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memorandum

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to Linda Bentley, City of Olympia
Leonard Bauer, City of Olympia

from Ilon Logan and Christina Hersum, ESA

subject Critical Areas Ordinance Update Phase II: Locally Important Species and Associated Habitats Overview and Options Memo

The City of Olympia (City) is concluding its Critical Areas Ordinance (CAO) update process in accordance with the requirements of the Growth Management Act (GMA) (RCW 36.70A). The City has performed a review of current best available science (BAS) for informing policies and regulations that protect and manage activities in and near critical areas and applied special considerations to salmonids. The *Best Available Science* memo (ESA, 2016) incorporates the findings of previous review efforts conducted by the City and assesses the existing regulations for consistency with current BAS.

For Phase II of the CAO update process, the City has elected to research, evaluate, and engage community members and elected officials in identifying potential protections for locally important species and associated habitats. The City is interested in multiple wildlife species, but in particular, great blue heron. ESA has prepared this memo to incorporate findings from the BAS science review with information from the City regarding valued wildlife species and/or habitats in the City and describe the following:

- Current federal, state, and local regulatory protections for wildlife species and their habitats;
- Legal basis for protecting species and habitats of local value or importance;
- Current approaches in cities with comparable characteristics to Olympia; and
- Options for increasing protections the identified species and/or habitats.

The intent of this memo is to provide a basis for discussion between stakeholders and the City about wildlife and wildlife habitats in Olympia.

Mapped Priority Species and Habitats and Prairie Soils in Olympia

ESA performed a limited evaluation of existing GIS information of species and habitats in the City and its UGA. The major source of information is the Washington Department of Fish and Wildlife (WDFW)

Priority Habitats and Species (PHS) database (WDFW, 2016). The PHS database is continuously updated by WDFW, but does not include all known occurrences of priority species and habitats due to limited agency resources. Figure 1 shows the location of current and historic wildlife occurrences and concentrations as mapped by WDFW and Table 1 provides a summary of PHS records. The PHS database includes both individual species and species group records for Olympia including documentation of wood duck breeding areas, mink occurrences (both from the early 1990s), great blue heron rookeries, bald eagle and peregrine falcon breeding sites, and bat communal roosts. There are mapped concentrations of shorebirds and waterfowl in Budd Inlet and Capitol Lake, respectively. Capitol Lake and the Percival Creek riparian corridor is mapped as a Biodiversity Area and Corridor.

Table 1. Mapped WDFW Priority Habitats and Species

Habitat or Species	PHS Category	Location
Habitats		
Biodiversity Area & Corridor	Priority Habitat	Capitol Lake
Shorebird Concentration Area	Regular Concentration	Budd Inlet
Waterfowl Concentration Area	Regular Concentration	Capitol Lake
Birds		
Wood duck	Breeding Area	West Olympia
Great blue heron	Breeding Area	West Bay
Bald eagle	Breeding Area/Nest Site	Deschutes River, Capitol Lake (nest)
Peregrine falcon	Breeding Area/Nest Site	Port of Olympia
Purple martin	Breeding Area/Site	East Bay Marina, West Bay Marina, Percival Landing, Fiddlehead Marina
Vaux's swift	Communal Roost	Deschutes River, SE of Capitol Lake
Mammals and Amphibians		
Mink	Occurrence	Black Lake Ditch corridor
Mazama pocket gopher	Occurrence	One individual near Yelm Highway/Blvd Road
Oregon spotted frog	Occurrence	Two egg mass in Fish Pond Creek
Bats		
Yuma myotis	Communal Roost	Woodard Creek, Deschutes River, near Hazard Lake
California myotis	Communal Roost	Deschutes River
Big brown bat	Communal Roost	Capitol Lake
Little brown bat	Communal Roost	Woodard Creek
Townsend's Big-eared bat	Occurrence	Deschutes River
Fish		
Olympic mudminnow	Occurrence	Ditch at Kaiser Road, Green Cove (headwaters, drainage, Creek), Cooper Pt Road, Louise Lake, Woodard Creek
Coho	Occurrence/Migration	Indian Creek, Moxlie Creek, Deschutes River, Schneider Creek, Percival Creek, Ellis Creek, Black Lake Drainage Ditch
Fall Chinook	Occurrence/Migration	Indian Creek, Moxlie Creek, Deschutes River, Percival Creek
Fall Chum	Occurrence/Migration	Indian Creek, Moxlie Creek, Deschutes

