

# DPA 4 – ENVIRONMENTAL

## JUSTIFICATION:

This Development Permit Area is intended to protect ecosystems and features that provide habitat for aquatic and terrestrial species, preserve biodiversity, and provide ecosystem services, when conducting development near Environmentally Sensitive Areas. Where the term Environmentally Sensitive Area (ESA) is used, it is meant to include the buffers, also known as protection setbacks, of that ESA.

This category applies to all lands shown on the Terrestrial Environmentally Sensitive Area Map 5 and the Aquatic Environmentally Sensitive Map 6 as well as to any property that contains an Environmentally Sensitive Area, whether mapped or not. Because not all ESAs are mapped, all properties that are equal to or larger than 4,000 metres square in size are subject to an Environmental Impact Assessment prior to development approvals to confirm the presence or absence of ESAs.

The types of Environmentally Sensitive Areas fall into the following categories:

- **Freshwater aquatic ecosystems:**  
Those natural systems that are either permanently or periodically under water. Water may be running, as in a river, stream or springs or still, as in lakes and wetlands, whether connected by surface flow to fish bearing waters or not. This includes their riparian areas, specifically lands within 30 metres of the natural boundary of such ecosystems. These ecosystems may also be subject to provincial Riparian Areas Protection Regulation (RAPR). (Shown in Map 6).
- **Estuary and marine shorelines:**  
The waters and lands adjacent to the K'ómoks Estuary as well as the Courtenay River and including to the Condensory Bridge at Anderton Avenue and Condensory Road.
- **Terrestrial ecosystems:**  
Those ecosystems that are land-based. Common designations follow the provincial Sensitive Ecosystem Inventory categories: seasonally flooded agricultural fields,

terrestrial herbaceous, older forest, older second growth forest, sparsely vegetated (cliffs and bluffs), wetland, riparian, and woodland such as Garry Oak ecosystems. (Shown in Map 5).

- **At-risk species and ecological communities:** These include, but are not limited to, species listed under the federal Species at Risk Act (SARA) and species and ecological communities provincially designated as red- or blue-listed.
- **Ecosystems Connectivity Areas:** The Biogeoclimatic Zone in which Courtenay is situated (the Coastal Western Hemlock, very dry maritime, CWHxm) is one of the most at risk in BC. The greatest opportunities for protecting at-risk ecological communities within this zone are generally represented in the Ecosystem Connectivity Area Opportunities shown on Map 5 Terrestrial Environmentally Sensitive Areas. The map includes gaps in the corridor that will require restoration.
- **Raptor and heron nests:** Under the BC Wildlife Act, the nest of an eagle, peregrine falcon, gyrfalcon, osprey, heron, or burrowing owl is protected whether occupied by a bird or its egg or not. Raptors are a term used to describe birds of prey including hawks, owls, falcons and eagles. This includes the nests themselves and their setbacks as determined by a Registered Professional Biologist.

