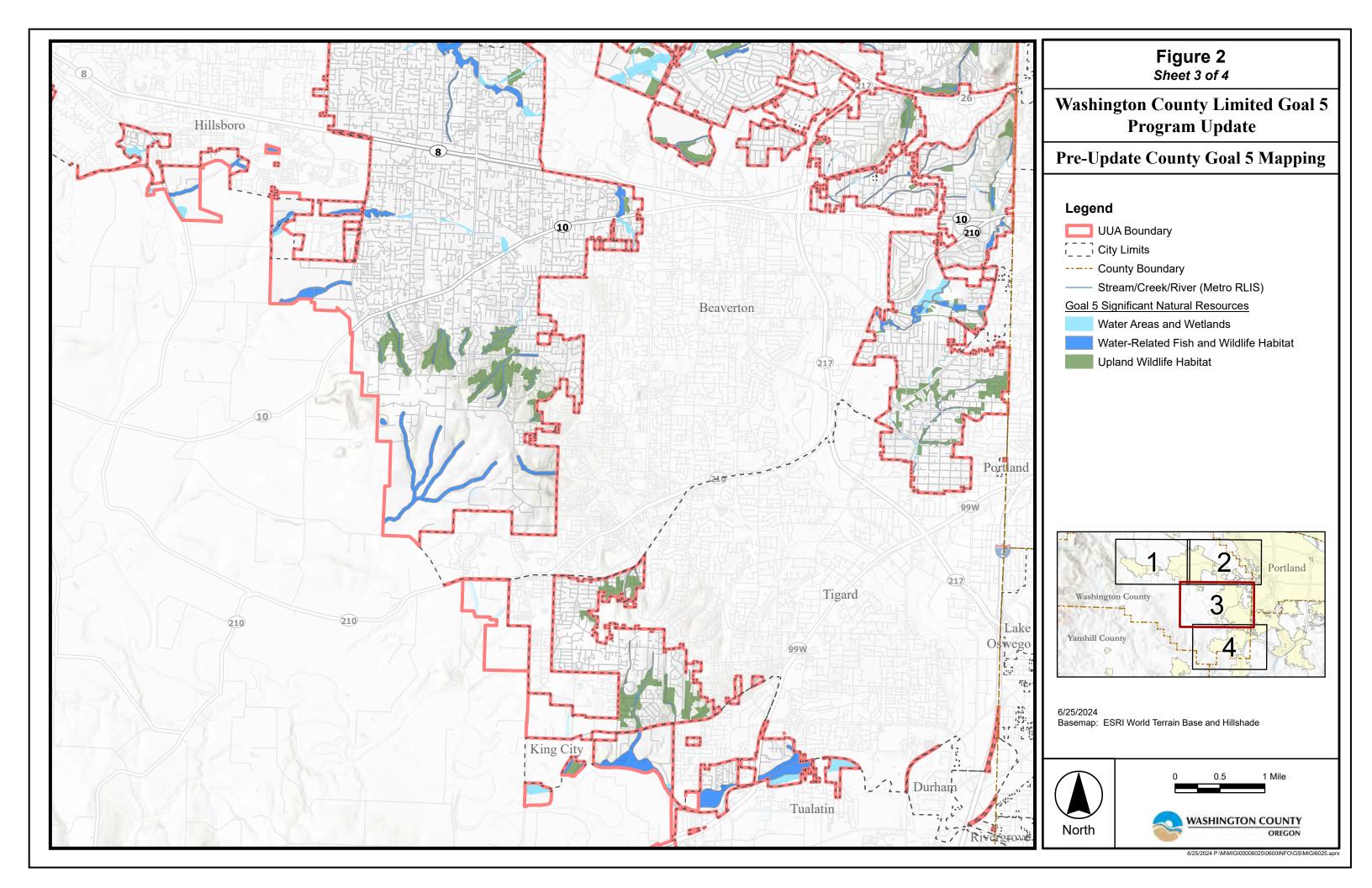
## **APPENDIX C: FIGURES**

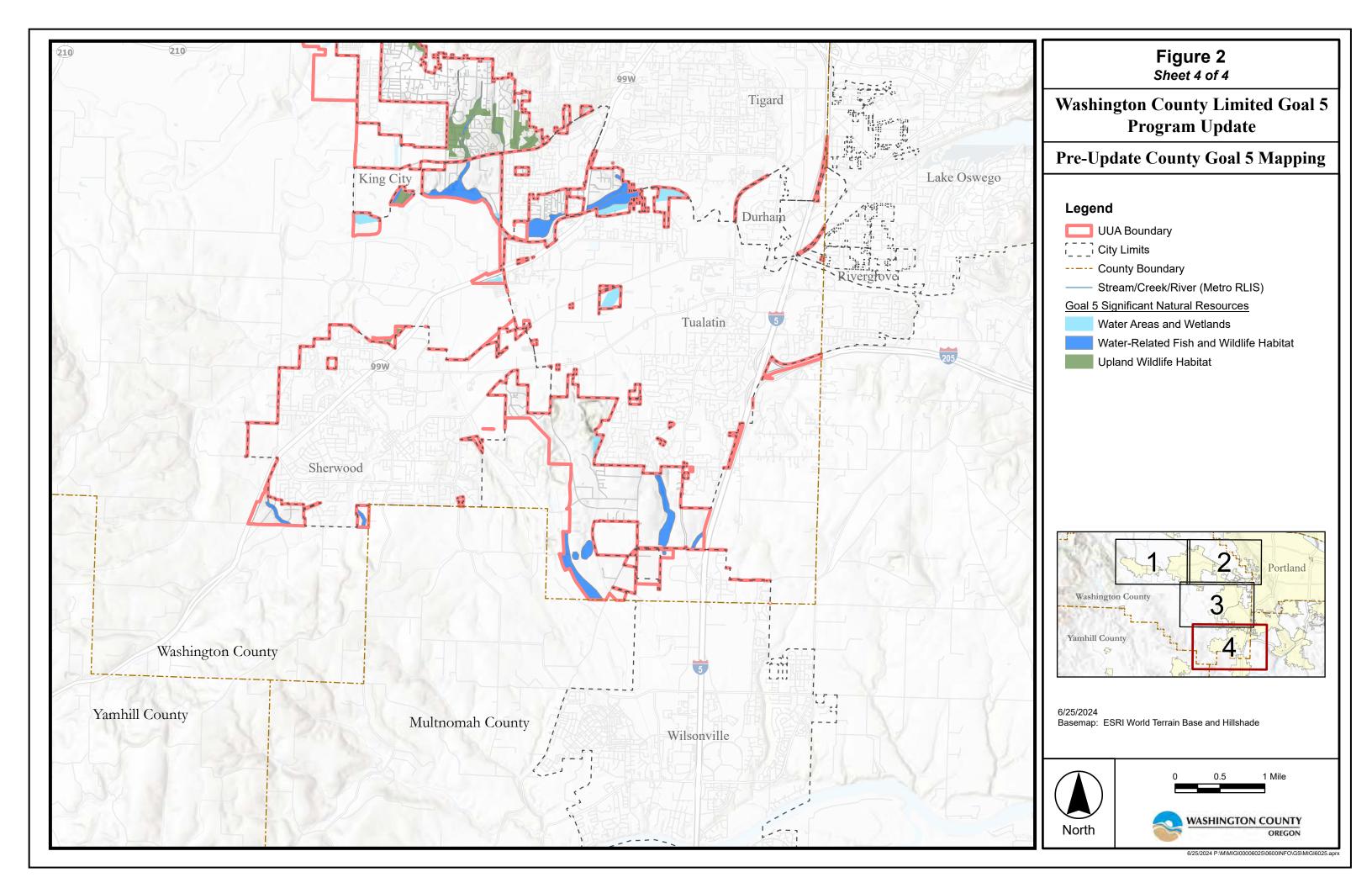


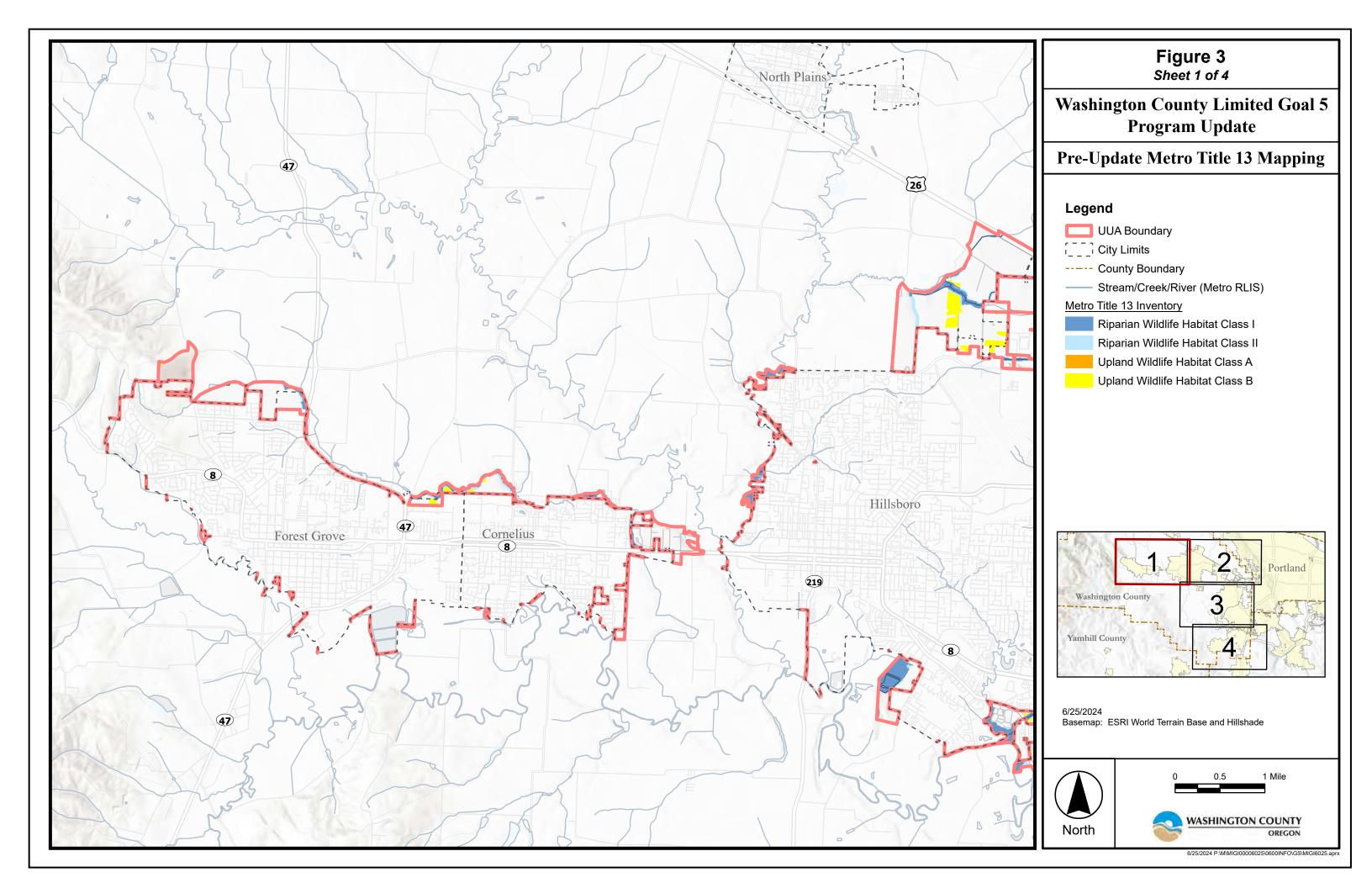


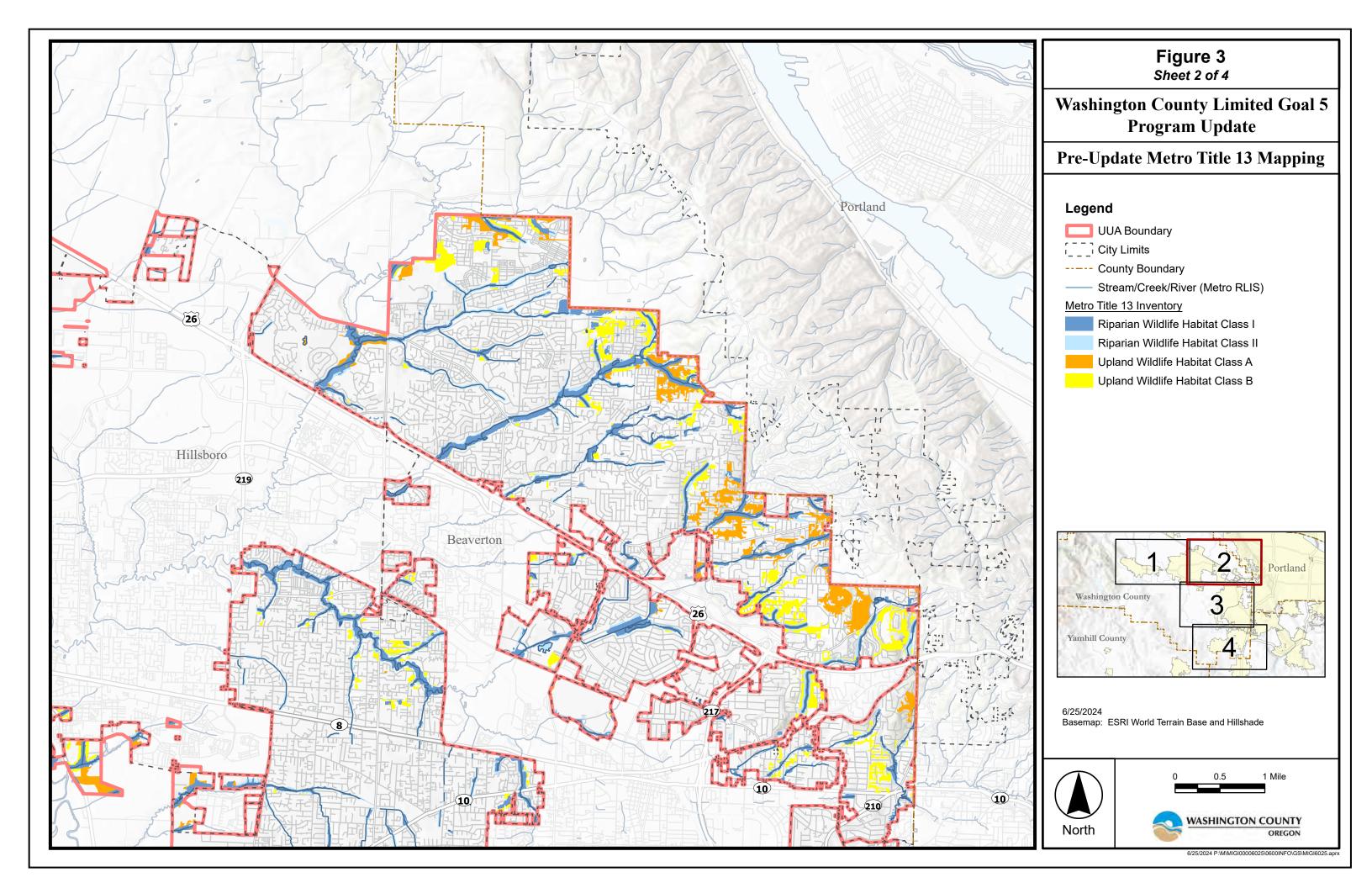


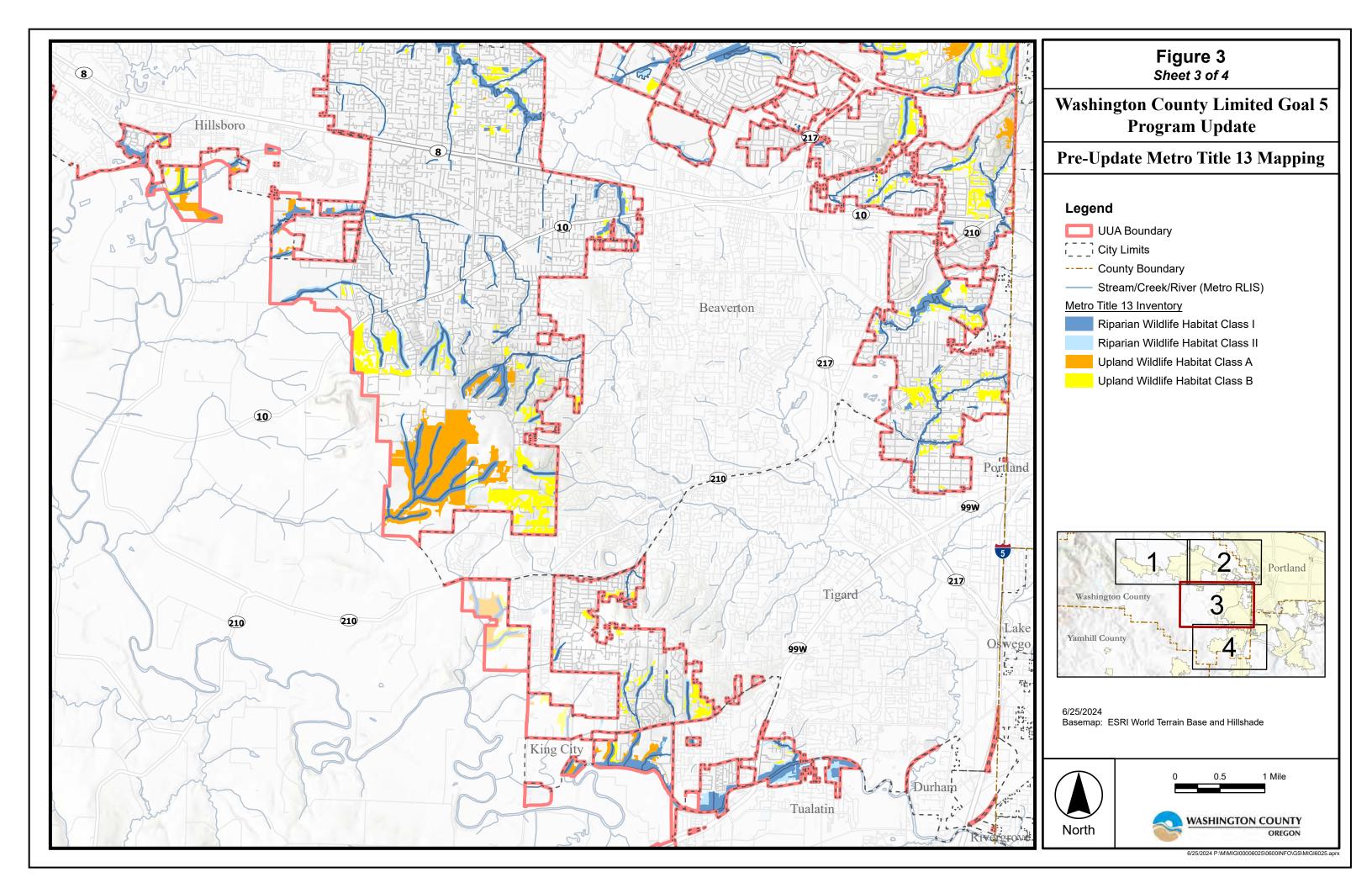


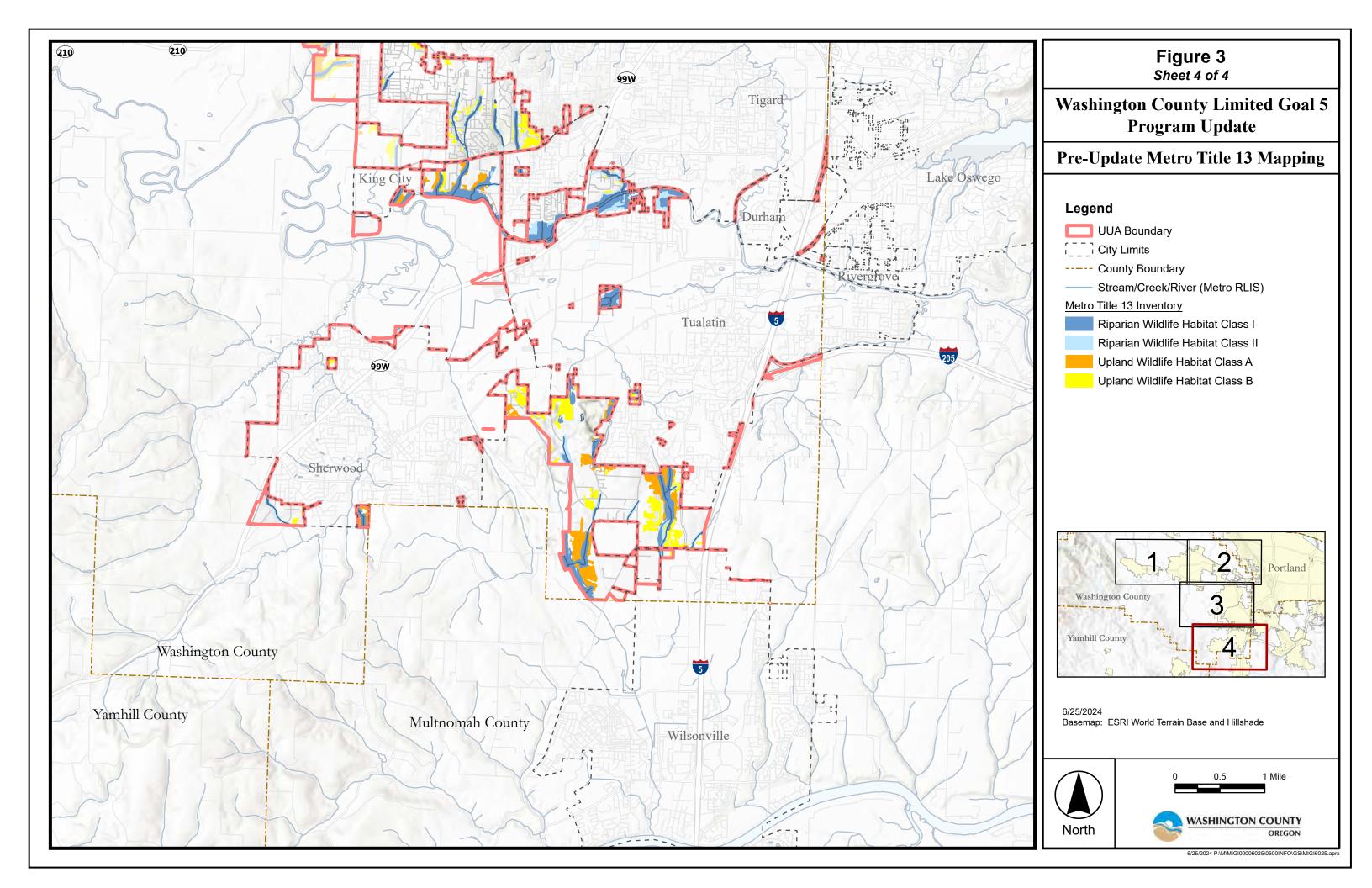


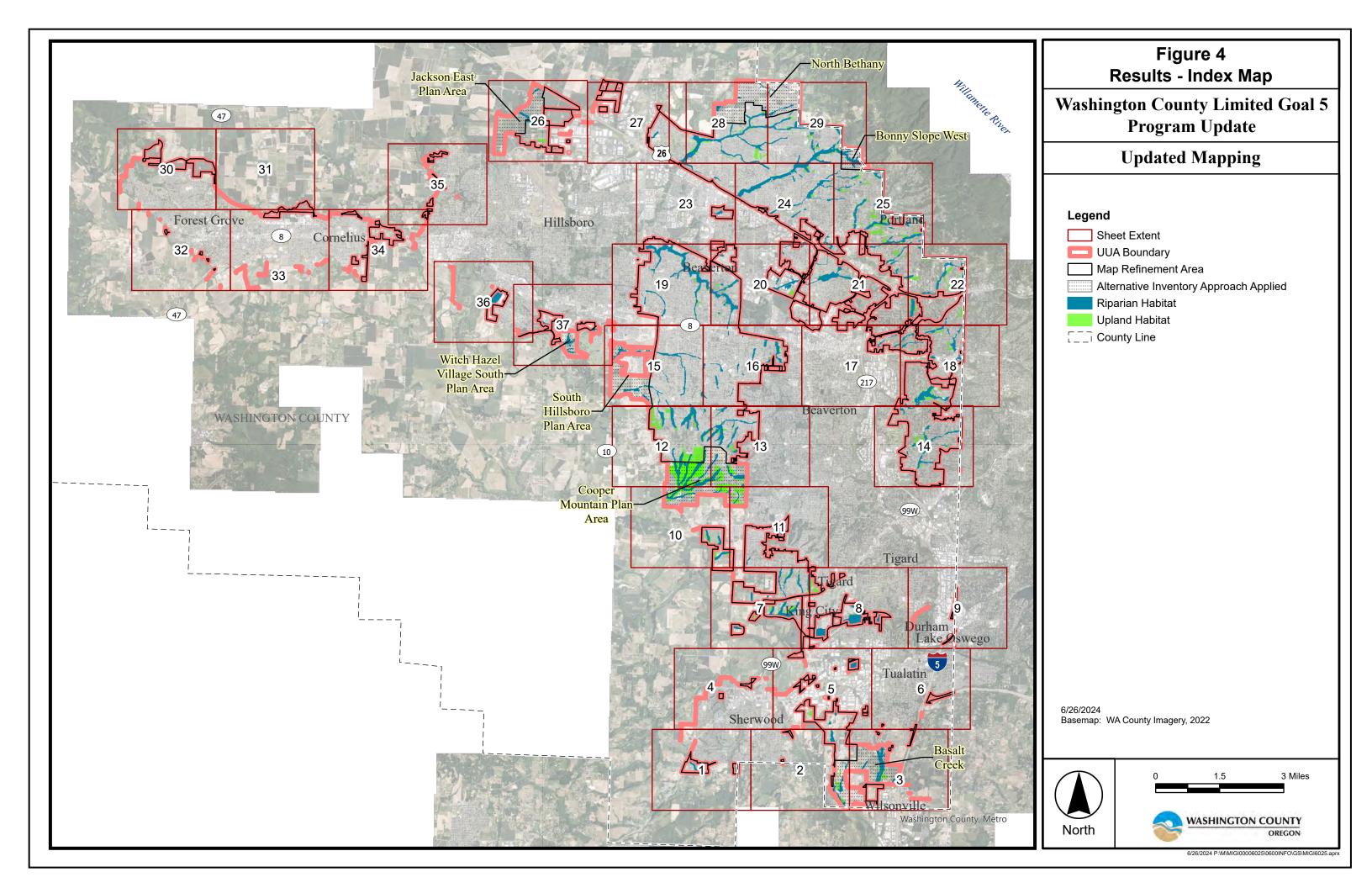


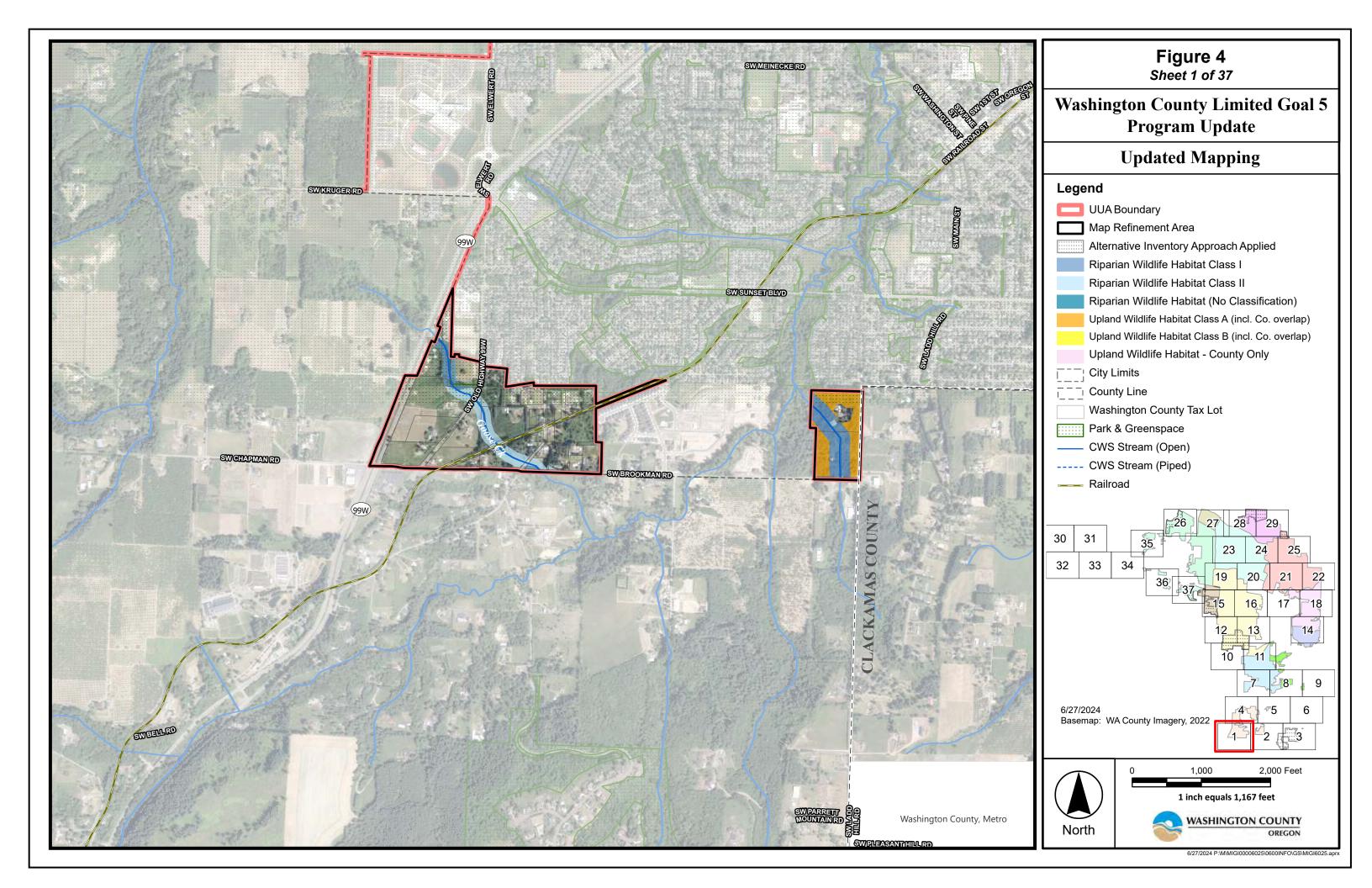


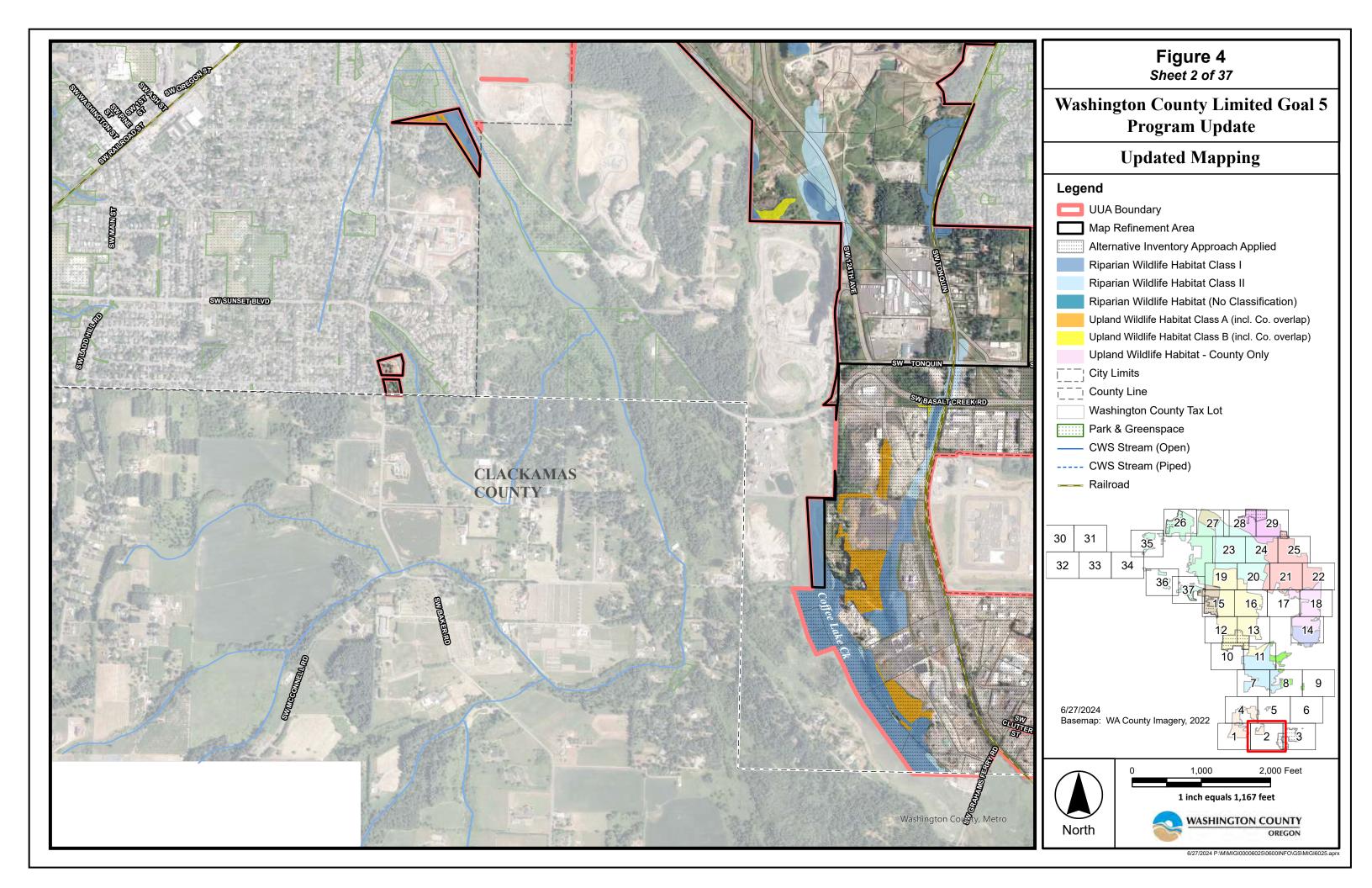


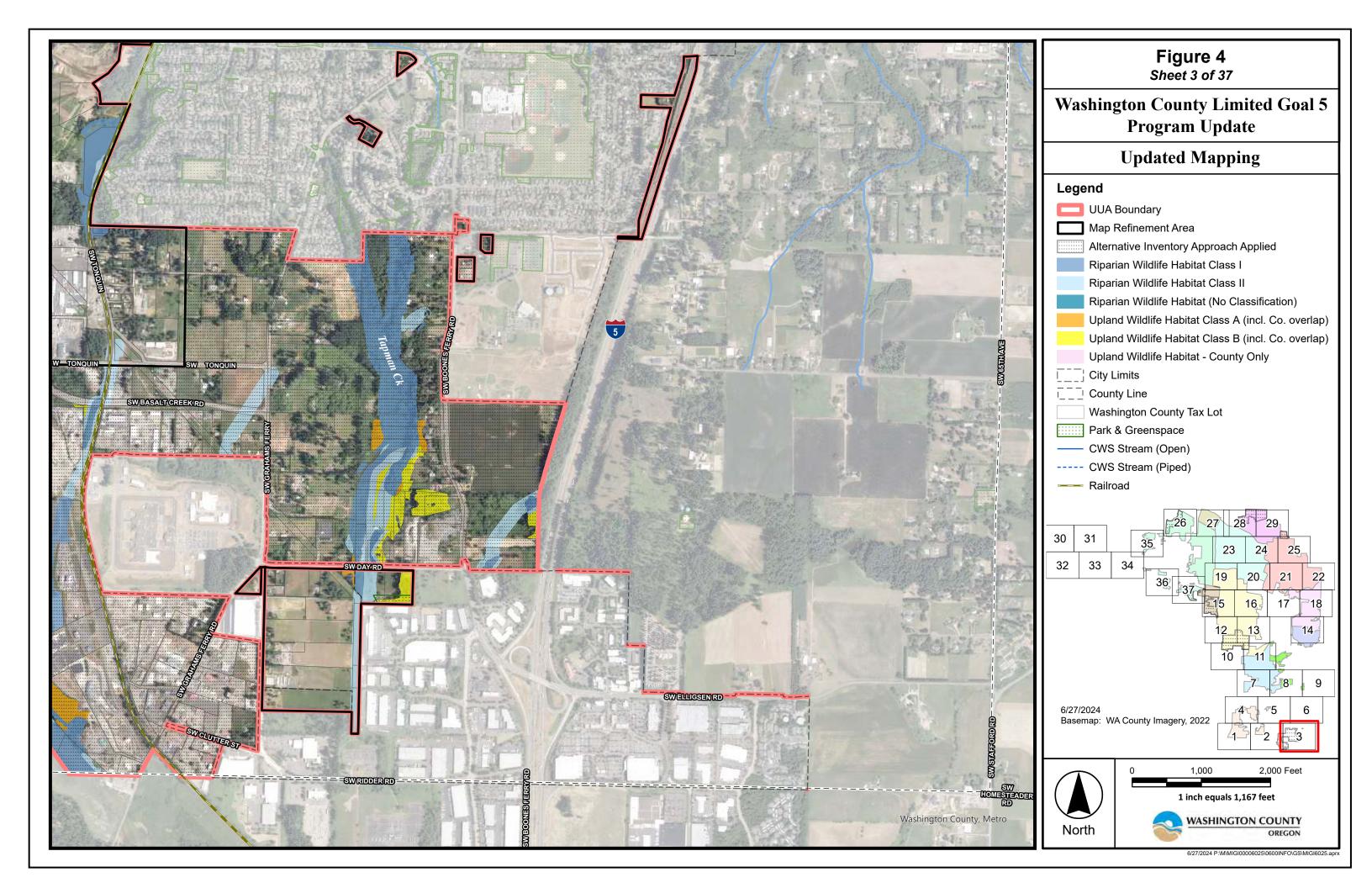


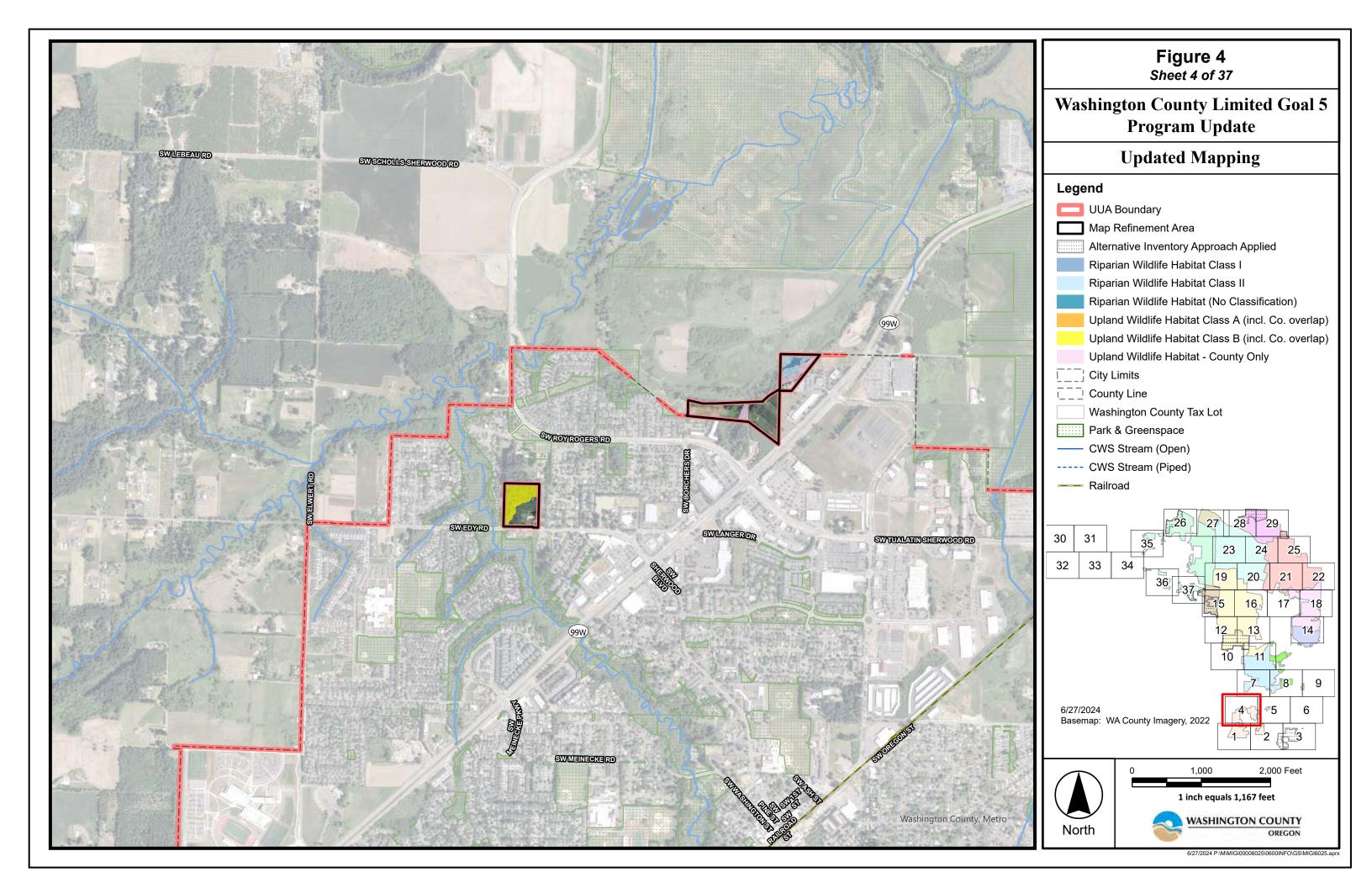


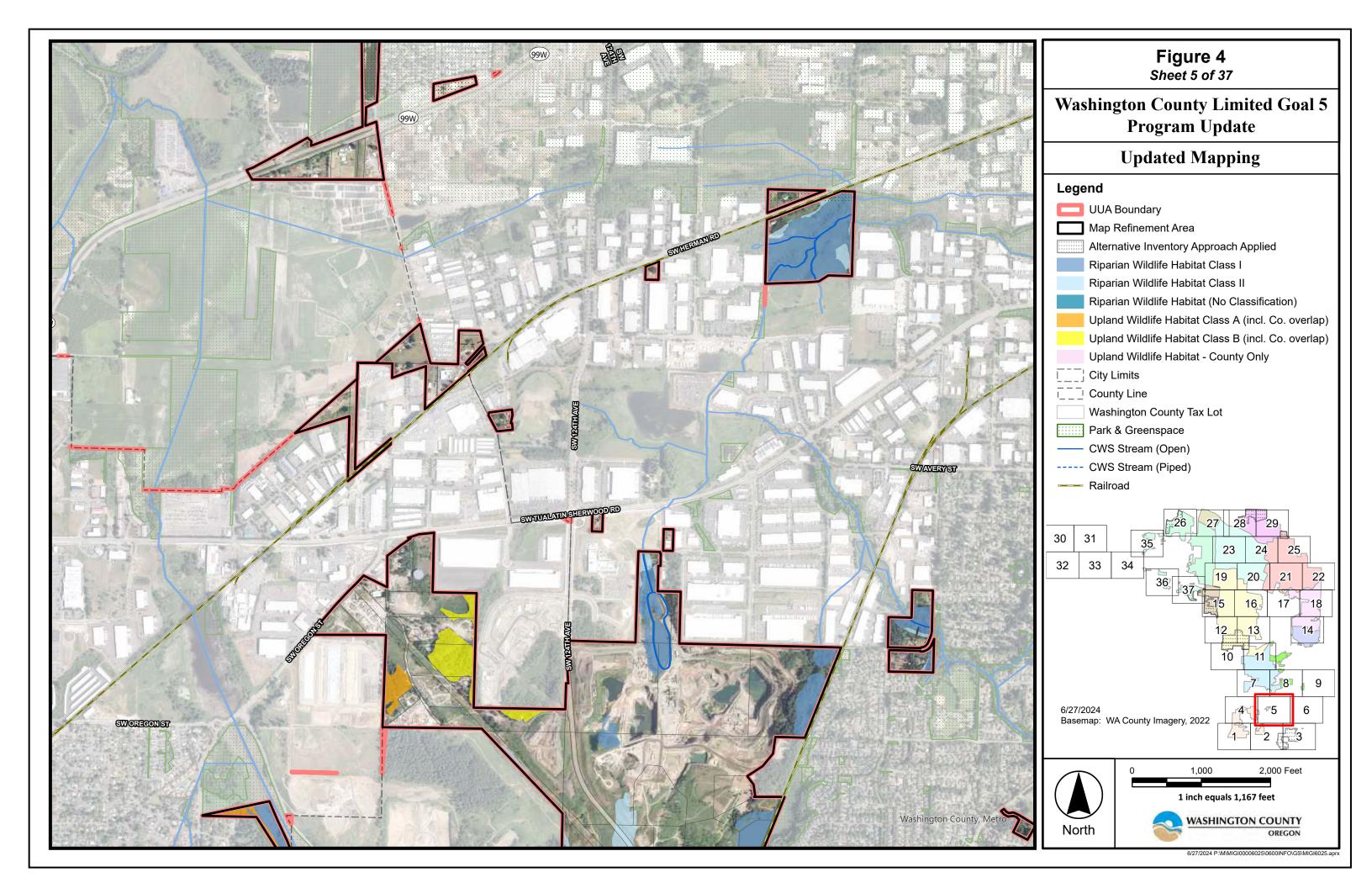


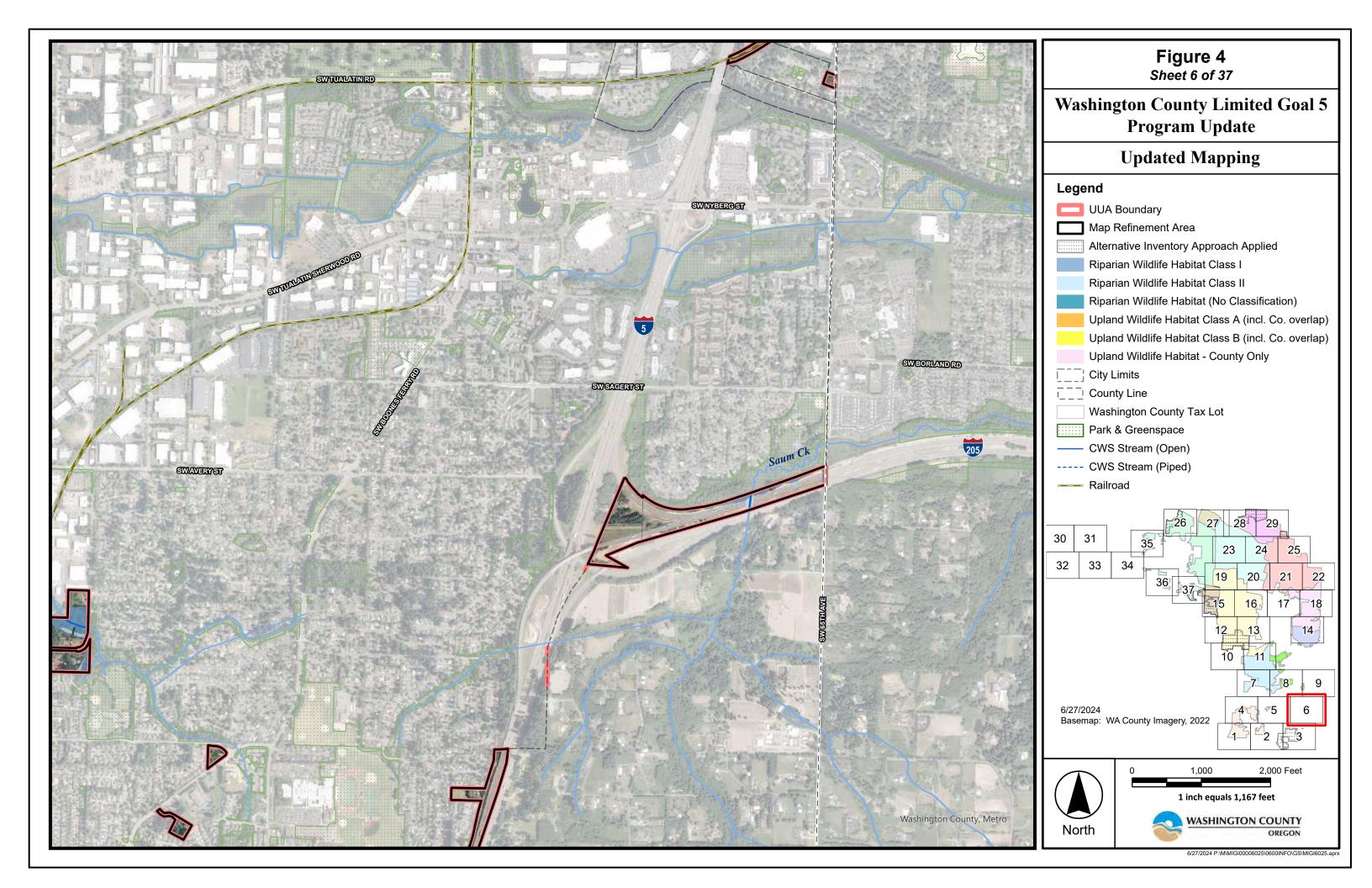