		River, Percival Creek
Residential Coastal Cutthroat	Occurrence/Migration	Woodard Creek, Indian Creek, Deschutes River, Percival Creek
Winter Steelhead	Occurrence	Deschutes River, Woodard Creek
Surf smelt	Breeding Area	Budd Inlet

Prairie-dependent plant and wildlife species are of concern in Thurston County. As described in detail later in this memo, the County has designated prairies as locally important habitats and employs Natural Resources Conservation Service (NRCS) soil mapping to preliminarily identify locations that may support dry or wet prairie habitats. The County provides a list of soils known to be associated with prairies in its CAO (Table 24.25-6 in Thurston County Code Title 24). Figure 2 shows the location of these soil types in the City of Olympia and its UGA.

The Washington Department of Natural Resources (WDNR) maintains a database of rare plant species and ecosystems of special concern through its Natural Heritage Program (NHP). Native prairies and oak woodlands are considered high-quality terrestrial ecosystems and their occurrence is mapped by the NHP. Based on a review of the NHP database, there are no known locations of these habitats in the City of Olympia and its UGA.

Additional Information on Wildlife in the City

WDFW records for great blue heron in the City note active breeding (confirmed by WDFW biologists) in 2008, 2009, 2010, 2012, 2013, and 2014 (WDFW, 2015). Information provided by citizens note breeding in 2015 and 2016 (Einstein, 2016). Approximately 30 individuals comprise the heron population, which has alternated rookery locations on forested slopes of both the West Bay and East Bay of Budd Inlet (Einstein, 2016). The West Bay rookery location is shown on Figure 1.

The Black Hills Audubon Society conducts surveys of bird species in Olympia during the annual Christmas Bird Count. The data has been compiled by citizen volunteers and provides a basis of overall patterns in bird abundance over time when appropriately interpreted. Abundance patterns for great blue heron, purple martin, osprey, Western grebe, and Vaux’s swift are available (Black Hills Audubon, 2016).

Federal and State Regulatory Protections

Fish and wildlife species and their habitats are protected under multiple federal, state, and local government policies, regulations, and laws. At the federal level, the major environmental law protecting wildlife is the Endangered Species Act. Species listed under the Act are a limited number of fishes, mammals, and birds that are designated as “endangered,” “threatened,” and “candidate” species.

In Olympia, listed species that are mapped by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) include salmonids such as Chinook and steelhead, pocket gopher, marbled murrelet, streaked horned lark, and yellow-billed cuckoo and one plant species (golden paintbrush) (USFWS, 2016; NMFS, 2016). However, suitable habitat for the pocket gopher, the three bird species, and golden paintbrush is not present within the City limits or the urban growth area (UGA) and these species are unlikely to occur.

The Migratory Bird Treaty Act (MBTA) protects native bird species from harm (specifically illegal is to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter the parts, nests, or eggs). The list of birds protected under the MBTA is periodically updated with the most recent update occurring in 2013, which designated 1,026 bird species. According to USFWS (2016), the migratory bird species that occur in Olympia include numerous waterfowl, raptor, and songbird species.

The MBTA protects the individual bird, its nest, and its eggs, but it does not protect the bird’s habitat. Thus, removing a tree with an active nest would be considered unlawful under the MBTA, but removing the same tree outside of the nesting season would not. The MBTA is administered by USFWS who also authorizes WDFW for state and local projects. Enforcement of the MBTA is common for federally-funded projects, but less so for state and local projects due to limited WDFW resources.

Similar to the MBTA, the Bald and Golden Eagle Protection Act protects the “taking” of eagles, including their parts, nests, or eggs. Bald eagles regularly occur in the City and nest along the shoreline of Budd Inlet and other waterbodies such as the Deschutes River.