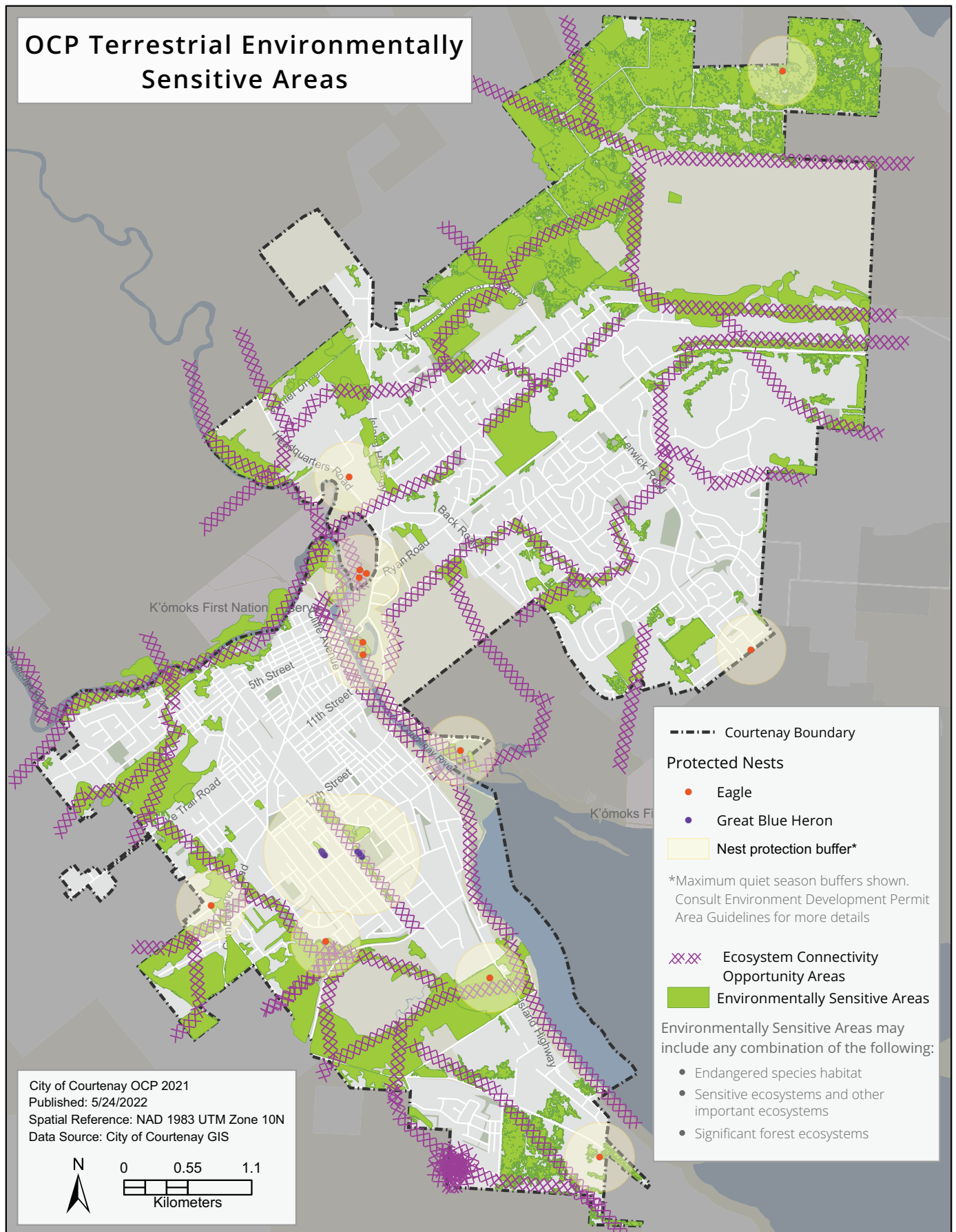
The designation and guidelines are in accordance with sections 488 (1) (a) of the Local Government Act.

The City of Courtenay's regulations do not negate the need for compliance with any federal or provincial statutes and regulations governing the management of the environment and wildlife.