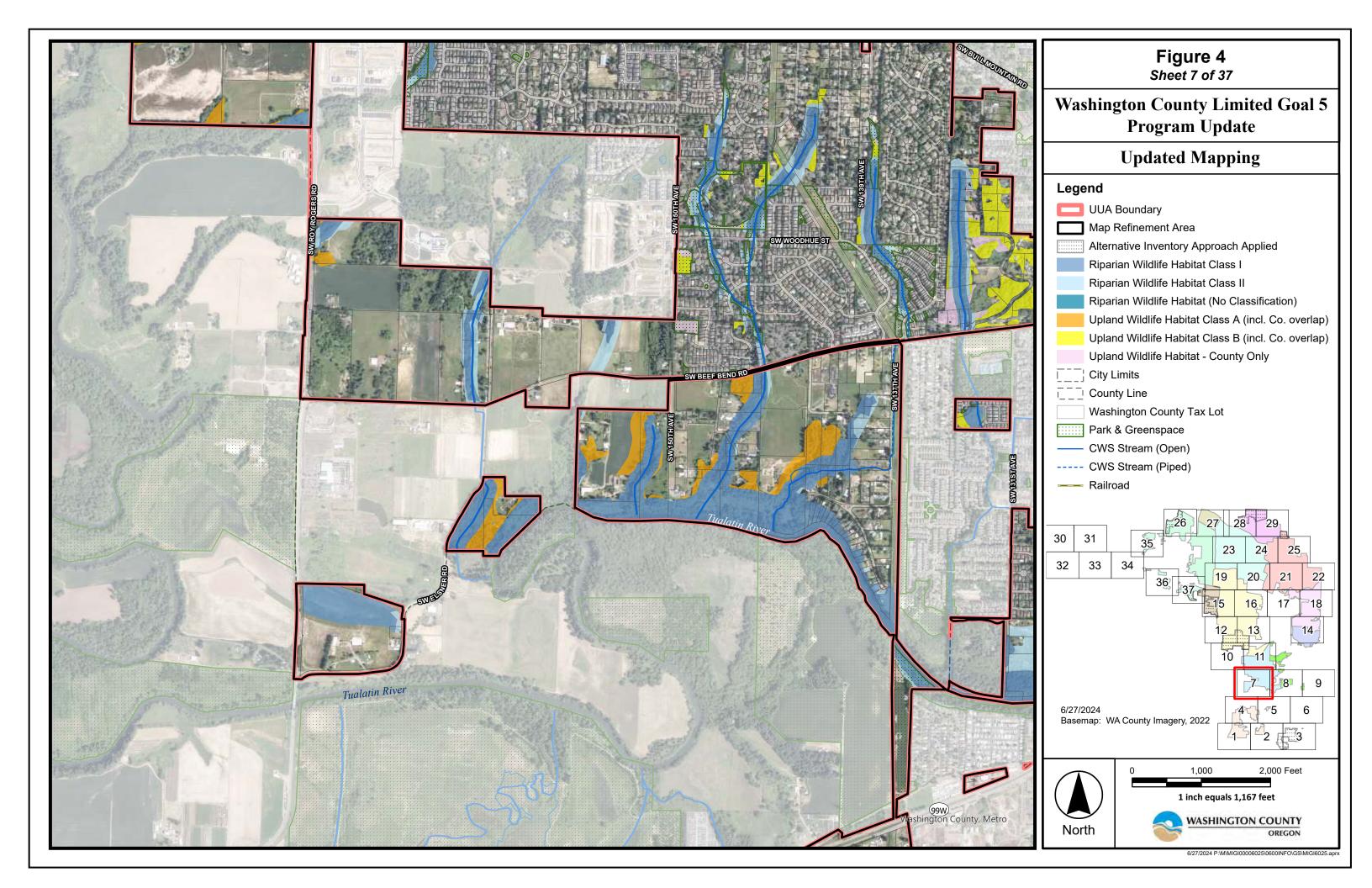


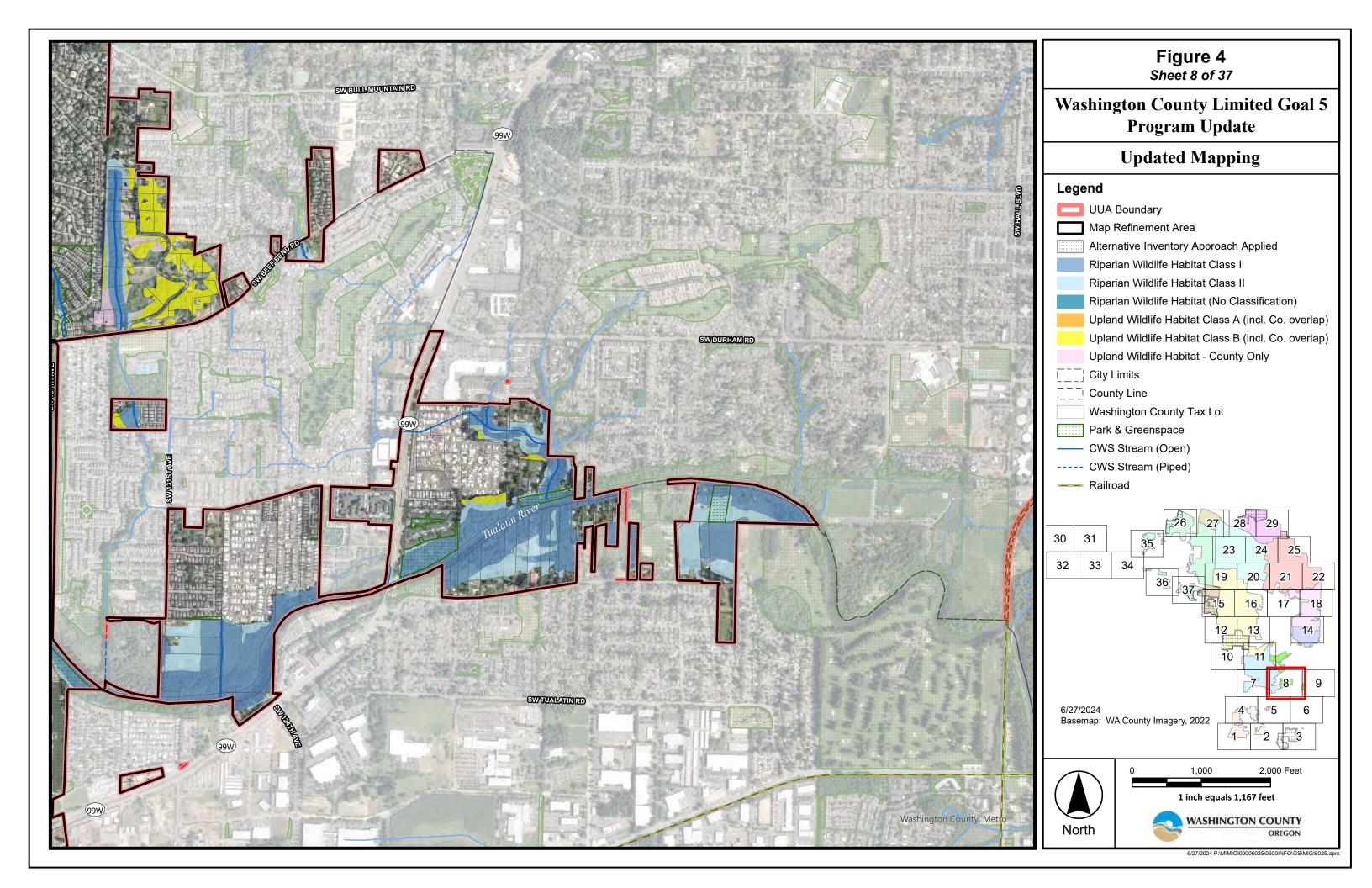


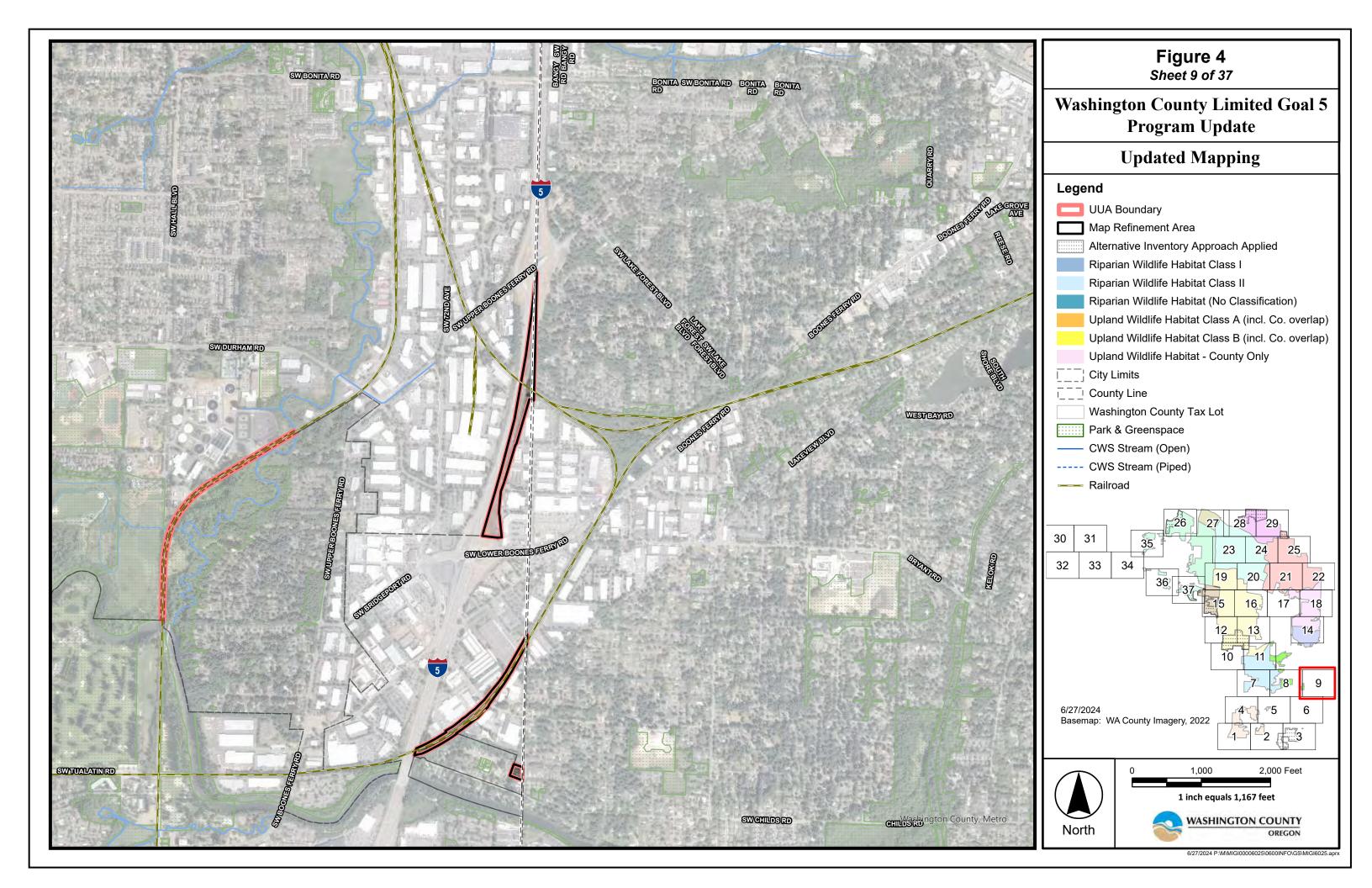


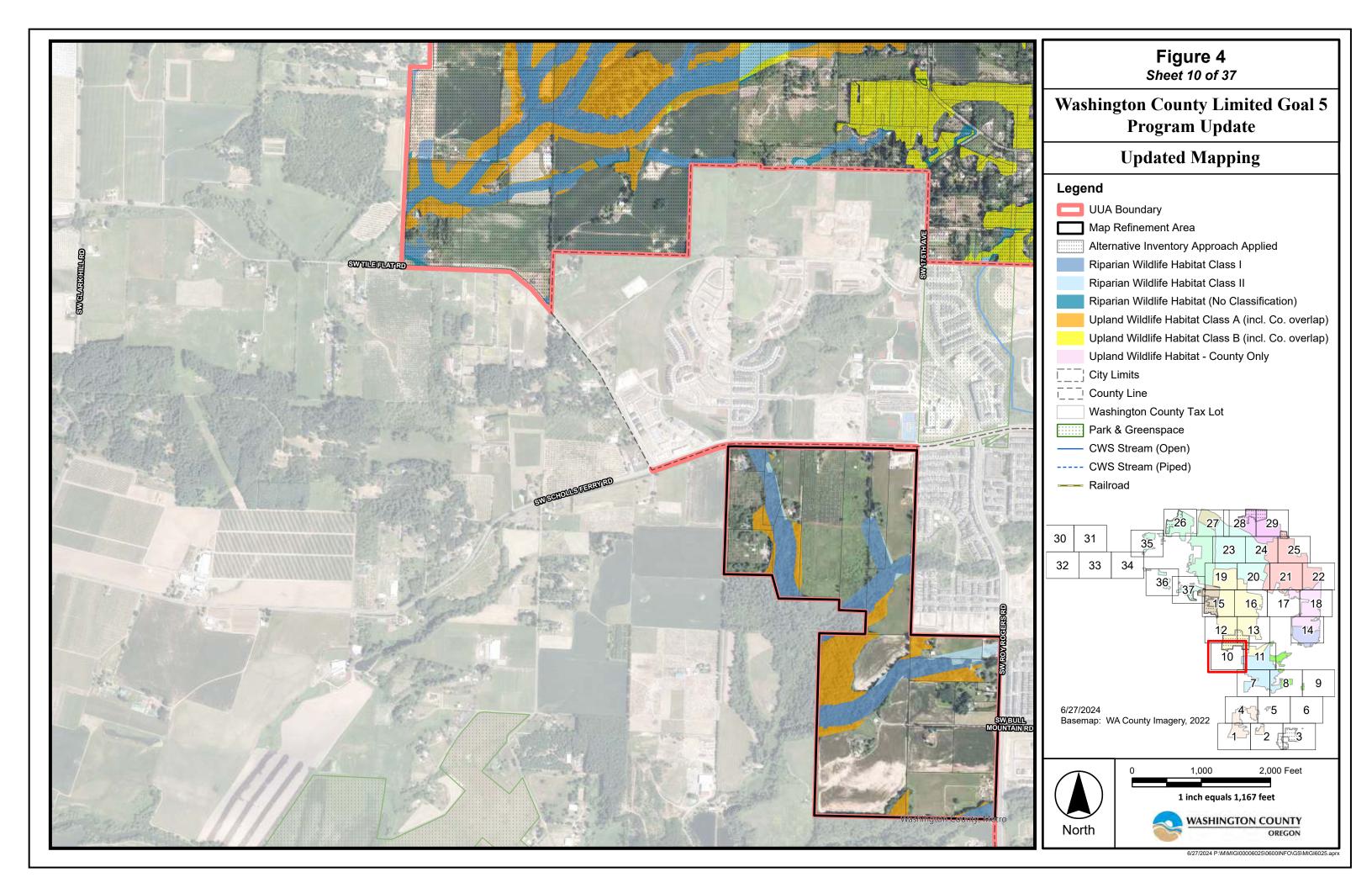


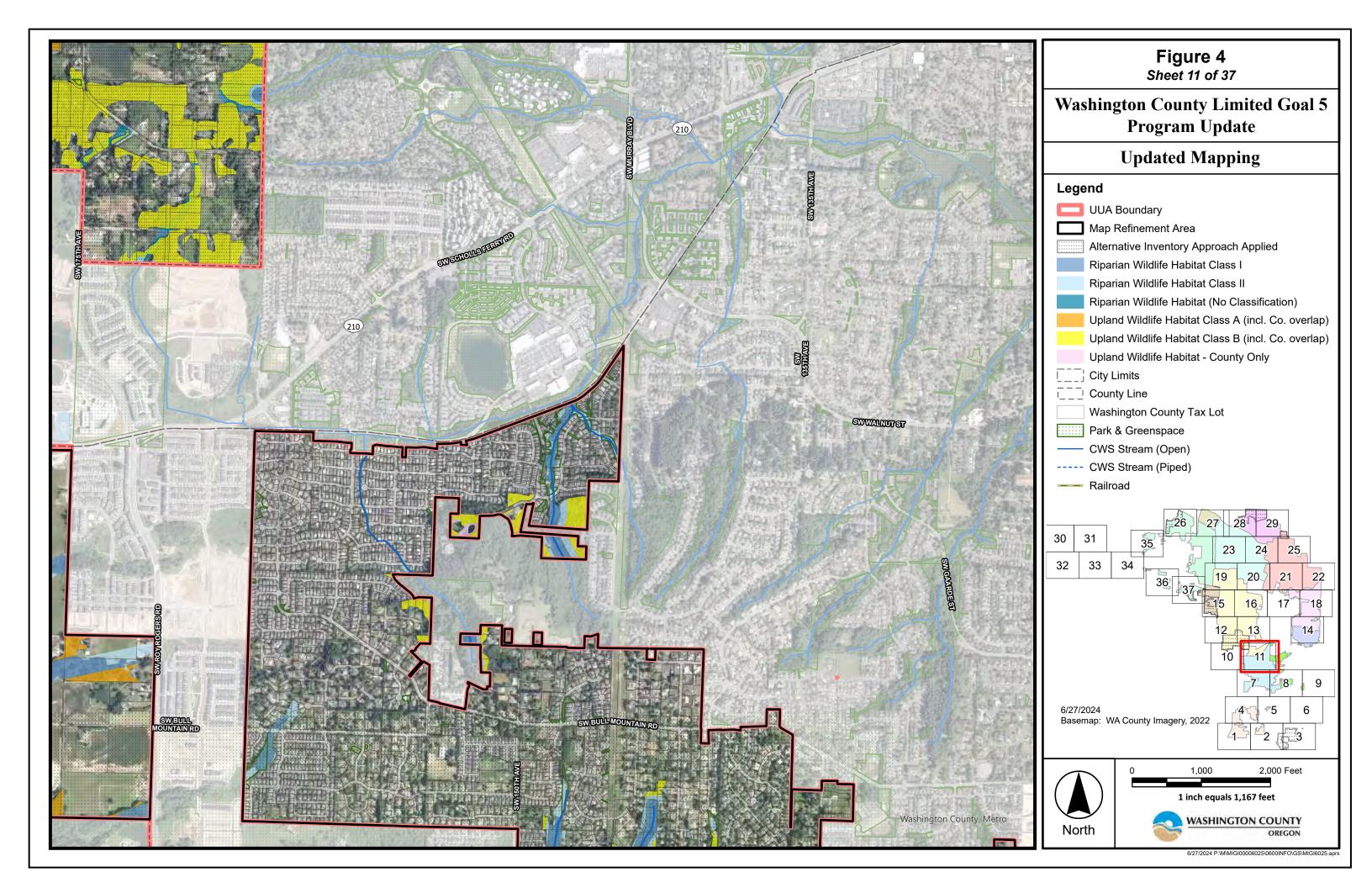


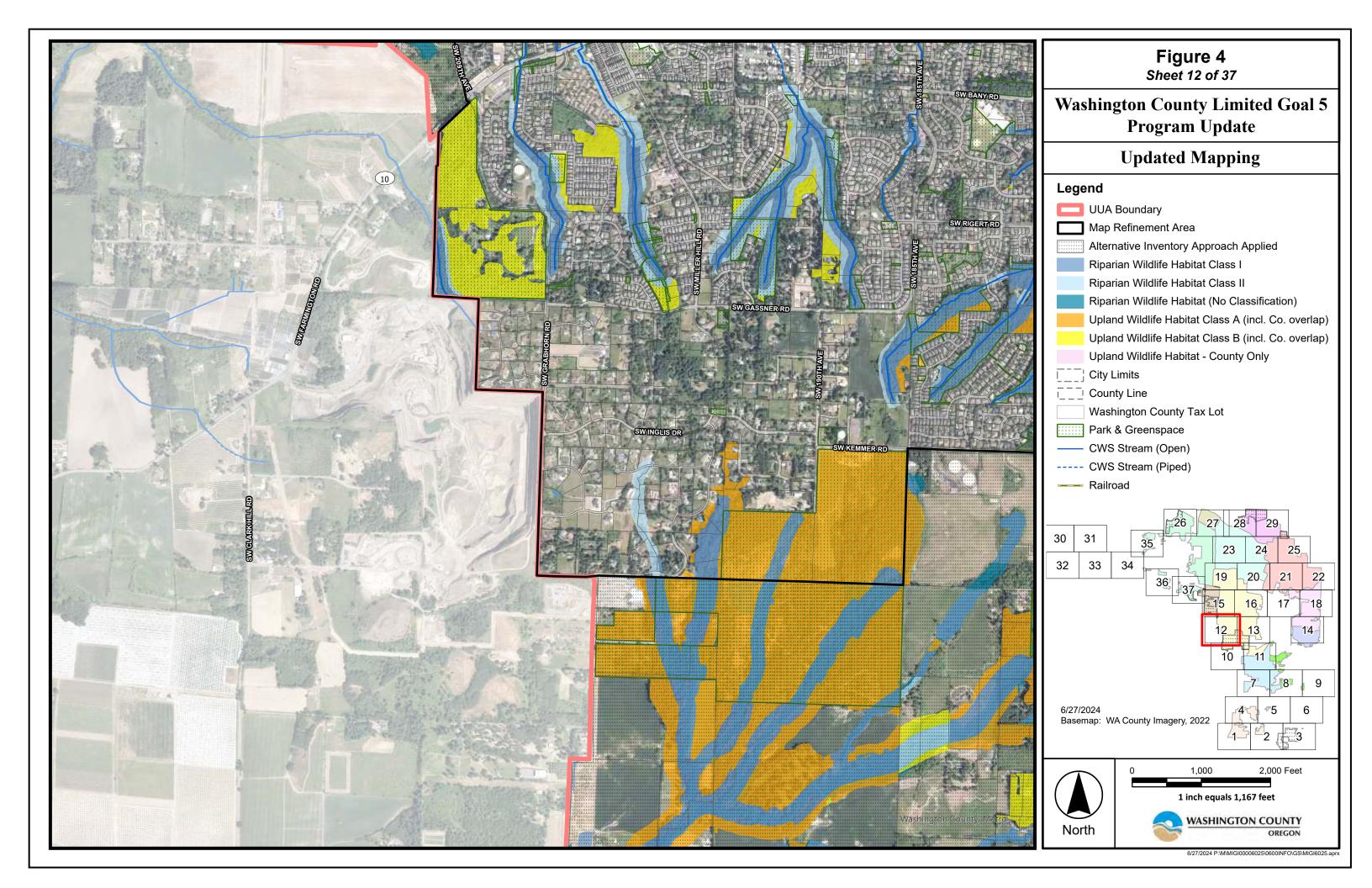


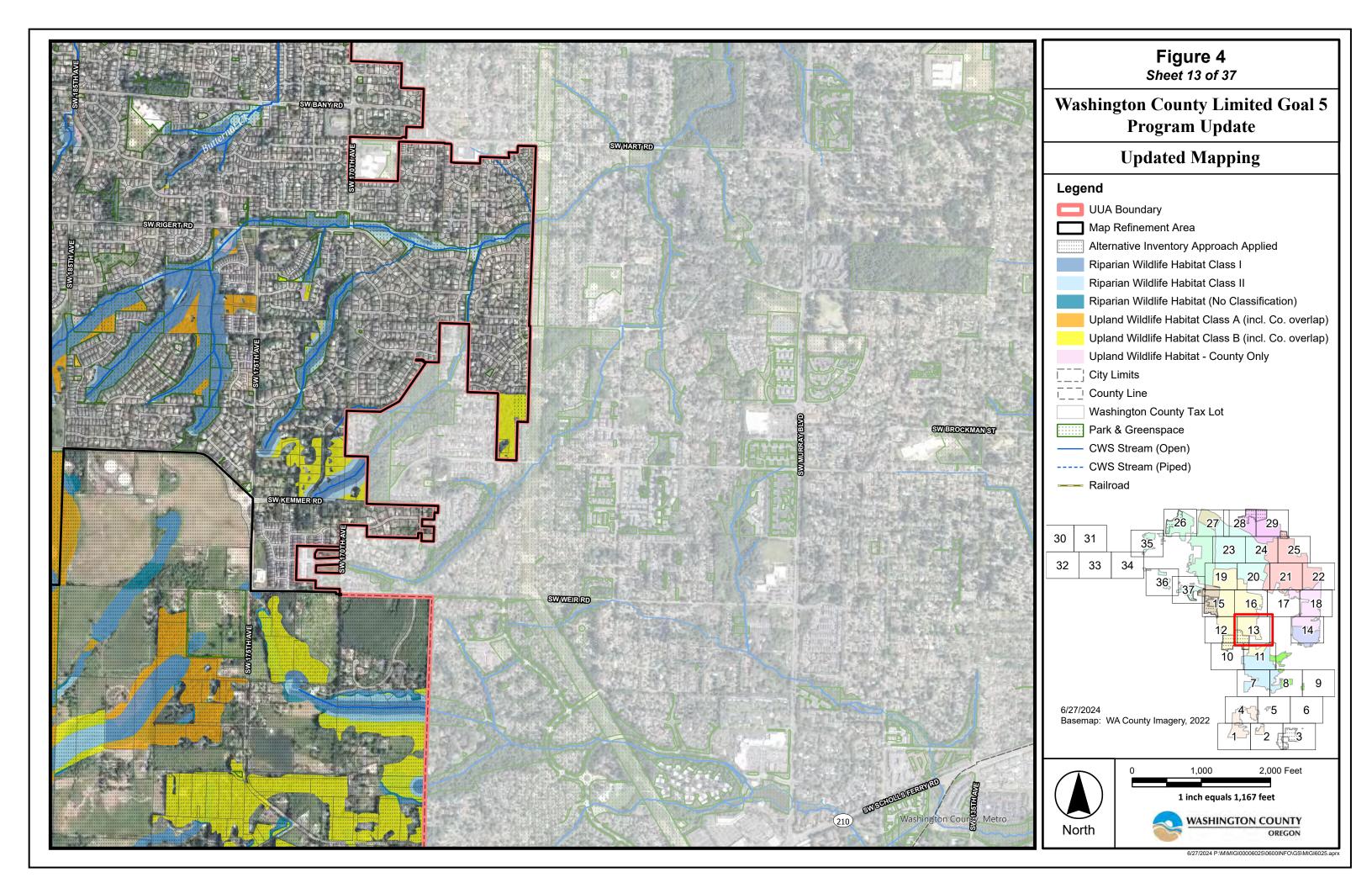


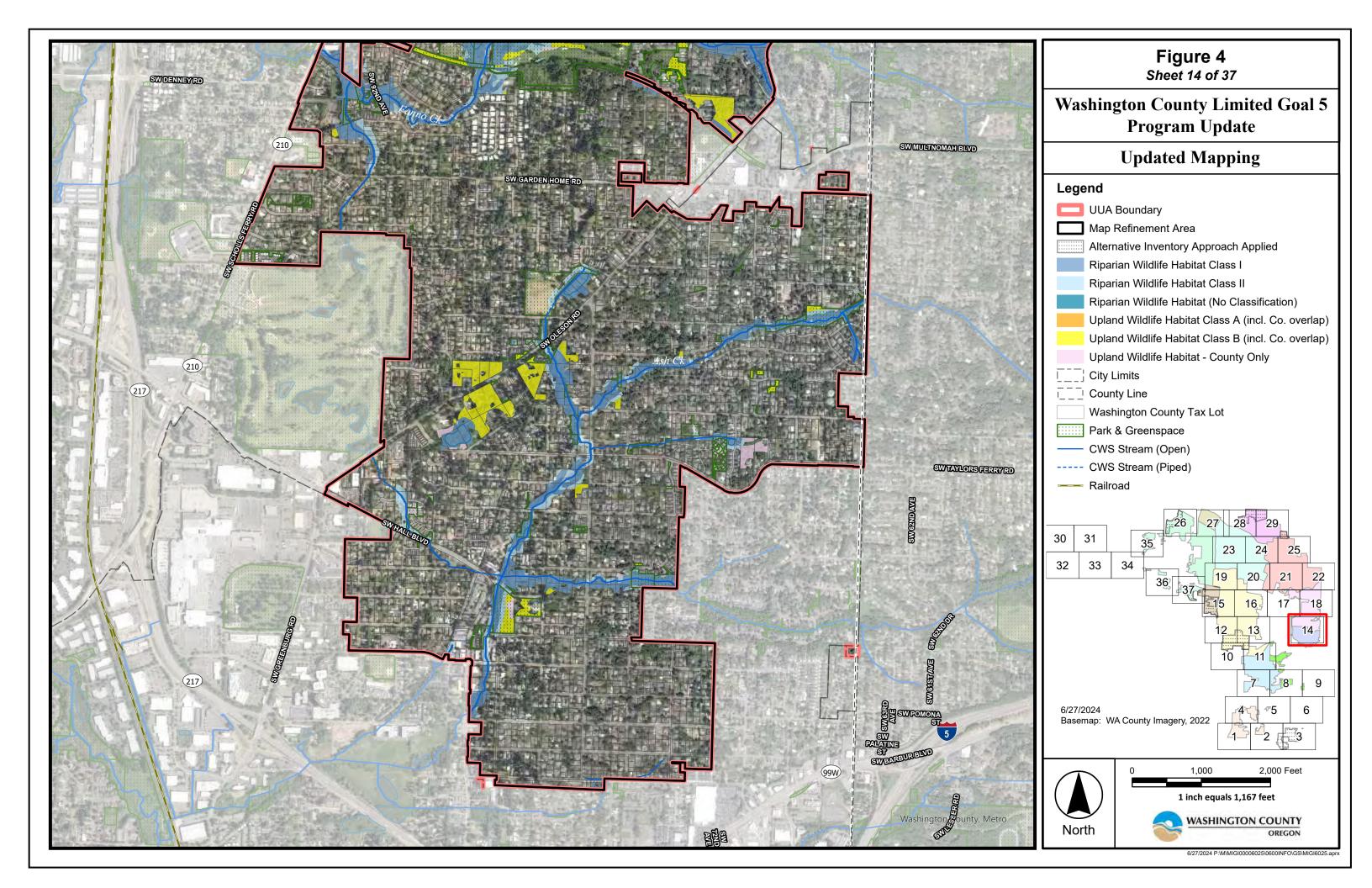


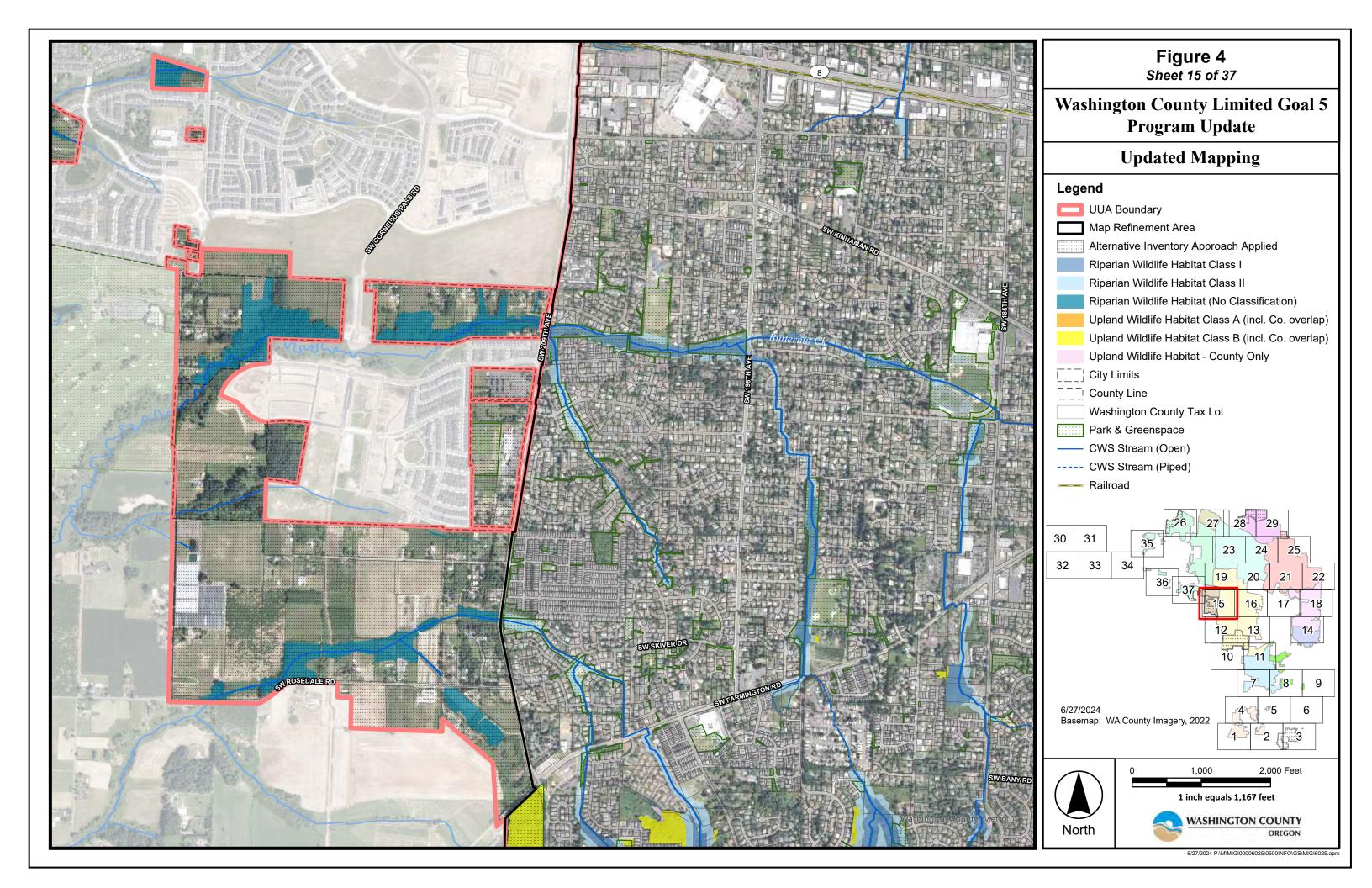


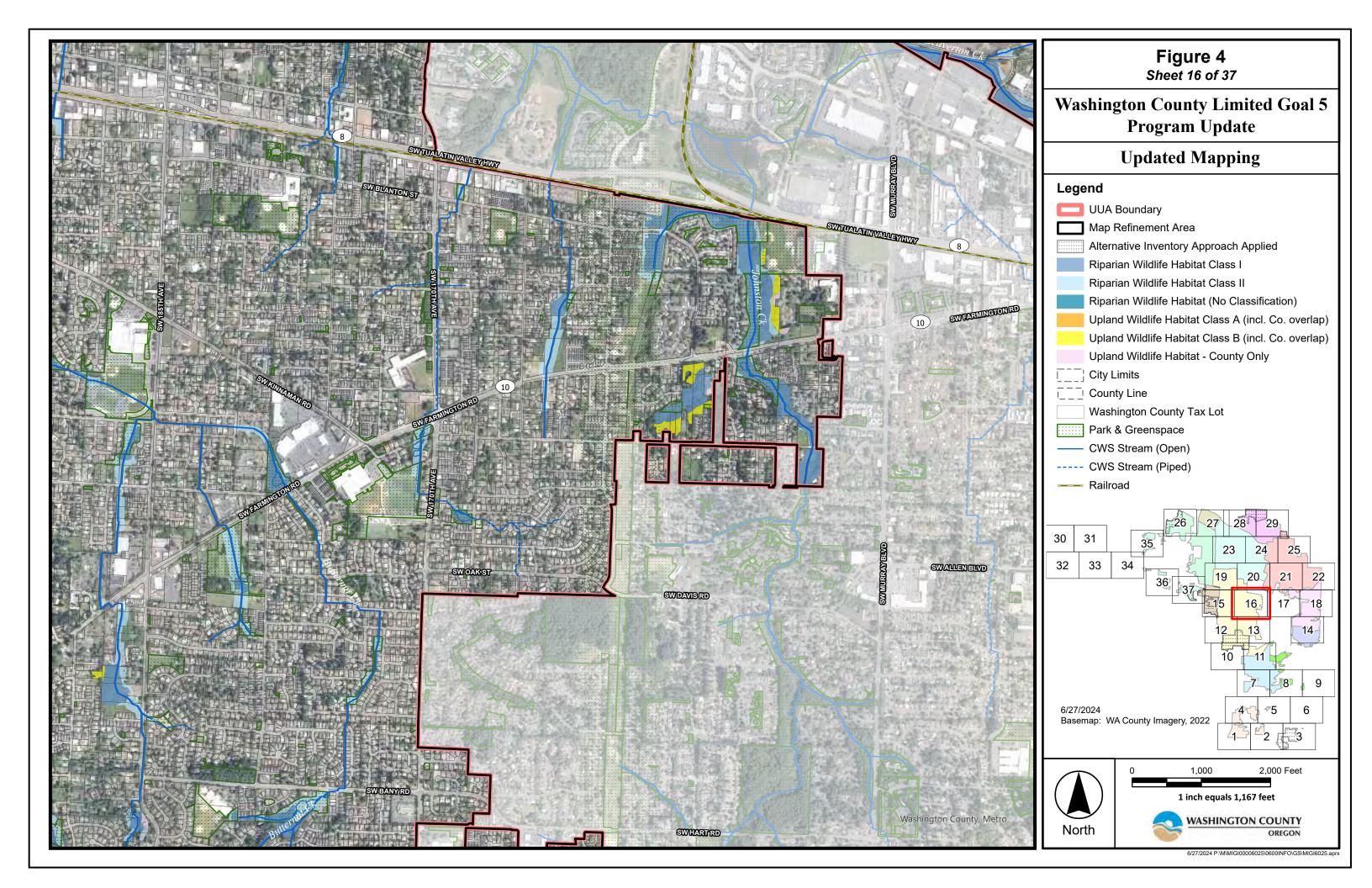


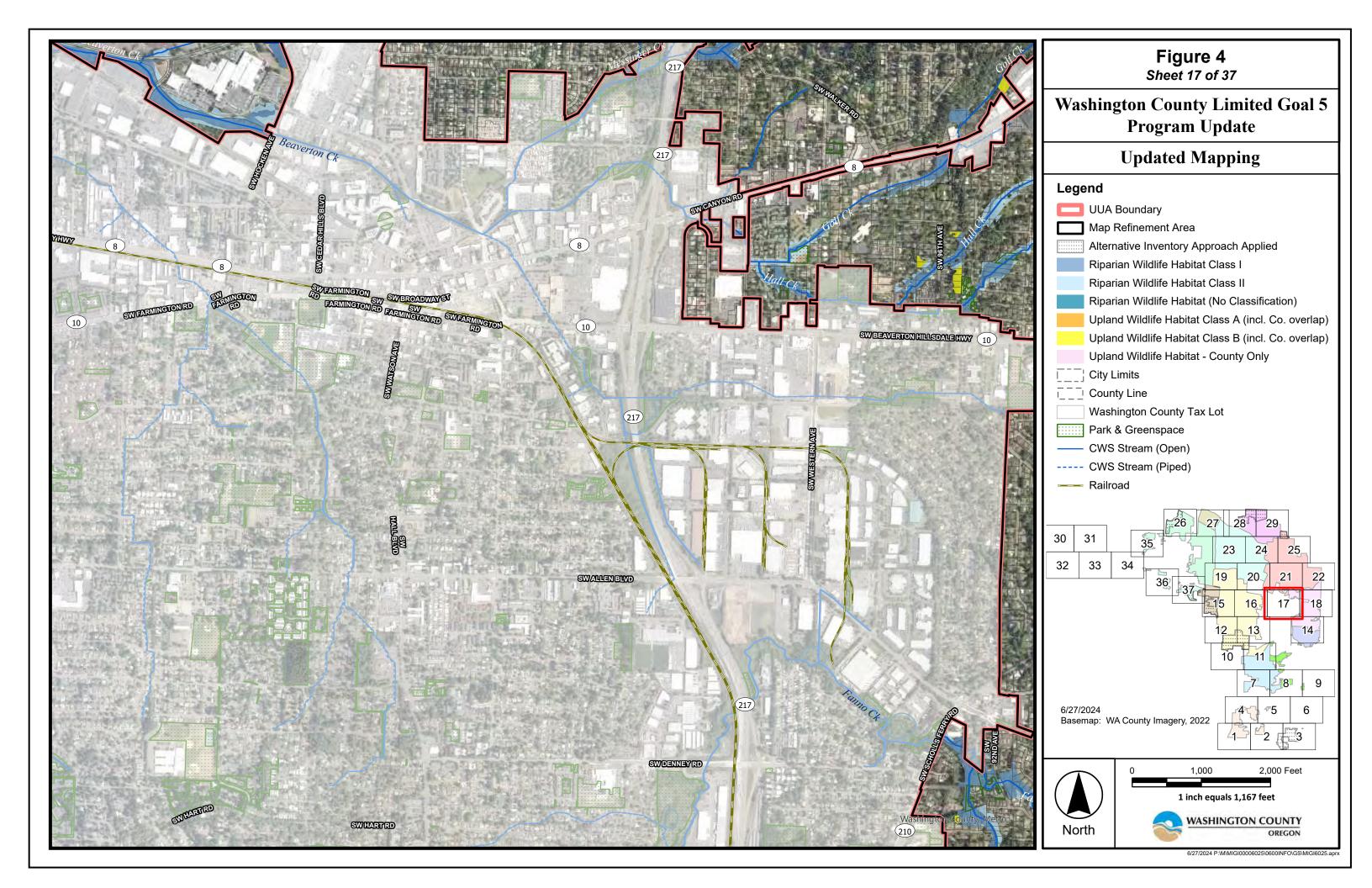


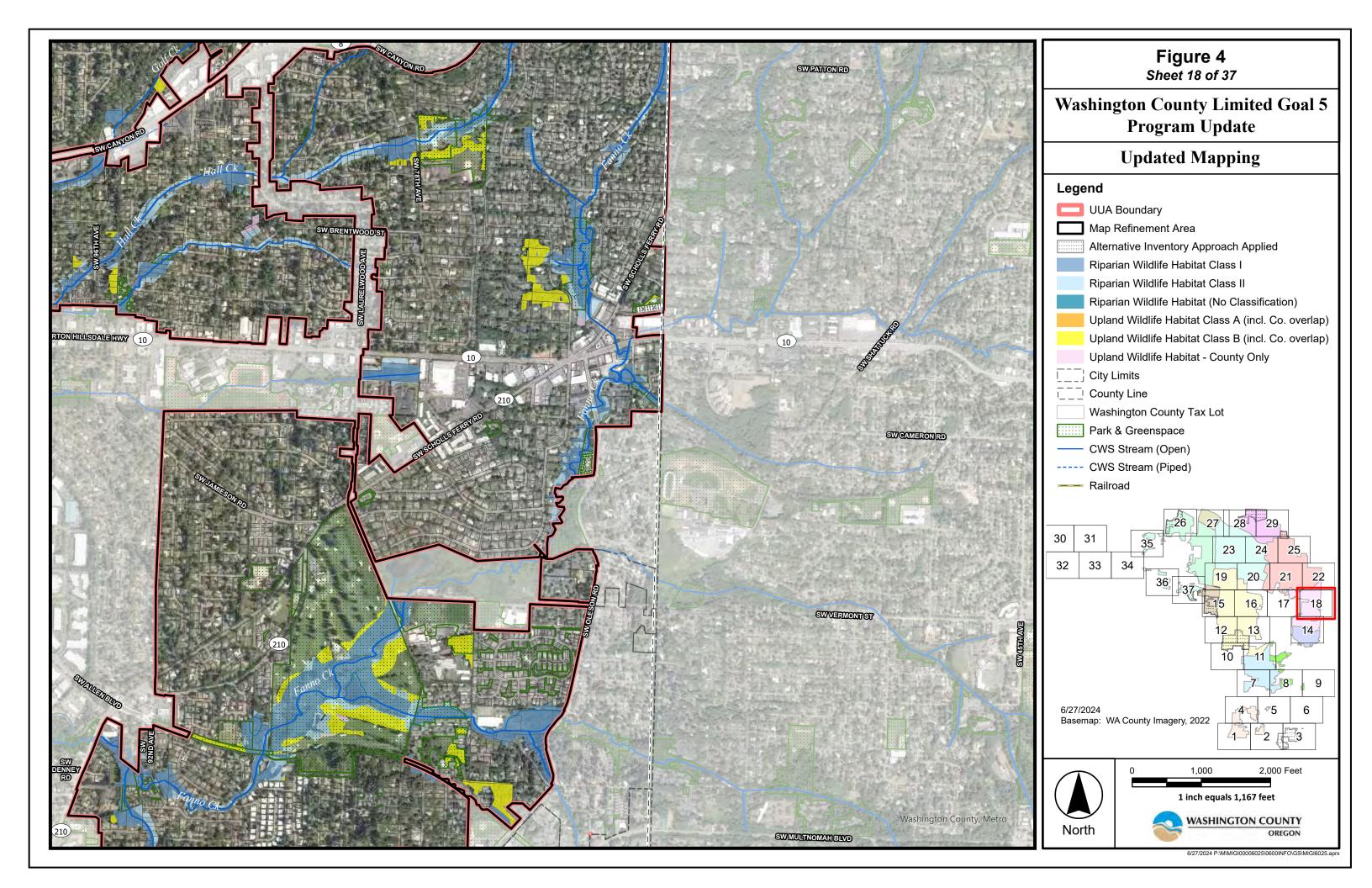


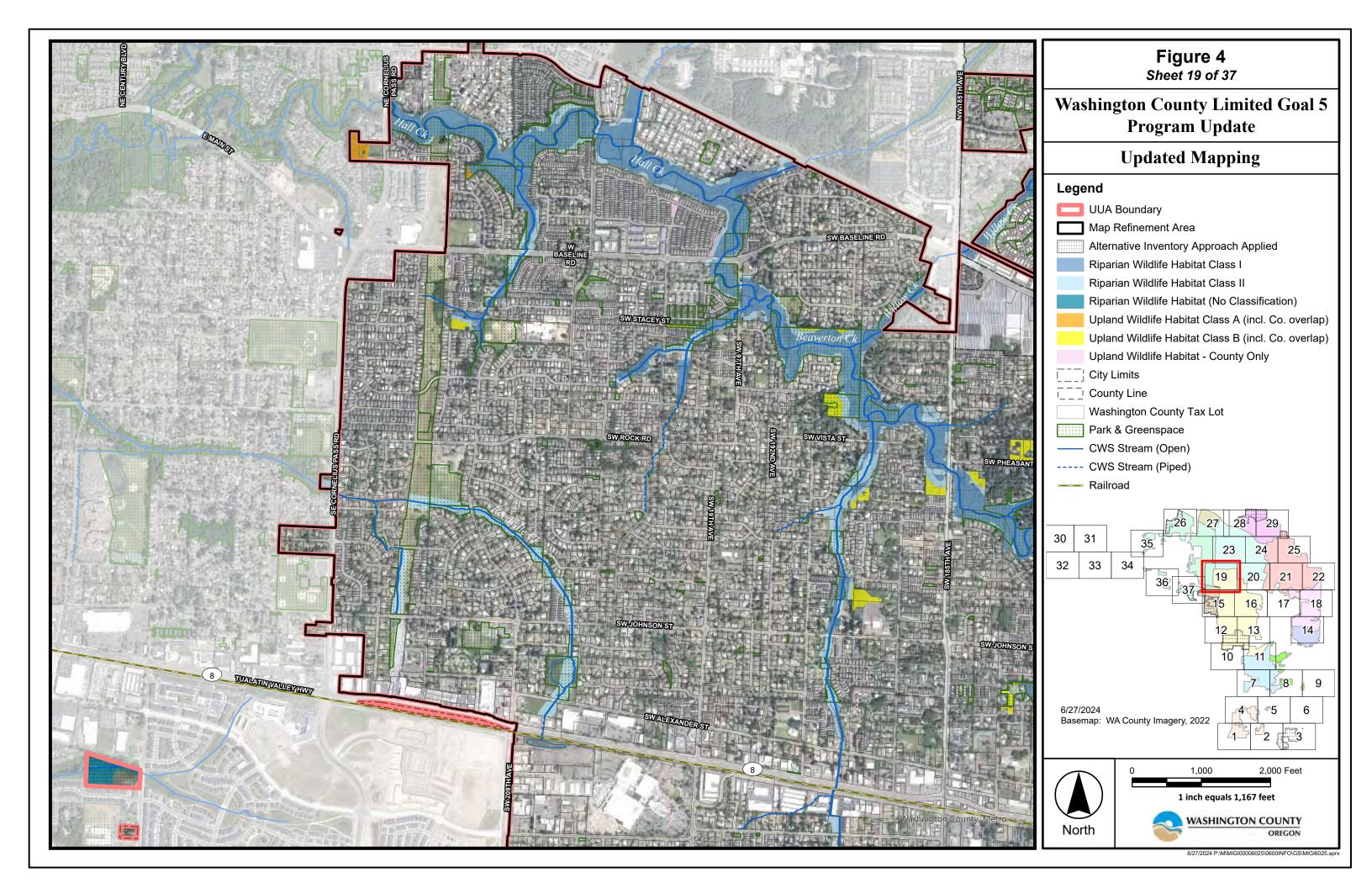


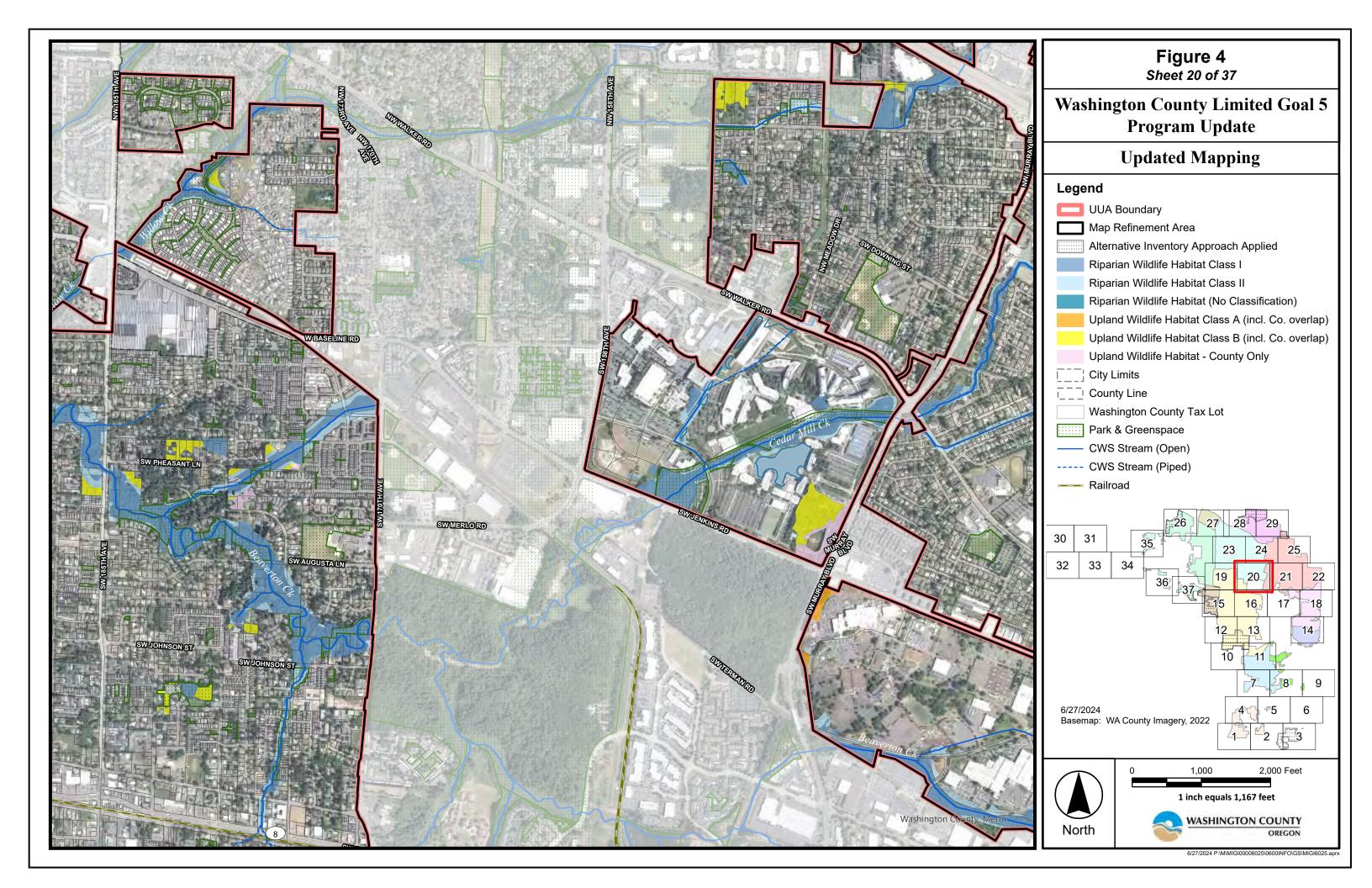