Table 2 summarizes all of the applicable federal and state laws as well as programs for wildlife and their habitats. Two state laws, the GMA and the Shoreline Management Act (SMA), provide the legal basis for protecting wildlife species and habitats in Washington. Both acts are implemented at the local level (as described in the following section).

Table 2. Federal and State Regulations and Programs Protecting Wildlife

Statute	Lead Agency	Regulated Activities / Program
Federal		
Endangered Species Act (50 CFR Part 17)	NMFS and USFWS	Protects species identified as endangered or threatened along with designated critical habitat required for the conservation of those species. NMFS has authority over most anadromous fishes, marine mammals, marine reptiles, and other marine fish species, while the USFWS has authority over terrestrial wildlife and resident fish species that inhabit inland waters.
Magnuson-Stevens Fishery Conservation Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267)	NMFS	Requires federal agencies to consult with NMFS on federal actions that may adversely affect designated Essential Fish Habitat for federally managed fish species.
Marine Mammal Protection Act	NMFS and USFWS	Protects all marine mammals from take in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products. NMFS is charged with protecting whales, dolphins, porpoises, seals, and sea lions. Walrus, manatees, otters, and polar bears are protected by the USFWS.
Bald and Golden Eagle Protection Act (50 CFR Part 22)	USFWS	Protects bald and golden eagles and makes it unlawful to take, import, export, sell, purchase, or barter any bald or golden eagles, their parts, products, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

Migratory Bird Treaty Act (50 CFR Part 21)	USFWS	Protects many common native birds as well as birds that are listed as threatened or endangered. USFWS regulates most aspects of the taking, possession, transportation, sale, purchase, barter, exportation, and importation of migratory birds.
State		
Growth Management Act (Chapter 36.70A RCW)	Department of Commerce	Requires county and local municipalities to manage Washington's growth through the identification and protection of critical areas and natural resource lands; the designation of <i>urban growth areas</i> ; and the preparation and implementation of comprehensive plans.
Shoreline Management Act (Chapter 90.58 RCW)	Department of Ecology (Ecology)	Regulates water bodies above a threshold size as well as lands within 200 feet of the ordinary high water mark of those water bodies. Includes policies and regulations to protect shoreline habitat, preserve public access, and allow for water-dependent uses.
State Wildlife Permanent Regulations (Chapter 232-12 WAC)	WDFW	Protects and regulates the hunting of wildlife including game species, listed species, etc.
Priority Habitats and Species Program	WDFW	Non-regulatory program that provides information on documented locations of fish and aquatic resources, terrestrial plants and animals, and habitats listed or defined as priority. Priority species include state endangered, threatened, sensitive, or candidate species; animal aggregations considered vulnerable; and species of recreational, commercial, or tribal importance that are vulnerable. Priority habitats are habitat types or elements of habitat with unique or significant value to a diverse assemblage of species. A priority habitat may consist of a unique vegetation type (e.g., shrub-steppe) or dominant plant species, a described successional stage (e.g., old-growth forest), or a specific habitat feature (e.g., cliffs).
Natural Heritage Program	WDNR	Non-regulatory program that provides information for listed plant species or those defined as rare. Also maintains information on rare ecological communities and priority species.

City of Olympia Regulatory Protections and Gaps

The local regulatory programs and policies associated with wildlife species and habitat currently implemented by the City include the CAO, Shoreline Master Program (SMP), and Comprehensive Plan. The City's CAO protects and regulates activities on or adjacent to designated critical areas with the goal of minimizing potential impacts to fish, wildlife, and plant species and habitats. It helps to establish allowed uses, buffers, setback requirements, and mitigation requirements for regulated critical areas. City administration of the CAO and SMP regulations must also be balanced with private property uses and rights under state law. Per the state's constitution and state law (RCW 36.70A .370), land use regulations that affect the use of private property must be administered in a manner that does not constitute a taking of private property or violate the principles of substantive due process (State of Washington, 2015).