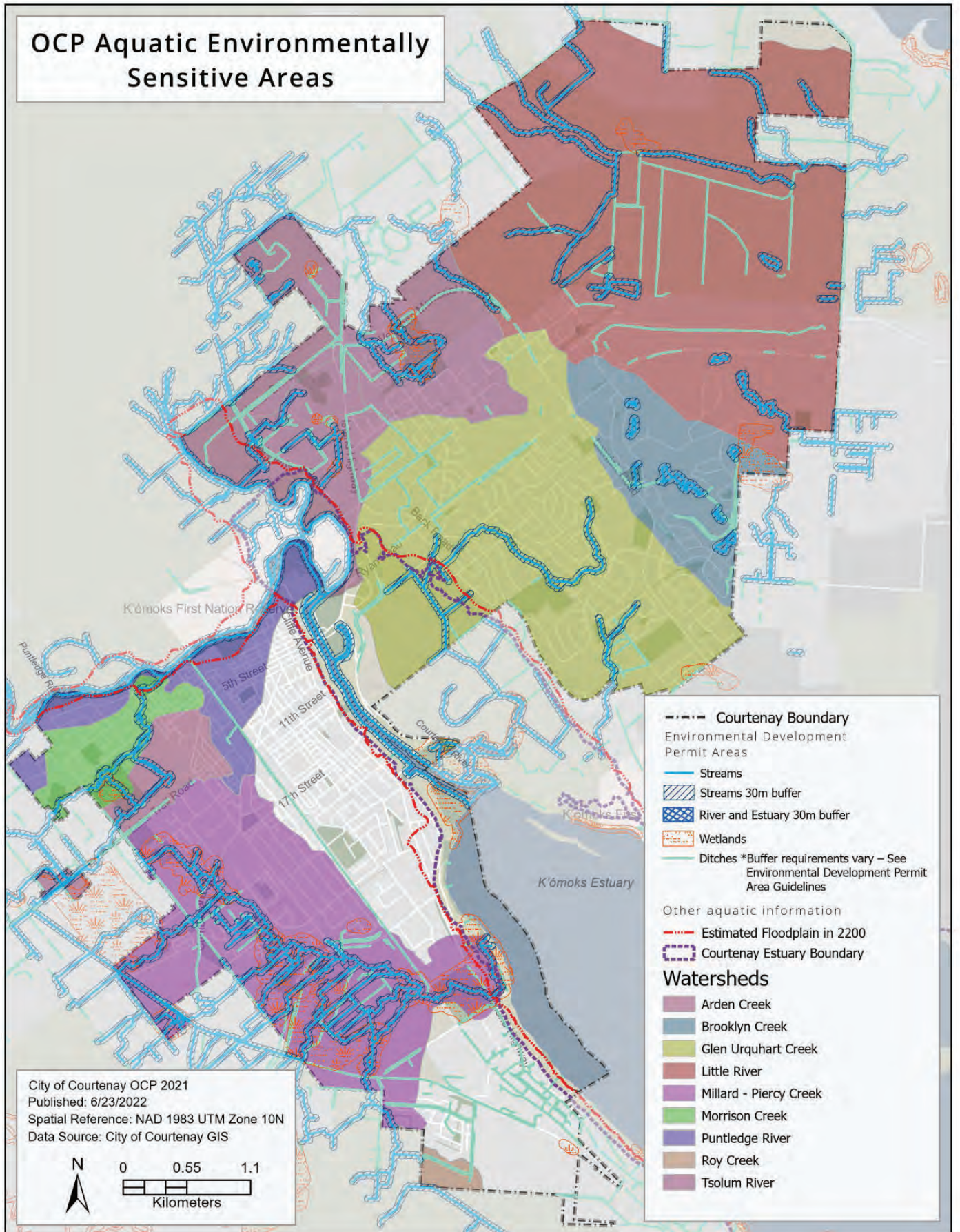
### **Objectives:**

1. Protect areas of high biodiversity and ecological sensitivity within Courtenay including ground and surface water, shorelines, forests, wildlife and important wildlife habitats, ecosystem features and functions, and rare and endangered ecosystems, ecological communities and species.
2. Maintain ecosystem connectivity.
3. Restore and enhance previously degraded ecosystems.
4. Ensure that ecosystem protection and enhancement values are elevated and prioritized in the development design and review process, and specify where and how lands are developed around Environmentally Sensitive Areas.
5. Protect and enhance water quality and prevent contamination of water from land use and development activities.
6. Meet and generally exceed the Riparian Areas Protection Regulation (RAPR) requirements.
7. Provide comprehensive environmental protection guidelines that are scientifically rigorous, clear, and transparent to development applicants and the greater community.

Map 5 Terrestrial Environmentally Sensitive Areas.



Map 6 Aquatic Environmentally Sensitive Areas.





## DESIGNATED AREAS & ACTIVITIES

The Environmental Development Permit Area (EDPA) applies to all privately-owned land within the City of Courtenay unless subject to a defined Exemption (Exemptions Section follows).

Unless exempt, a Development Permit addressing the Environmental Development Permit guidelines in this chapter must be approved before any development may take place. Development includes any of the following:

- removal, alteration, disruption, or destruction of vegetation
- disturbance of gravel, sand, soils and/or peat
- deposition of gravel, sand, soil, and/or peat
- construction, erection, or alteration of buildings and structures
- creation of non-structural impervious or semi-pervious surfaces
- flood protection works
- preparation for or construction of roads, trails, docks, and bridges
- provision and maintenance of sewer and water services
- development of drainage systems
- development of utility corridors
- blasting

## GENERAL STRUCTURE

The structure of the Environmental Development Permit Area Guidelines follows the following format:

- **General Guidelines** - These generally apply to all types of development.
- **Additional Guidelines** - These apply additionally to specific types of Environmentally Sensitive Areas and are listed in box insets.

Where a property contains or is adjacent to more than one Environmentally Sensitive Area, all applicable Development Permit guidelines shall be followed.