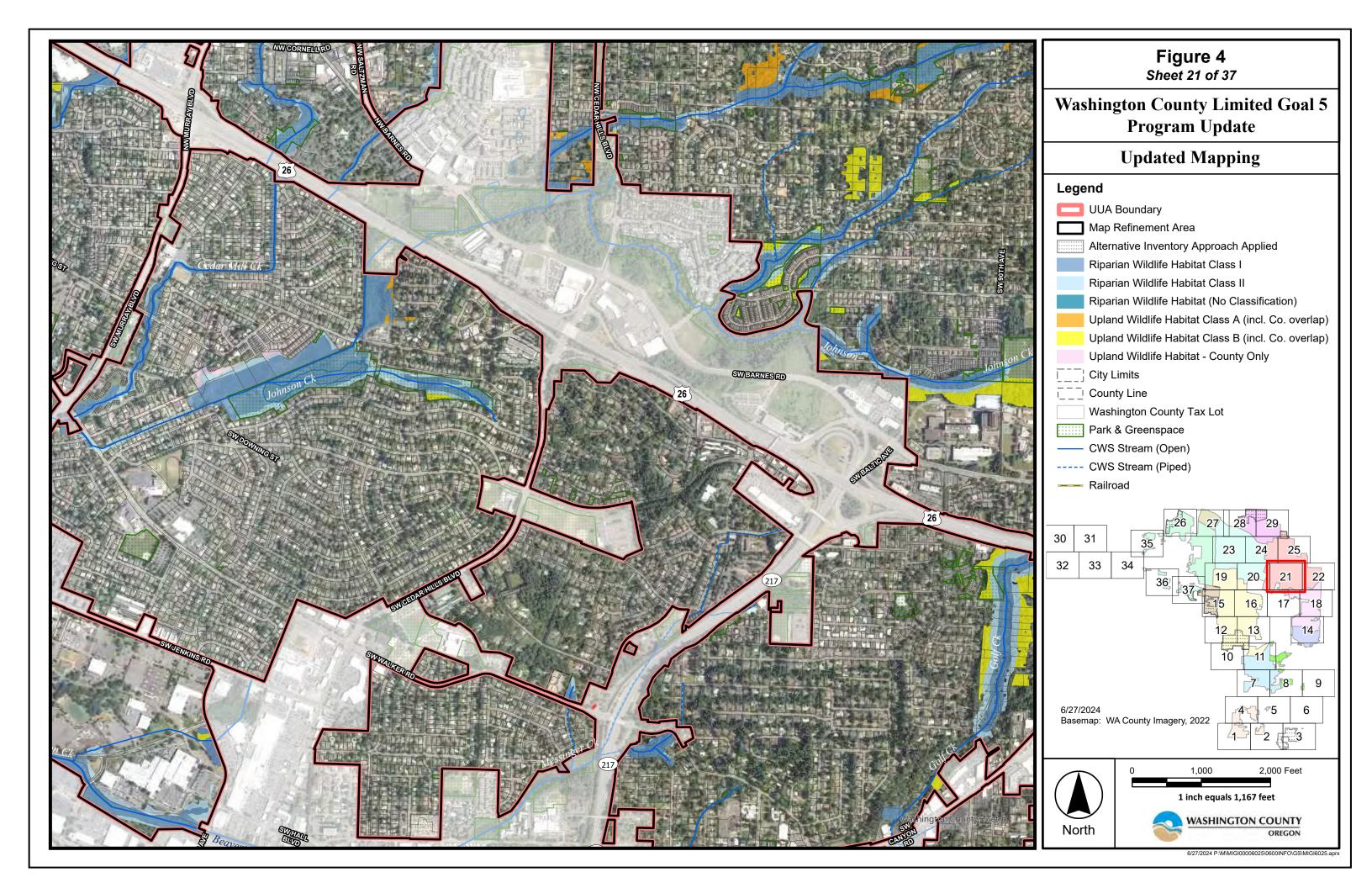


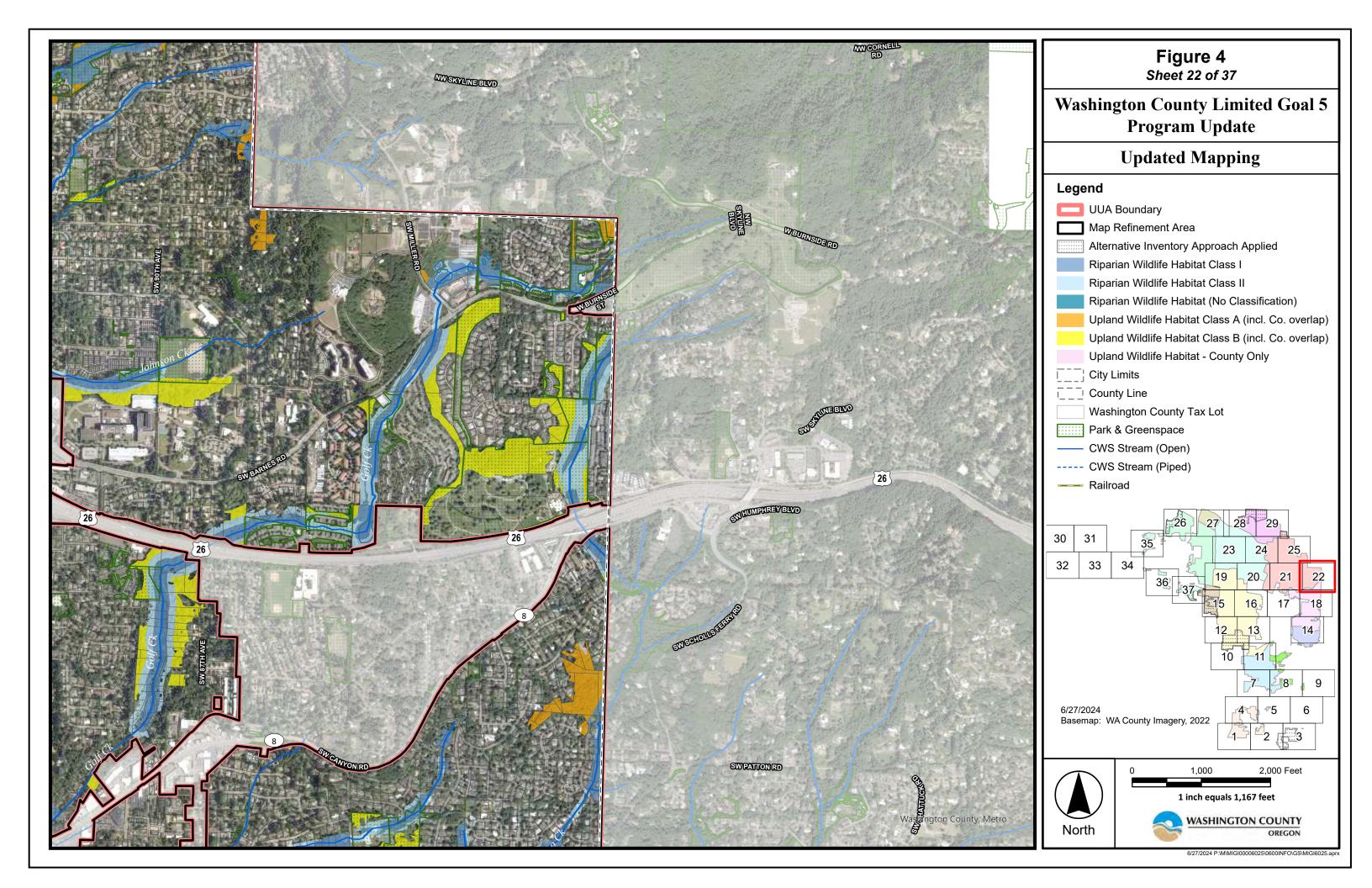


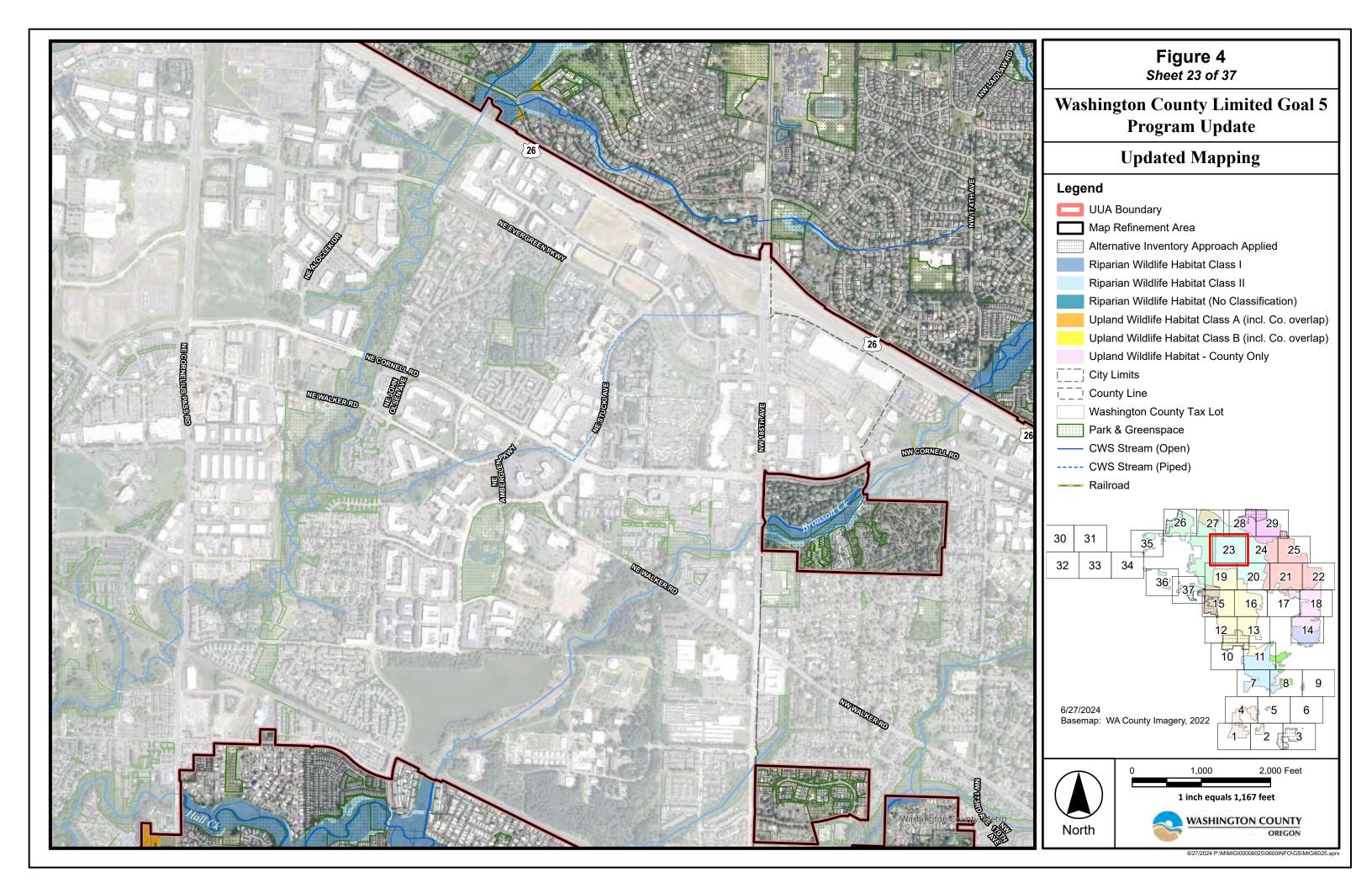


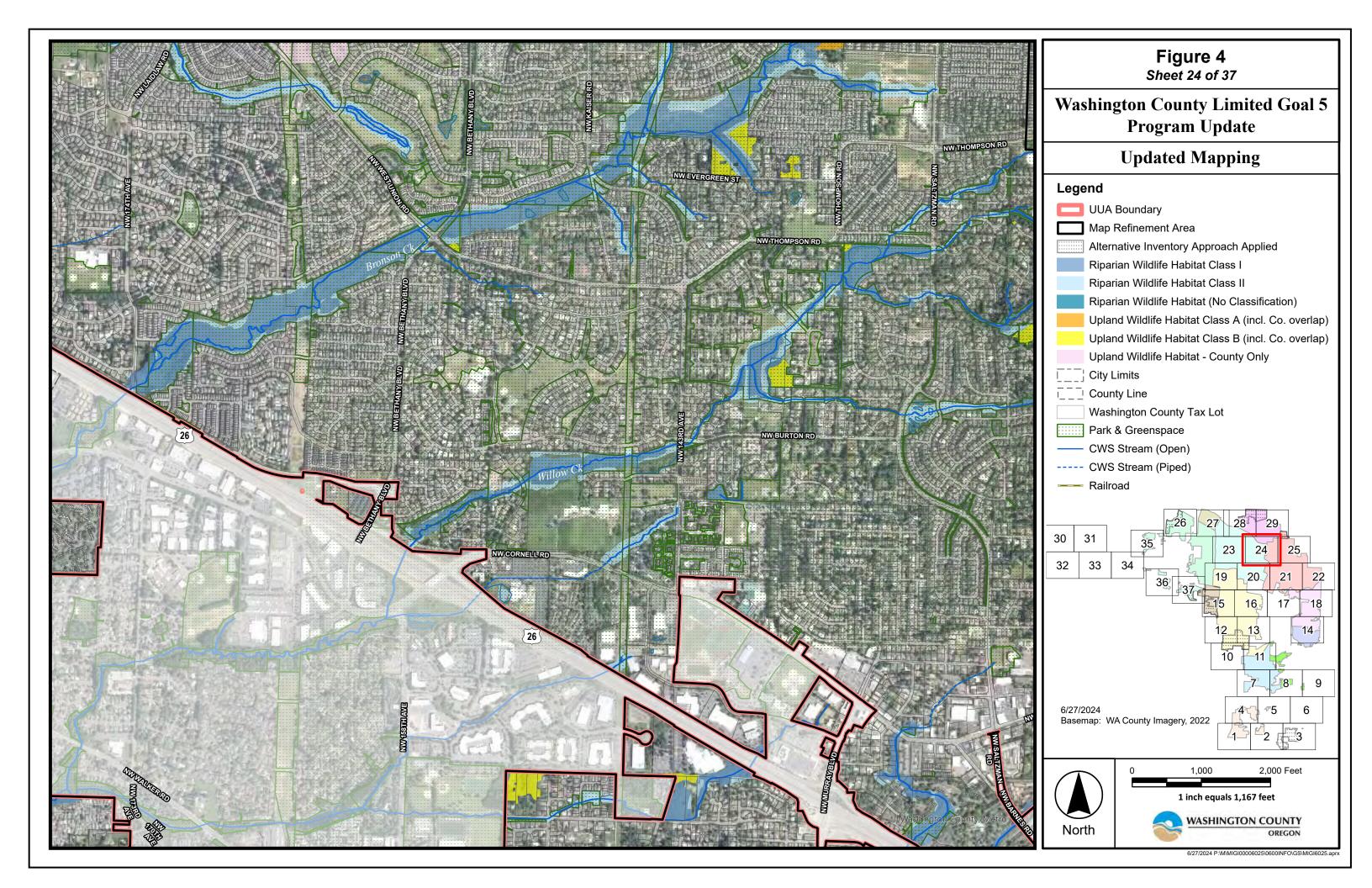


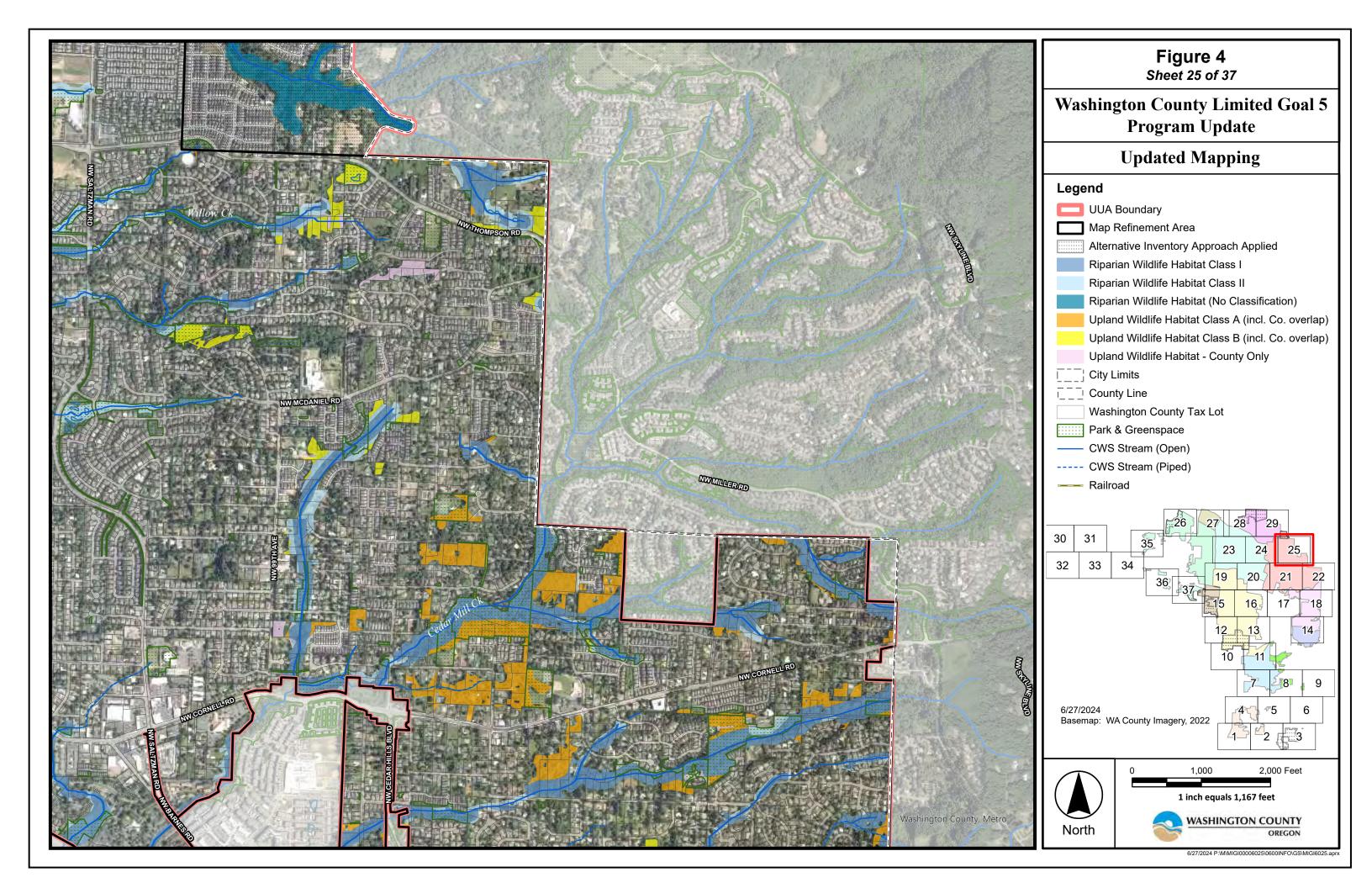


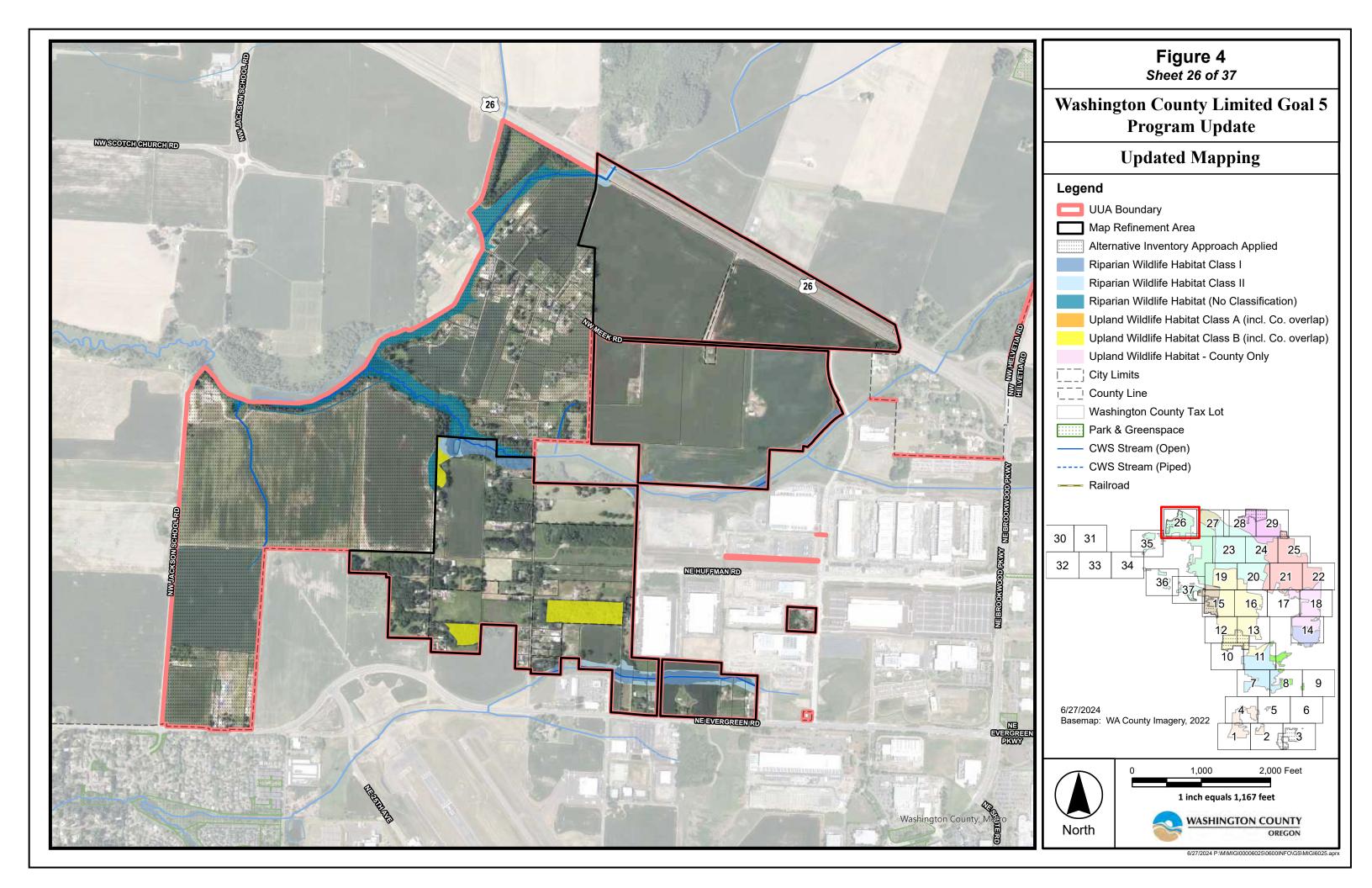


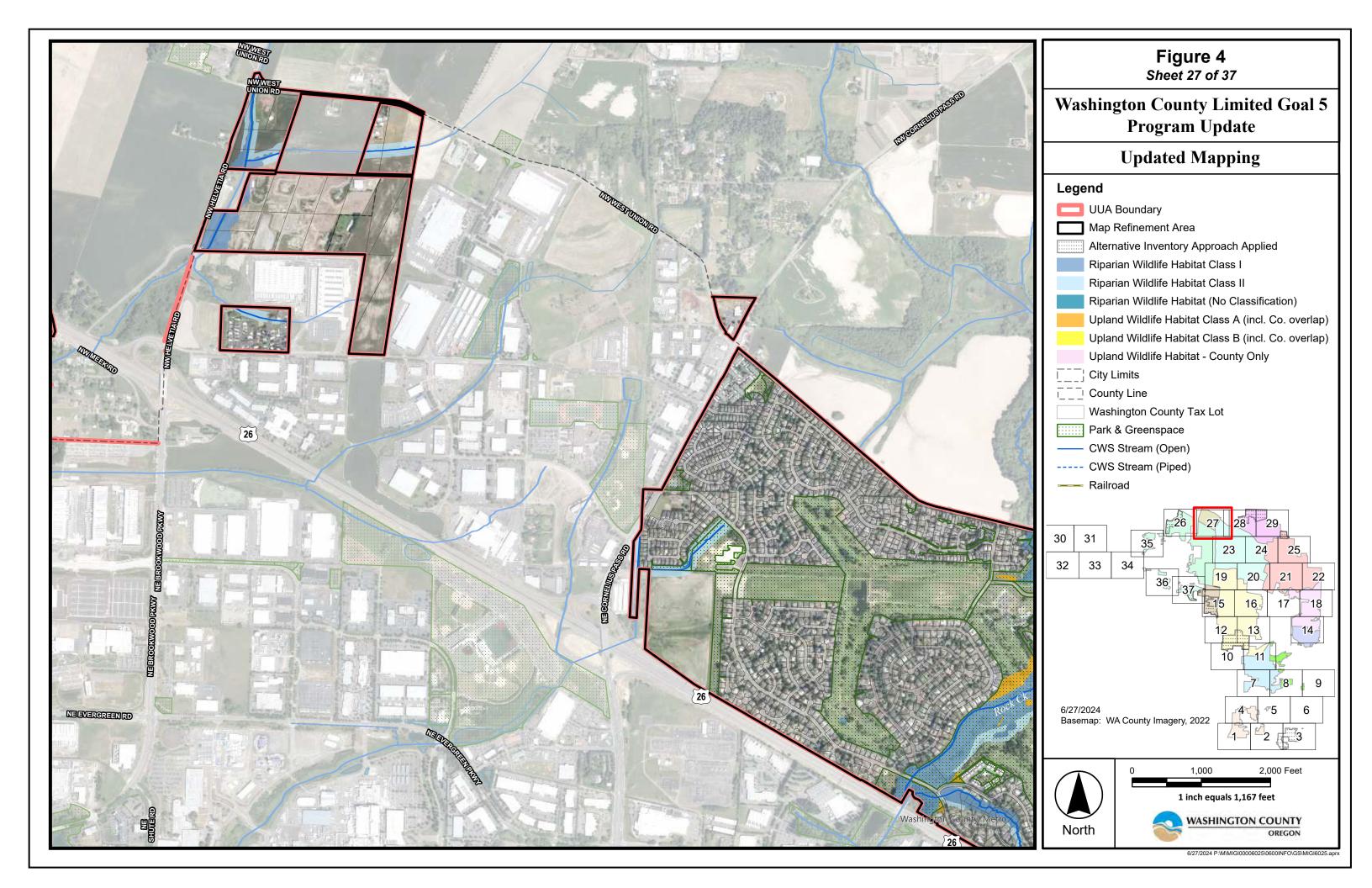


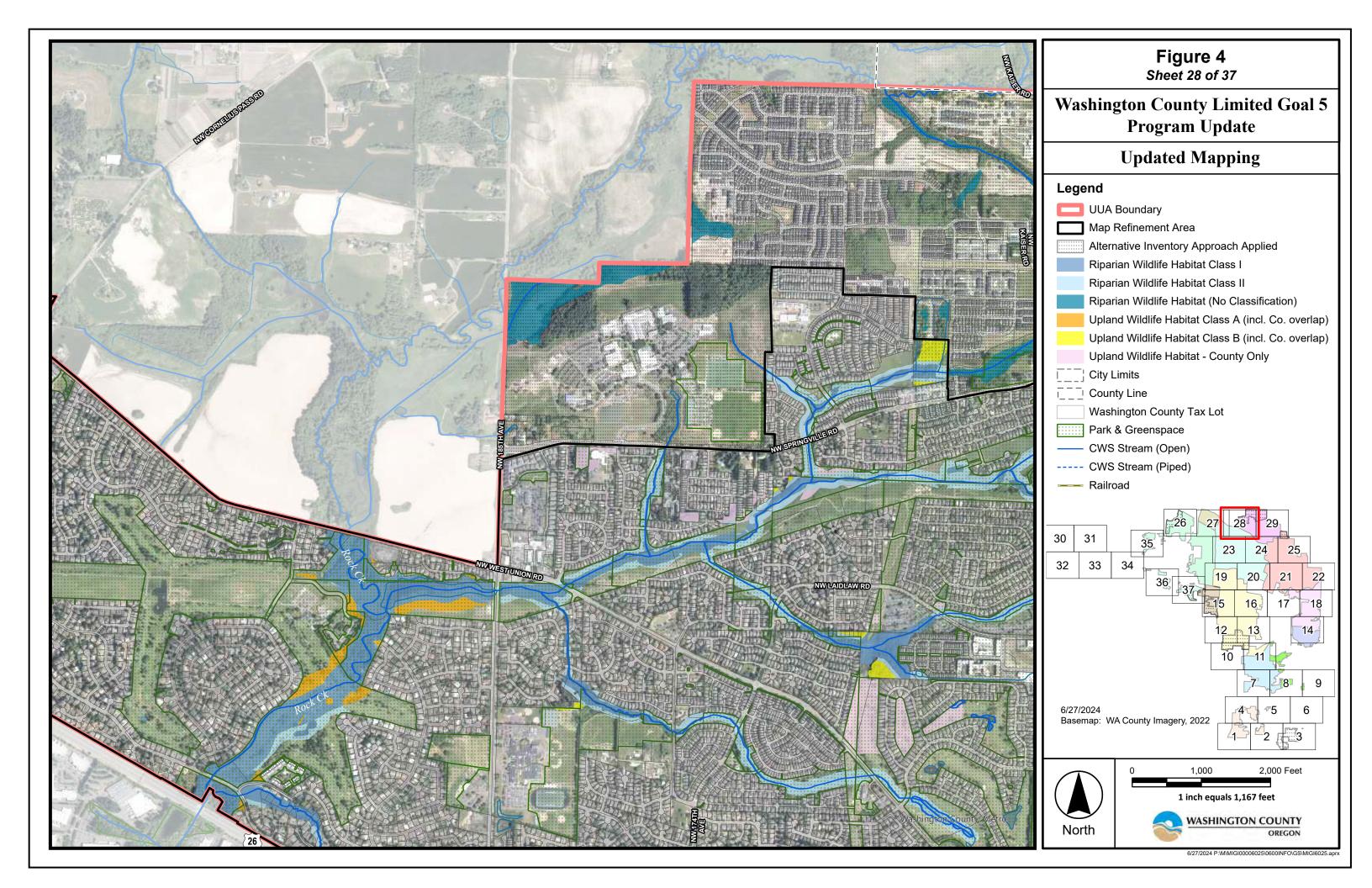


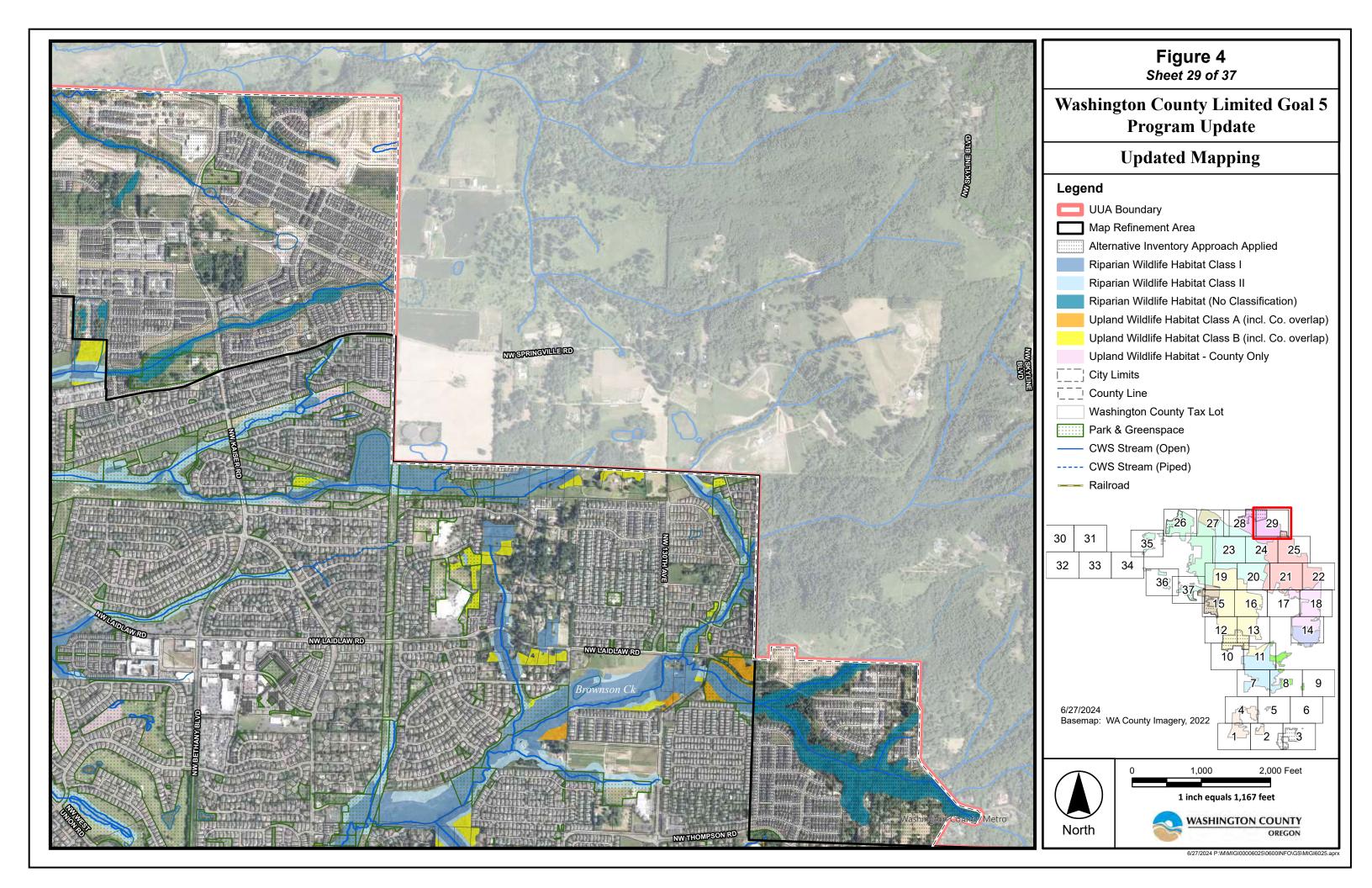


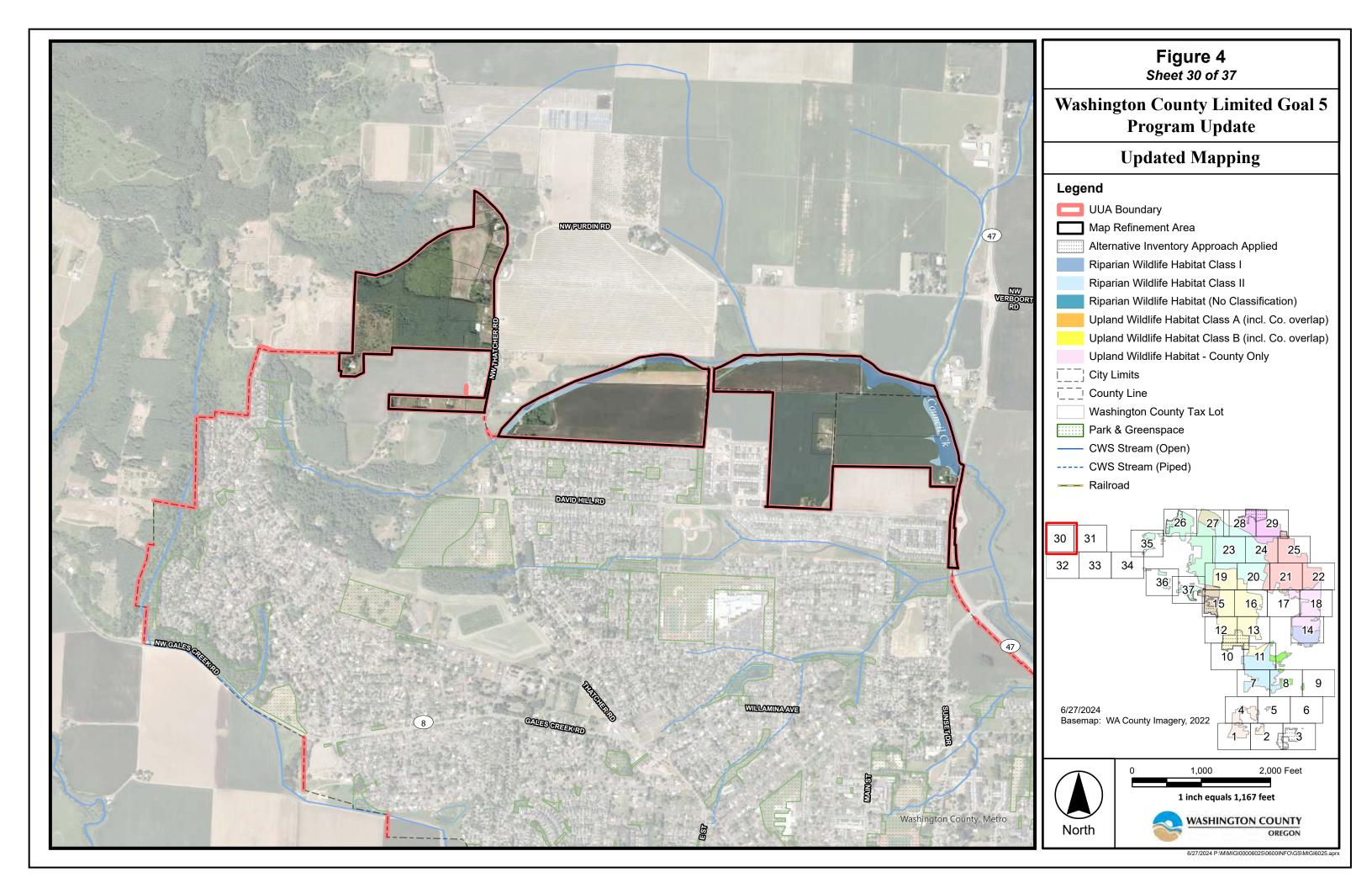


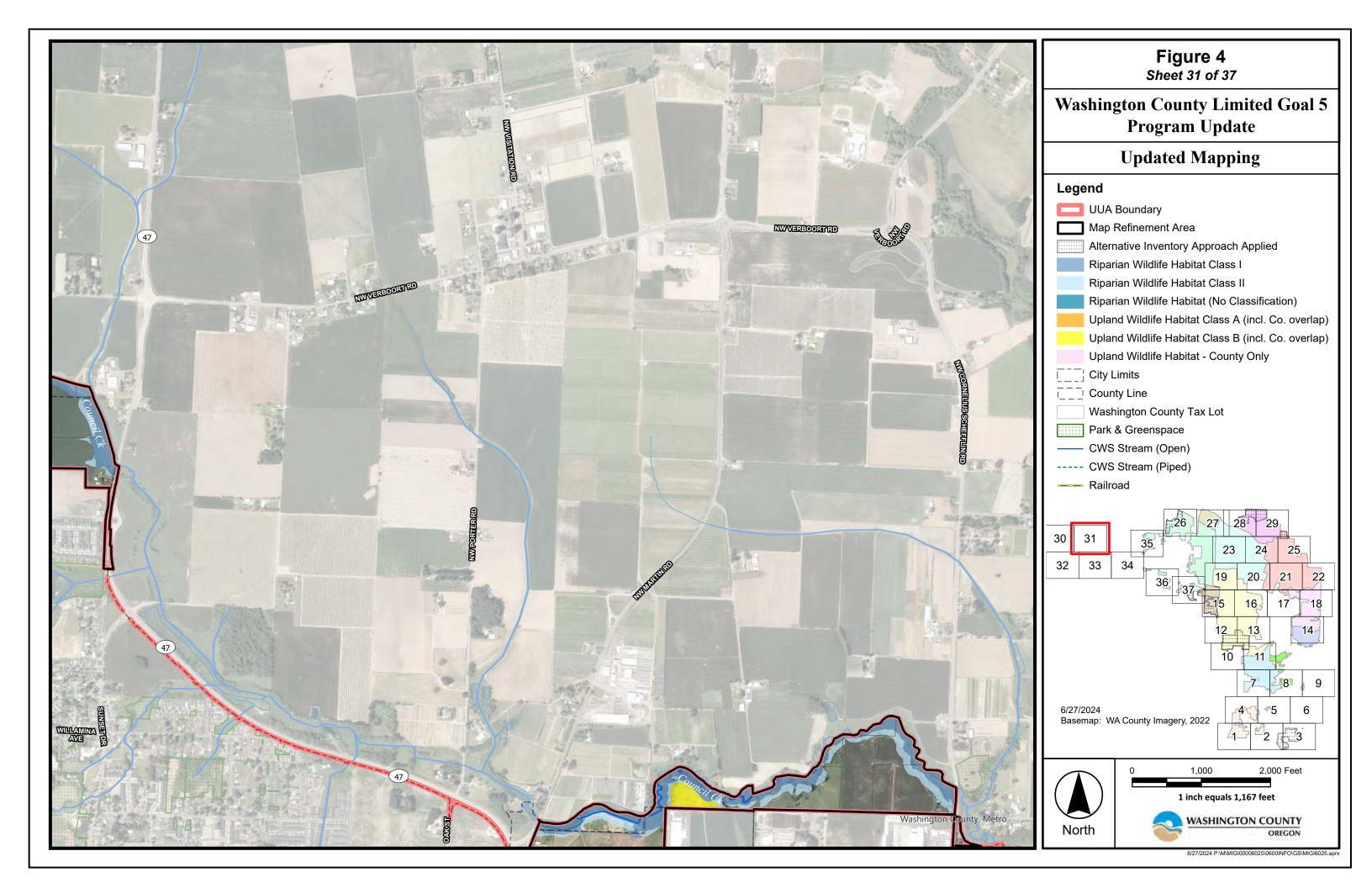


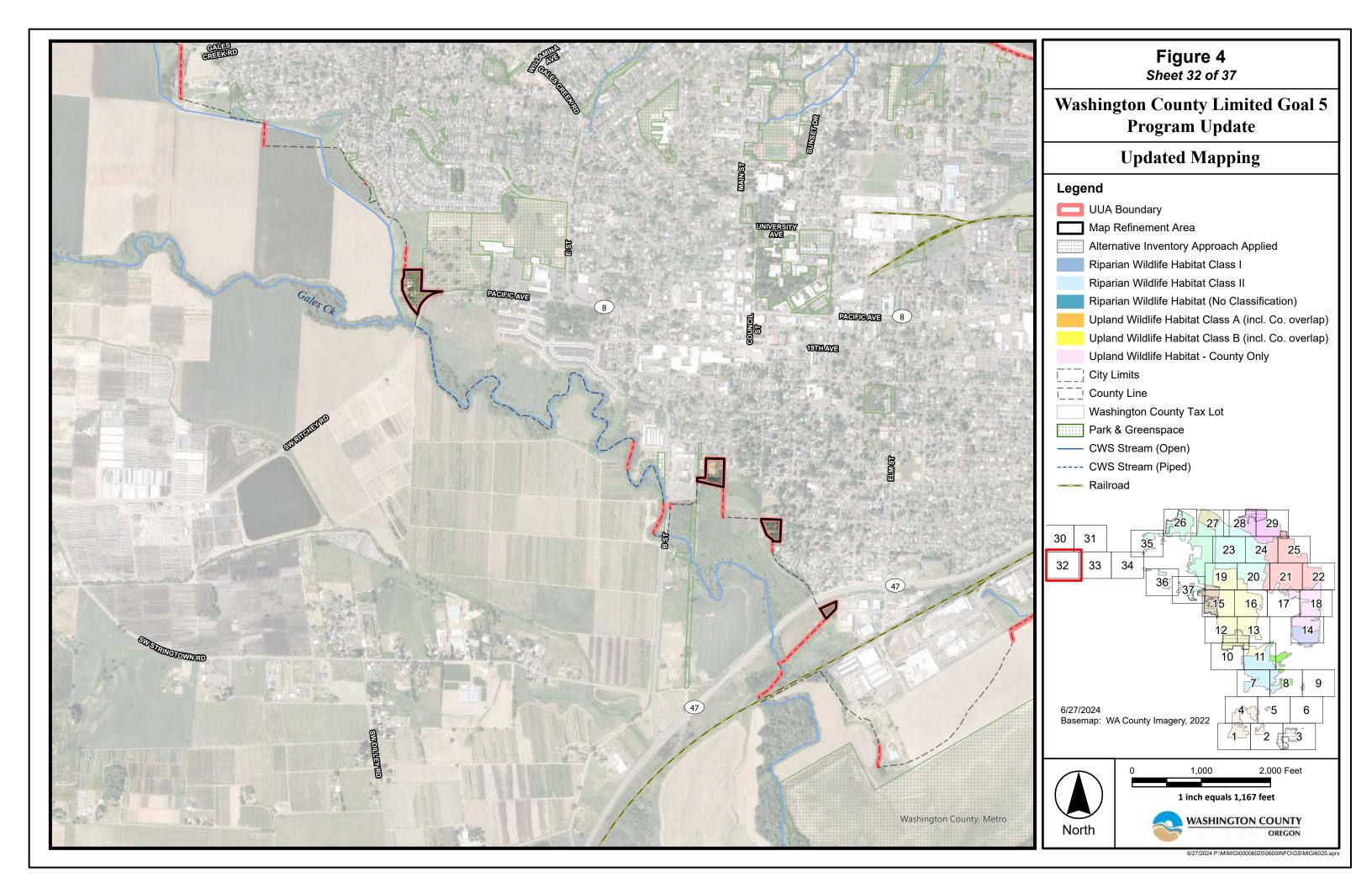


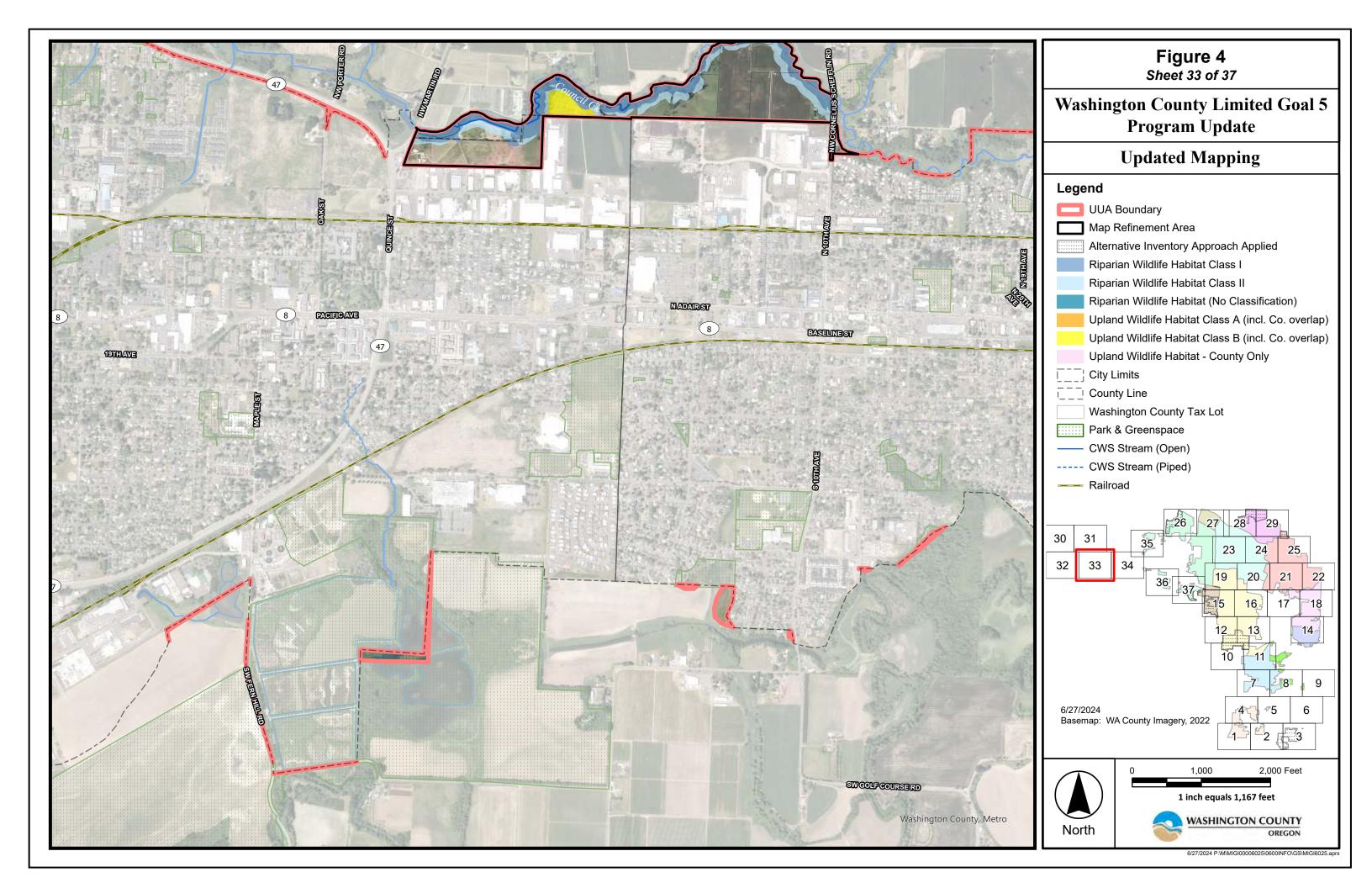


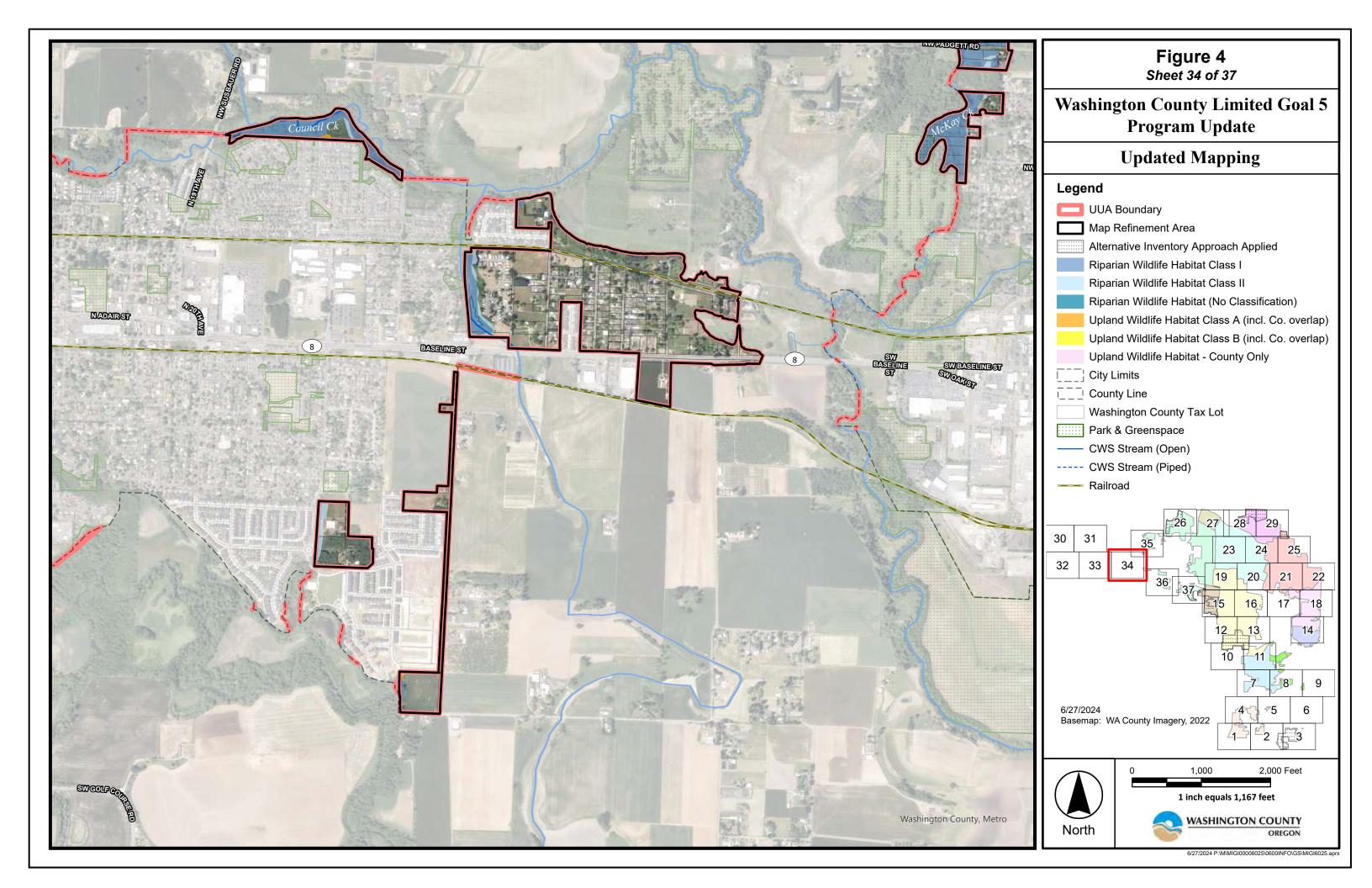