Among the critical areas identified for protection under the GMA are fish and wildlife habitat conservation areas (FWHCAs). FWHCAs are defined as (WAC 365-190-130):

- a) Areas where endangered, threatened, and sensitive species have a primary association;
- b) Habitats and species of local importance, as determined locally;
- c) Commercial and recreational shellfish areas;
- d) Kelp and eelgrass beds; herring, smelt, and other forage fish spawning areas;
- e) Naturally occurring ponds under twenty acres and their submerged aquatic beds that provide fish or wildlife habitat;
- f) Waters of the state;
- g) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity; and
- h) State natural area preserves, natural resource conservation areas, and state wildlife areas.

The current CAO provides standards for protection of FWHCAs in two sections of OMC 18.32: Important Habitats and Species (18.32.300-330) and Streams and Important Riparian Areas (18.32.400-445). Important habitats and species are defined in OMC 18.32.305 as "*habitats or species known to occur within Thurston County and which may be found within the City of Olympia...*" and include ESA-listed species, as well as state-listed species. The code does not provide a list of habitats or species and does not reference the lists available in the Thurston County CAO (discussed in detail below).

The SMP establishes allowed uses, buffers, setback requirements, and mitigation requirements for shorelines of regulated waterways (e.g. streams, wetlands) in OMC 14.08. It identifies specific shoreline areas for protection that provide important wildlife habitat, including: Port Lagoon, Priest Point Park, Ellis Cove, Grass Lake, Chambers Lake, and Percival Canyon. The SMP generally identifies wildlife species for habitat protection as "locally important plant, fish and wildlife species..." but does not identify particular species.

Lastly, the Olympia Comprehensive Plan contains policies that include: protection of ecological processes and functions of wildlife habitat (e.g. wetlands, streams), restoration of natural features, and tree retention. Similar to the CAO and SMP, no specific wildlife habitats or species are identified for protection or restoration.

In summary, Olympia's CAO addresses species that are already listed under federal and state regulations (e.g., salmonids, marine mammals, bald eagle), several specific habitat types (e.g., eelgrass beds, surf smelt breeding areas), and habitats that occur in specific locations (e.g., Important Riparian Areas and those identified in the City's SMP). Conversely, wildlife species that are not listed and/or that do not have a primary association with the habitats defined as FWHCAs or those specifically identified in the CAO and SMP, are not protected. In the case of great blue herons, if the heron rookery were located in one of the areas specifically protected or within a standard buffer of a wetland or stream, then critical areas protections would apply. If it were located outside of these areas, only the removal of an active nest would be considered unlawful under the MBTA and state law (WAC 232-12-011), and removal of nest trees outside of the nesting season would not.

Legislation for Protecting Local Habitats and Species

Primary legislation for protecting local habitats and species is provided by the GMA. As previously mentioned, the GMA designates FWHCAs for protection as a critical area and provides a definition for

FWHCAs that includes habitats and species of local importance, as determined locally (WAC 365-190-030(19)):

"Habitats of local importance" designated as fish and wildlife habitat conservation areas include those areas found to be locally important by counties and cities;

"Species of local importance" as those species that are of local concern due to their population status or their sensitivity to habitat alteration or that are game species.

The GMA does not provide additional specificity about designating habitat or species of local importance beyond the above definitions. To assist local jurisdictions, the Department of Commerce (formerly CTED) provides one method of designating habitats and species through a set of example code provisions (CTED, 2007). The example provisions are as follows:

- a. **Designation Process.** The [city/county] shall accept and consider nominations for habitat areas and species to be designated as locally important on an annual basis.
 - i. Habitats and species to be designated shall exhibit the following characteristics:
 - (a) Local populations of native species are in danger of extirpation based on existing trends:
 1. Local populations of native species that are likely to become endangered; or
 2. Local populations of native species that are vulnerable or declining (see WAC 232-12-297);
 - (b) The species or habitat has recreation, commercial, game, tribal, or other special value;
 - (c) Long-term persistence of a species is dependent on the protection, maintenance, and/or restoration of the nominated habitat;
 - (d) Protection by other county, state, or federal policies, laws, regulations, or nonregulatory tools is not adequate to prevent degradation of the species or habitat in [city/county]; and
 - (e) Without protection, there is a likelihood that the species or habitat will be diminished over the long term.
 - ii. Areas nominated to protect a particular habitat or species must represent either high-quality native habitat or habitat that has a high potential to recover to a suitable condition and which is of limited availability, highly vulnerable to alteration, or provides landscape connectivity which contributes to the integrity of the surrounding landscape.
 - iii. Habitats and species may be nominated for designation by any person.
 - iv. The nomination should indicate whether specific habitat features are to be protected (for example, nest sites, breeding areas, and nurseries), or whether the habitat or ecosystem is being nominated in its entirety.
 - v. The nomination may include management strategies for the species or habitats. Management strategies must be supported by the best available science, and where

restoration of habitat is proposed, a specific plan for restoration must be provided prior to nomination.

- vi. The [director] shall determine whether the nomination proposal is complete, and if complete, shall evaluate it according to the characteristics enumerated in subsection (i) and make a recommendation to the [planning commission] based on those findings.
- vii. The [planning commission] shall hold a public hearing for proposals found to be complete in accordance with [locally adopted hearing procedures] and make a recommendation to the [city council or county commissioners] based on the characteristics enumerated in subsection (i).
- viii. Following the recommendation of the [planning commission], the [city council or county commissioners] shall designate a Habitat or Species of Local Importance.
- ix. Approved nominations will be subject to the provisions of this Title.

Current Approaches in Other Jurisdictions

Some local governments identify and protect specific habitats and species of local importance through their CAO with the goal of protecting the species before they end up on a state or federal threatened or endangered species list. The following paragraphs discuss the current protections for habitats and species of local importance in neighboring jurisdictions, including Thurston County and the cities of Kenmore, Redmond, Bellevue, and Tacoma.

Thurston County

The Thurston County CAO (Thurston County Code [TCC] Title 24) designates habitats and species of local importance as a FWHCA. The County follows a process similar to the example code provisions from Commerce as listed in the previous section. Thurston County has codified these specific submission requirements for adding or removing habitats or species of local importance in their CAO ([TCC 24.25.065\(C\)](#)). Habitats of local importance are defined in TCC 24.03 as habitats that:

"... may include a seasonal range or habitat element with which a given species has a primary association, and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range, and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alteration."

The County has designated five habitats of local importance. Table 3 lists the habitats as well as a justification for the habitat listing.

Table 3. TCC Table 24.25-4 Habitats of Local Importance.

Habitat	Purpose of Habitat/Basis for Listing	Related Species
Cottonwood floodplains	Current floodplain regulations do not protect this habitat from being cleared for converting to agricultural uses. This is a habitat found only along the Nisqually River in Thurston County.	Red-eyed vireo