## EXEMPTIONS

### **An Environmental Development Permit (EDP) will not be required in the following circumstances:**

#### **1. No Environmentally Sensitive Area (ESA).**

The absence of an ESA shall be demonstrated as follows:

- a. Properties that are smaller than 4,000 square metres in size and do not contain an ESA shown on Maps 5 or 6 (Terrestrial and Aquatic Environmentally Sensitive Areas) are exempt.
- b. Properties that are equal to or larger than 4,000 square metres in size will require an Environmental Impact Assessment (EIA) in order to evaluate the presence of Environmentally Sensitive Areas.
  - i. Where an ESA had previously been identified, but is no longer present, the City will take into account whether the ESA is no longer present due to its alteration.
  - ii. Where alteration in the form of land clearing, drainage, or any other alteration that affected the ESA is known to have occurred, the City will require that an EDP be registered on title to include ecological restoration provisions.
  - iii. Where the EIA demonstrates that no ESAs will be affected by the development proposal and where scenario 1.b.ii. does not apply, an EDP will not be required.

**2. Pre-existing protection.** Where a Development Permit of this type has already been issued or a conservation covenant under section 219 of the Land Title Act is registered against title, is granted to the City or a recognized conservancy and includes provisions which protect the Environmentally Sensitive Area in a manner consistent with the current applicable EDPA guidelines, to the satisfaction of the City of Courtenay.

**3. Restoration activities only,** including invasive species removal. The proposed works are ecological restoration and enhancement, in accordance with established best management practices and senior government approvals, as required, under the purview of the City of Courtenay. This includes: hand removal of invasive plants or noxious weeds on a small scale with appropriate disposal methods; planting and maintenance of native species trees, shrubs, or groundcovers for the purpose of enhancing the habitat values and/or soil stability. A restoration plan prepared by a Registered Professional Biologist must be presented to the City of Courtenay prior to these activities taking place.

**4. Sufficient senior government approvals.** Works approved by provincial or federal authorities with respect to the installation of public utilities, sewer and water lines, trail construction, stream enhancement, and fish and wildlife habitat restoration or site inspection.

- 5. Public infrastructure.** Including the repair, maintenance of and improvements to all existing public structures, facilities, open spaces, trails, roads, utilities, and signage meant to include: sanitary sewer, storm sewer, water, natural gas, cable, hydro-electric, and telephone.
- 6. Emergency procedures.** Actions and activities necessary in order to prevent immediate threats to life or property. Any emergency works are to be undertaken in accordance with the Provincial Riparian Area Protection Regulation, Water Sustainability and Wildlife Acts, and the Federal Fisheries Act. Emergency actions by anyone other than authorized personnel must be reported to the City of Courtenay Operational Services Department immediately.
- 7. Imminently hazardous trees.** Removal of a tree that is deemed an imminent hazard to the safety of life or buildings, as determined by an Arborist certified by the International Society of Arboriculture (ISA) with Tree Risk Assessor Certification (TRAC), provided a tree risk assessment report is provided to the City of Courtenay at the property owner's expense and removal is in accordance with the Provincial Riparian Area Protection Regulation, Water and Wildlife Acts, and the Federal Fisheries Act.



- 8. Farm use in accordance with the Farm Practices Protection (Right to Farm) Act.** Provided that the proposed activity on the site relates solely to normal farm practices in accordance with the Act. Non-farming activities and buildings on lands that may otherwise be used, designated, or zoned for agriculture are subject to the EDP guidelines.

**9. Limited construction.** Specifically:

- a. The construction of a small accessory building if all of the following apply:
  - i. The building is not located within 30 metres of natural boundary of a watercourse or within an Environmentally Sensitive Area or its setback;
  - ii. The building is located within an existing developed area;
  - iii. No native trees are removed; and
  - iv. The total area of individual small accessory buildings is less than 10 m<sup>2</sup>.
- b. Additions to existing buildings and structures that do not encroach into the present setback between the existing building and the defined ecologically sensitive feature.
- c. Fences and unpaved paths or trails which are less than one (1) metre in width, provided they are not located within 30 metres of a watercourse, waterbody or marine foreshore and no native vegetation is removed.