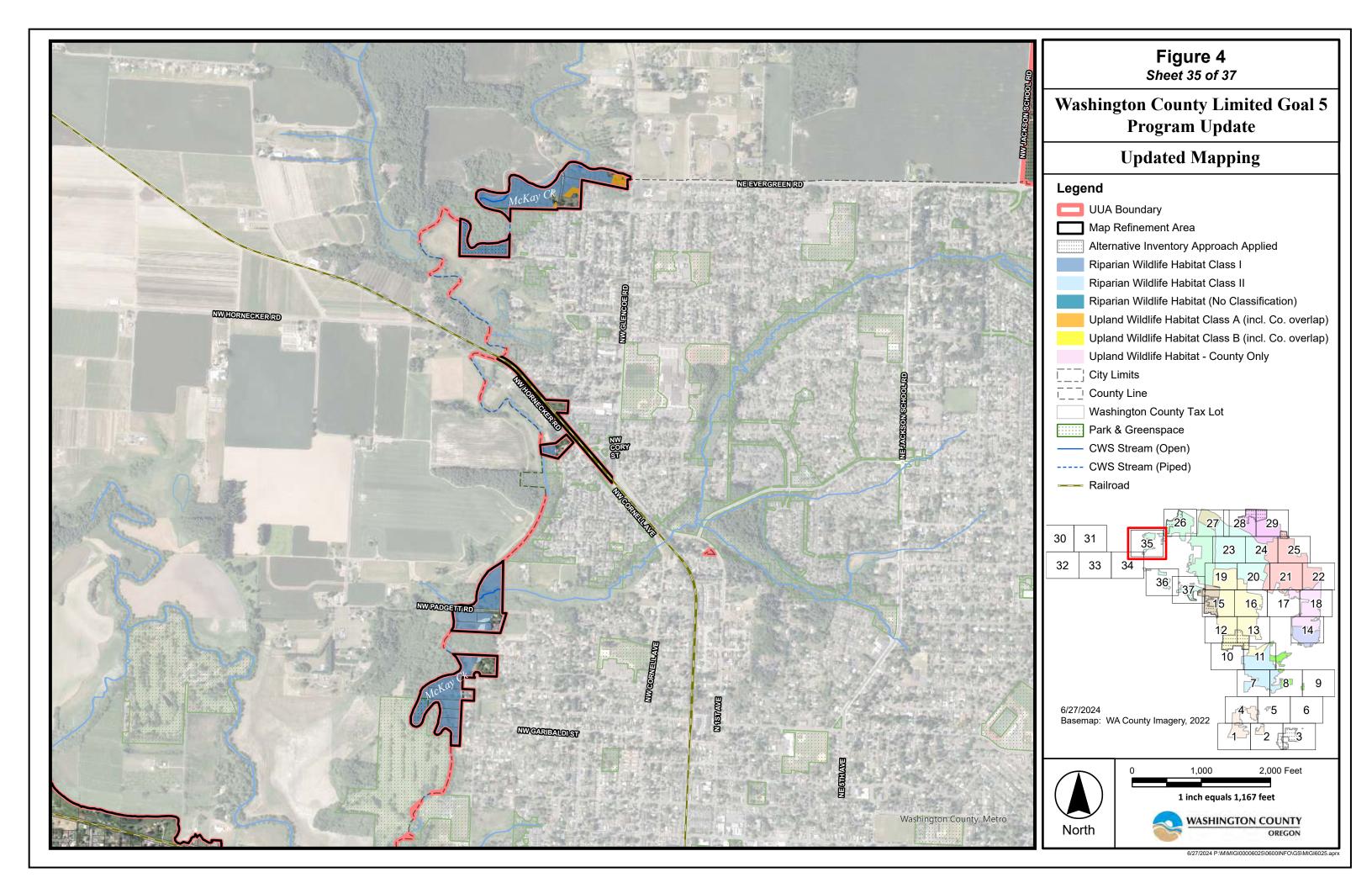


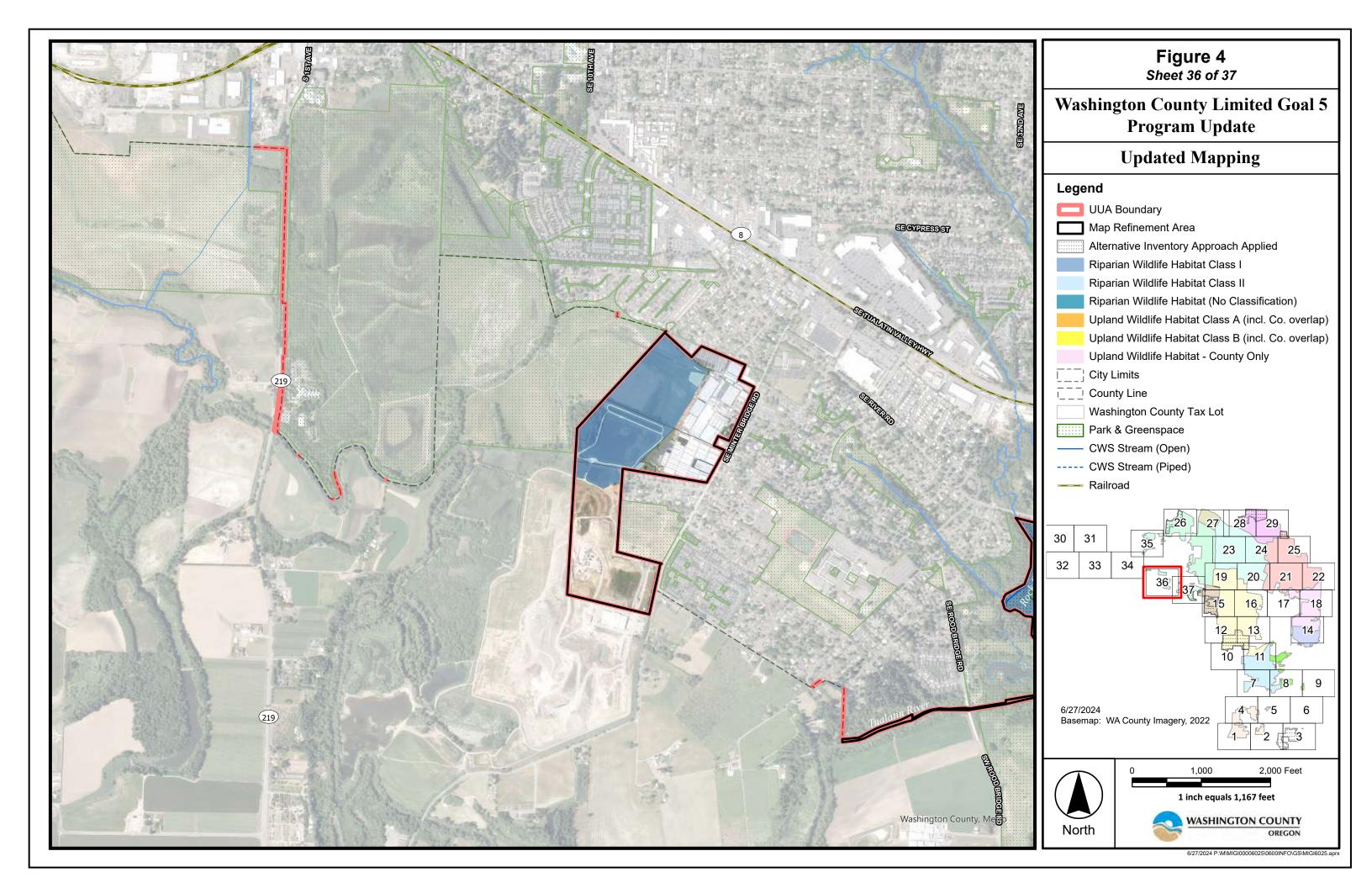


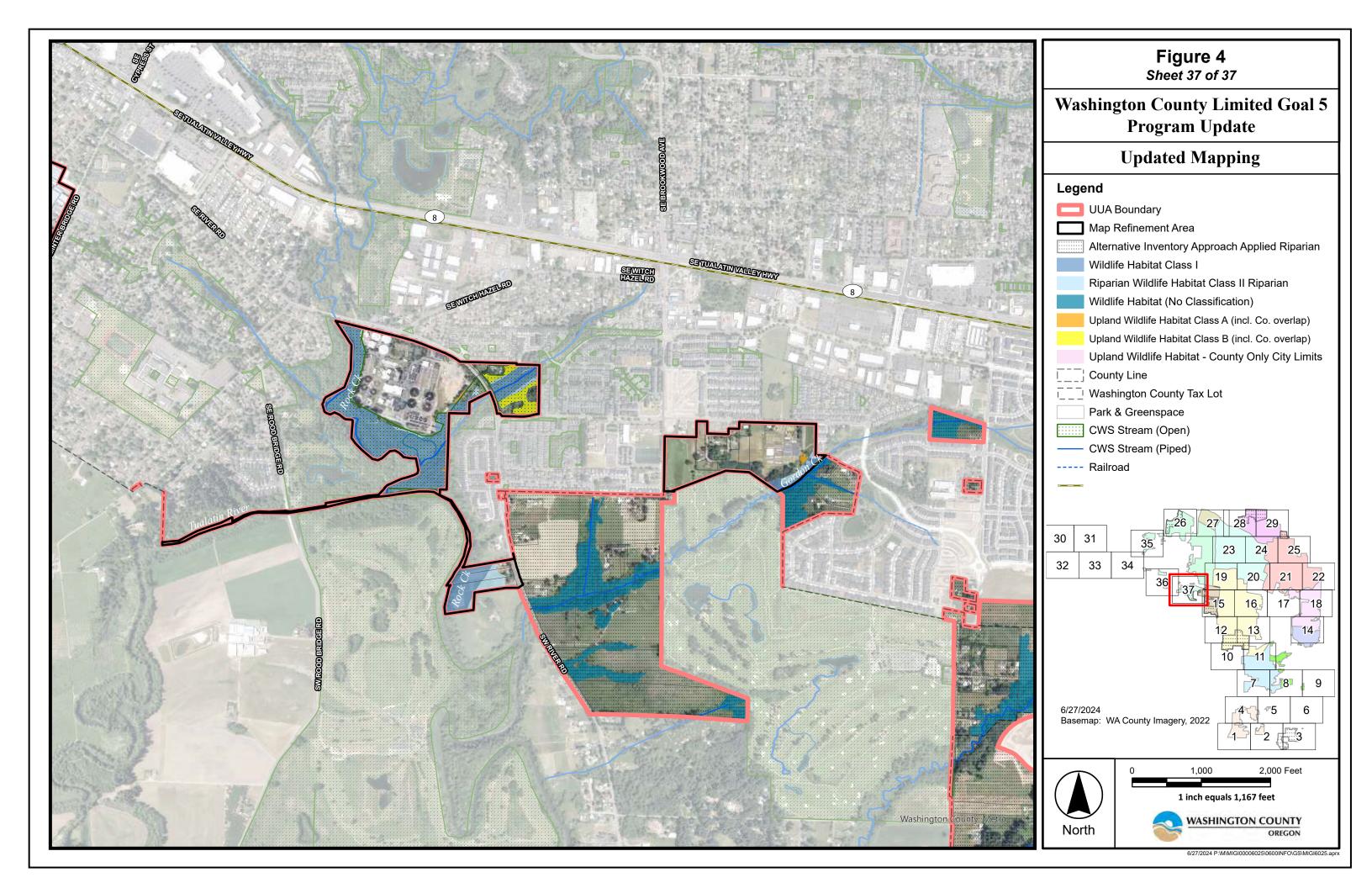












## **APPENDIX D: LETTER FROM CITY OF TUALATIN**





May 31, 2024

Theresa Cherniak, Principal Planner Washington County Land Use & Transportation 155 N First Avenue, Suite 350 MS14 Hillsboro, OR 97124

RE: Tualatin Compliance with Statewide Planning Goal 5 Letter

Ms. Cherniak,

Thank you for meeting with us in April to discuss Washington County's efforts to inventory and map Significant Natural Resources in compliance with Statewide