Habitat	Purpose of Habitat/Basis for Listing	Related Species
	Cottonwoods are a keystone species in many riparian zones (Johnson et al 2001).	
Balds (dry plant communities, grasslands)	Globally unique and rare plant community. Primarily located in SE corner of Thurston County, vicinity of Bald Hills. Similar to prairies, but smaller and shallower soils (associated with bedrock outcrops).	
Prairie or Westside Prairie	Important prairie or westside prairie habitat means herbaceous, non-forested (forested means greater than or equal to sixty percent forest canopy cover) plant communities that can either take the form of a dry prairie where soils are well-drained or a wet prairie. Priority dry prairie areas have a minimum size of one acre. In addition, some areas dominated by Scot's (Scotch) Broom (non-native shrub) or other invasive species to prairies shall be considered prairie if the area is restorable and when there are native prairie species in the understory below the shrubs. Such marginal and restorable areas can be less valuable, but may have significant value if they are large in area, or in a landscape that connects two or more prairies. Small areas less than one acre with characteristics meeting the definition of prairie habitat which are functionally connected to another larger prairie habitat within approximately one half mile are also important prairie habitat areas. Mima mounds shall be preserved to the greatest practicable extent as determined by the review authority. See the definitions for prairie habitat, dry prairie, and wet prairie.	Mazama pocket gopher, Taylor's checkerspot butterfly, Mardon skipper, streaked horned lark
Oregon White Oak Habitat	Important Oak Habitat means stands of Oregon white oak (<i>Quercus garryana</i>) or oak/conifer associations where canopy coverage of the oak component of the stand is twenty-five percent or more; or where total canopy coverage of the stand is less than twenty-five percent, but oak accounts for at least fifty percent of the canopy coverage. The latter is often referred to as oak savanna. Important oak habitat consists of stands greater than or equal to one acre (0.4 hectares) in size. Single oaks or stands less than one acre (0.4 hectares) shall also be considered an important habitat when found to be particularly valuable to fish and wildlife (i.e. they contain many cavities, have a large diameter at breast height, are used by priority species, or have a large canopy), or are located in degraded habitat areas. Individual oak trees and stands of pure oak or oak conifer associations less than one acre in size that are located in close proximity to an oak habitat larger than one acre may also be considered an important habitat.	Western gray squirrel
Springs and seeps (includes mineral springs)	Forested springs/seeps are protected in the Forests and Fish Report to protect stream associated amphibians (SAA), protect water quality, etc. fifty-foot no cut buffer required. Mineral springs are important to Band-tailed pigeons, especially during breeding season.	Band Tailed Pigeon

Species of local importance in Thurston County are defined in TCC 24.03 as:

"... those species that may not be endangered or threatened from a statewide perspective, but are of local concern due to their population status or their sensitivity to habitat manipulation and have been designated as such."

The County has designated eight bird species and four amphibian and reptiles species of local importance. Table 4 lists the species as well as a justification for listing.

Table 4. TCC Table 24.25-5 Wildlife Species of Local Importance

Common Name	Scientific Name	Basis for Listing as Locally Important
<i>Birds:</i>		The following bird species depend on prairie habitat and are declining in population due to loss of habitat. They serve as indicator species for relatively large and/or healthy prairie and may assist in protection of prairie habitat.
Western Meadowlark	<i>Sturnella neglecta</i>	Prairie species. Needs large open areas. Found on Joint Base Lewis McChord (JBLM), Mima Mounds, and Olympia Airport year round.
Lazuli Bunting	<i>Passerina amoena</i>	Prairie species. Declining populations. Found near Scatter Creek and Joint Base Lewis McChord (JBLM).
Common nighthawk	<i>Chordeiles minor</i>	Prairie species. Population declining significantly.
American Kestrel	<i>Falco sparverius</i>	Prairie species. Population is declining. Nests in cavities. Can use nest boxes.
Northern Harrier	<i>Circus cyaneus</i>	Prairie and herbaceous wetlands. Ground nester. Uncommon breeding in Washington.
American Bittern	<i>Botaurus lentiginosus</i>	State of Washington Birds classifies A. Bittern as a Species of Immediate Concern for wetlands.
Olive-sided Flycatcher	<i>Contopus cooperi</i>	State of Washington Birds classifies Olive-sided Flycatcher as a Species of Immediate Concern for forests.
Short-eared owl	<i>Asio flammeus</i>	State of Wa Birds classifies Short-eared owl as a Species of High Concern for grasslands.
<i>Amphibians and Reptiles:</i>		The following amphibian species ranges have been significantly reduced due to habitat alteration and development. Sensitive to site and landscape alterations, specifically that limit breeding and foraging site connectivity, and dispersal/seasonal corridors.
Olympic Torrent Salamander	<i>Rhyacotriton olympicus</i>	Three of the four species of Rhyacotritoninae occur in Thurston County - Olympic Torrent, Columbia Torrent, and Cascade Torrent. Cascade and Columbia Torrent salamanders are both listed as State Candidate Species by WDFW. Erik Neatherlin of WDFW and Bill Leonard, Biologist with WDOT, both recommend listing the Olympic Torrent Salamander as a Locally Important Species due to their association with old-growth forests and