Planning Goal 5 and Senate Bill 1051 to apply clear and objective standards to all housing inside an urban growth boundary. Tualatin recognizes and appreciates Washington County's extensive efforts to comply with these standards. We also appreciate your shared partnership managing land shared within the urban growth boundary and Tualatin's urban planning area, specifically the Basalt Creek Urban Planning Area. During our conversation, Tualatin requested that Washington County limit the Significant Natural Resources Map to inventory Metro Riparian I and II categories in Tualatin's Basalt Creek Planning Area, to be consistent with our adopted regulations that include the Basalt Creek Urban Planning Area. Through these adopted regulations and participation in the Tualatin Basin Plan, Tualatin achieves protection and enhancement of environmentally sensitive areas and compliance with Metro Titles 3 and 13, and thus Statewide Planning Goal 5.

Drainage, storm water and surface water runoff in Tualatin are addressed in the Tualatin Drainage Plan, the Surface Water Management Ordinance (SWM Ordinance) (Ord. No. 846-91) and Tualatin Development Code Chapter 74. The surface water management policies and requirements in the SWM Ordinance were adopted by the City and other jurisdictions in the Tualatin River Basin to implement Clean Water Services requirements for control of sedimentation and water quality, which had been found by Metro to be consistent with Title 3, thus bringing Tualatin into conformance with Title 3 as well.

Upon annexation of property in the Basalt Creek Urban Planning Area to the City of Tualatin, environmentally sensitive areas will be delineated and protected by Clean Water Services. Under the Tualatin Drainage Plan, environmentally sensitive areas in the City of Tualatin are regulated by Clean Water Service, through Tualatin Development Code Chapter 72. Future development in Tualatin must comply with Clean Water Services' Design and Construction Standards & Service Provider Letters (SPLs) that require protection of vegetated corridors surrounding streams and wetland habitat and require mitigation and enhancement where development impacts are unavoidable.

Please do not hesitate to contact me if you have any questions regarding our request.

Sincerely,

Steve Koper, AICP, Assistant Community Development Director