Common Name	Scientific Name	Basis for Listing as Locally Important
		sensitivity to increased temperatures and sedimentation in streams and headwaters.
Tailed Frog	<i>Ascaphus trui</i>	Sensitive to timber harvest. Survival may depend on protection of cool flowing streams required for breeding and larval development. Likely to be affected by increased water temperatures occurring after timber harvest. Headwater stream protection through buffers is important mitigation measure.
Cope's Giant Salamander	<i>Dicamptodon copei</i>	Cope's giant salamander (<i>Dicamptodon copei</i>) are sensitive to habitat change and fragmentation from development. Both species would be expected to occur in the extreme SE portion of the county, similar to the two PHS species, Cascades torrent salamander and Van Dyke's salamander. The SE portion of the county in the headwaters of the Deschutes systems and the Nisqually system in the vicinity of Alder lake should be considered a "hot" region for all four (2 PHS, 2 local species mentioned) as this area is the only place they are likely to occur in the county. (Source: E. Neatherlin, WDFW)
Pacific Giant Salamander	<i>Dicamptodon tenebrosus</i>	May be associated with old-growth forests. Found in moist coniferous forests. During breeding season found in or near streams. Closely associated with high gradient streams with coarse substrate.

City of Kenmore

The City of Kenmore CAO (Kenmore Municipal Code [KMC] 18.55) designates habitats of local importance through the following criteria (KMC 18.55.500):

1. Documented presence of species listed by the federal government or the State of Washington as endangered or threatened; or
2. Heron rookeries or active nesting trees; or
3. Class 1 wetlands as defined in KMC 18.55; or
4. Type 1 streams as defined in KMC 18.55; or
5. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC [232-12-292](#)).

According to the code, all areas meeting one or more of these criteria within the City of Kenmore, regardless of formal identification, are designated as critical areas and are subject to the provisions of the CAO (KMC 18.55). The code includes specific performance standards for these species including the following provisions for great blue heron rookeries (KMC 18.55.530(B)):

1. A buffer equal to the distance of a 900-foot radius measured from the outermost nest tree in the rookery will be established around an active rookery. This area will be maintained in native vegetation. For the Kenmore heron rookery located adjacent to the Kenmore park-and-ride lot, the buffer excludes the area south of the north edge of the State Route 522 right-of-way and west of the east edge of the 73rd Avenue NE right-of-way.
2. Between January 1st and July 31st, no clearing, grading or land disturbing activity shall be allowed within 900 feet of the rookery unless approved by the City and Washington State

Department of Fish and Wildlife. For the Kenmore heron rookery located adjacent to the Kenmore park-and-ride lot, the area south of the north edge of the State Route 522 right-of-way and west of the east edge of 73rd Avenue NE right-of-way is excluded.

3. Approval of permits for activities within the heron rookery buffer shall not occur prior to the approval of a habitat management plan by the City and the Washington State Department of Fish and Wildlife.

Note that the performance standards have been written to apply to great blue heron rookeries in general as well as a specific existing rookery.

Cities of Bellevue, Tacoma, and Redmond

The City of Bellevue CAO (Bellevue Land Use Code [LUC] 20.25H) provides a list of 23 species as the definition for 'species of local importance' and designation as a critical area (LUC 20.25H.150). Any habitat associated with listed species of local importance is also designated as a critical area (LUC 20.25H.150). Like Thurston County, the City includes a process for identifying additional species. <http://www.codepublishing.com/WA/Bellevue/LUC/BellevueLUC2025H.html>. The City of Bellevue also developed and adopted an Urban Wildlife Habitat Functional Assessment Model (Watershed Company, 2009a and 2009b), which allows users to rate habitat on a property based on its potential to support species of local importance and other wildlife. The City requires habitat assessment for proposals that are in and adjacent to important habitat areas.

While the City of Tacoma CAO does not specifically designate 'locally important' species or habitats, it does provide a list of WDFW priority habitat and species known to be located within the City limits that are designated for protection as FWHCAs (Tacoma Municipal Code [TMC] 13.11.520).

The City of Redmond designates great blue heron as its only species of local importance (Redmond Municipal Code [RMC] 21.64.020(A)(2)). For habitats, the City has two distinctive designations: Core Preservation and Quality Habitat Areas. Core preservation areas are "areas that protect habitat and that are preserved through any of the regulatory mechanisms provided in [the] Zoning Code, including Native Growth Protection Areas, Class I streams and their buffers, Class II through IV streams, and other areas similarly protected. Core Preservation Areas may also include lands where development rights have been sold and some lands with recorded open space easements, depending on the purpose of the easement. These areas include wetlands and streams and their associated buffers as they become identified at a site-specific level." Quality habitats areas are "areas that provide significant wildlife value by virtue of their characteristics. These characteristics include several parameters indicative of quality habitat, including size, community diversity, interspersed (spatial patterns), continuity, forest vegetation layers, forest age, and lack of invasive plants." Proposals located in either of these areas are reviewed under special criteria with the intent of protecting and preserving habitat.

Options for Protecting Local Habitats and Species

Programmatic

A programmatic approach to identifying and protecting locally important habitats and species entails the designation of land for specific purposes such as open space, native growth protection areas, or habitat preservation areas. Native growth protection areas are probably the most commonly used and are typically defined as areas "where native vegetation is preserved for the purpose of preventing harm

to property and the environment, including but not limited to providing open space, maintaining wildlife corridors, maintaining slope stability, controlling runoff and erosion, and/or any other designated purpose.” Other programs include Conservation Futures, a state tax levy program that allows counties to preserve land of public interest for future generations. The Thurston County Conservation Futures Program “protects, preserves, maintains, improves, restores, and limits the future use of threatened areas of open space, timberlands, wetlands, habitat areas, culturally significant sites, and agricultural farmlands.” Similarly, Open Space Tax Programs help maintain, preserve, and conserve adequate open space lands for the production of food, fiber, and forest crops, and to assure the use and enjoyment of natural resources and scenic beauty. These programs provide reduced property tax rates for property owners who voluntarily commit a portion of land to open space.

The City of Redmond uses a programmatic approach to wildlife habitats by designating Core Preservation Areas (defined previously). These areas are mapped by the City and consist of habitats that are already protected. Existing native growth protection easements, categorized streams and Class I stream buffers, properties that have transferred development rights, and preserved parkland are all examples of core preservation areas. The map is available at:

<https://www.redmond.gov/cms/one.aspx?portalId=169&pageId=7398>

With support from its Comprehensive Plan, the City of Olympia could consider designating specific publicly-owned lands for wildlife habitat. Enforcing the protection of these lands would need to be done through regulations, but a City-wide approach to wildlife habitat would establish a basis for protection.

Regulatory

As described previously, some cities and counties protect locally important species and habitats through specific regulations that limit the type, location, and timing of development adjacent to known species locations or habitats. This is the most common approach because it can be tailored to specific species or habitats of interest (in the jurisdiction) and then applied to site-specific proposals as needed. The regulatory approach also relies on state guidance (for designating habitats and species).

To add protections for the great blue heron, the City of Olympia could consider an approach similar to Kenmore, which requires a 900-foot buffer around heron rookeries, timing restrictions on construction, and consultation with the City and WDFW. More broadly, the City could consider adopting the Thurston County lists of habitats as a conservative approach to protecting multiple habitats. However, based on available mapping of prairie soils, known prairie habitats, and oak woodlands, adding protections for these habitats similar to the Thurston County may not be warranted due to the lack of their occurrence of the City and its UGA. Another approach is to focus on landscaping regulations that can ensure preservation of special natural areas and significant trees that are typically used by heron or other locally important wildlife species.

Incentive-based

Incentive-based approaches to wildlife habitat protection include both acquisition and easements on property that support locally important wildlife and their habitats. The City could consider innovative ways of acquiring property for open space such as transfer of development rights and development

incentives for set asides. Where appropriate, the City could encourage private donations of land or conservation easements for locally important wildlife and habitats.

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