**10. Repair and maintenance of existing property.** Specifically:

- a. Gardening and yard maintenance activities within an existing landscaped area, such as lawn mowing, tree and shrub pruning, vegetation planting and minor soil disturbance that do not alter the general contours of the land

or cause erosion into adjacent watercourses provided that existing native vegetation is not damaged. Use of pesticides is not permitted.

- b. Roads, driveways, paths and trails, provided there is no expansion of the width or length of the road, driveway, path or trail and specifically no expansion of the amount of impervious area.
- c. Renovations, repair, and maintenance to existing buildings, structures, and utilities provided the structure remains on its existing foundation, does not extend the structure footprint either horizontally or vertically beyond its pre-existing condition, and is in compliance with the Local Government Act.

**11. Separated by a road.** Development within a Riparian Assessment Area where the development is separated from the body of water by a developed public road right of way, provided that no other Environmentally Sensitive Areas, including their buffers, are on the property.

**12. Lot consolidation or boundary adjustment.** A subdivision involving a lot consolidation or boundary adjustment where no new lots are being created and each remaining lot provides, outside of any Environmentally Sensitive Areas, a building envelope of sufficient area to permit the construction of a standard sized building within the setback building envelope established by the Zoning Bylaw (the construction of a building will require an EDP).



**13. Developing near roadside ditches within a public road right of way.**

Provisions regarding setbacks from both fish-bearing and non-fish-bearing roadside ditches shall be adhered to at the building permit stage. Five (5) metre buffers will be required for known fish-bearing ditches. Two (2) metre buffers will be required for non-fish-bearing ditches. Where it is unknown whether the stream contains fish or not, the five metre buffer shall apply. An EDP will be required for developing near ditches that are located on private land, and will be subject to the Riparian Areas Protection Regulation if developing within 30 metres of said ditch, and if the development is subject to the Riparian Area Protection Regulation.



## GENERAL GUIDELINES

### *Site planning*

1. Development encroachment on ecosystems and their buffers identified in the EIA shall not be permitted.
2. Connectivity and linkages of ESAs on the property to adjacent ESAs, tree retention areas, and other habitat areas shall be maintained and restored wherever possible to develop a continuous network of ecosystems and minimize fragmentation. This means locating development within the parcel where it will cause the least impact to natural habitat and the movement of native fauna between adjacent areas.
3. Parcel sizes for subdivision parcels, including bare land strata lots, shall be designed to be met exclusive of any ecosystems and their buffers identified in the EIA.
4. Buffer setbacks shall include sufficient distance to protect the roots of vegetation and trees, and address forest stand stability dynamics such as increased windthrow risk following proposed removal.
5. Development on slopes greater than 30% should be avoided due to the high risk of erosion and bank slippage.
6. Grading of lands immediately adjacent to ESAs shall be matched so that engineered slopes do not exceed 3:1 for a distance of five metres from the setback boundary.
7. Development and subdivision shall be planned, designed, and implemented in a manner that supports the maintenance and restoration of natural system functions including watercourse hydrology and groundwater recharge. This includes:
  - a. Managing rainwater in accordance with the Water Balance Model or the most recent integrated watershed management or rainwater policy and design manual;
  - b. Managing rainwater on site and maintaining pre-development drainage flows. Developments shall not result in an increase to post-development surface water flows, or affect the quality of the water availability within the non-disturbance areas, unless specified in the Development Permit;
  - c. Using pervious surfaces such as absorbent landscape, pervious pavement, and similar stormwater source controls as much as practicable; and
  - d. Ensuring a minimum of 20 centimeters of topsoil on all future lawn areas.

8. Natural features including soil, groundwater, native vegetation, and tree cover throughout the development should be preserved in addition to Environmentally Sensitive Areas. This includes:
  - a. Meeting or exceeding a tree density target of 50 trees per net developable hectare, as described in the Tree Protection and Management Bylaw 2850.
  - b. Except where ecosystems are characterized by isolated trees (e.g., terrestrial herbaceous ecosystems), conserving groups of trees along with their associated understories rather than isolating individual specimens.
  - c. Preserving large, wind-firm trees (living and dead) and veteran recruit trees, particularly within 500 metres of large water bodies, for the purposes of supporting raptor habitat (nesting and perching).
  - d. Preserving native vegetation and tree cover means also preserving their roots.
9. Habitat structures such as old trees, snags, trees with cavities, trees with perches for raptors, leaf litter, fallen debris, and ephemeral wetlands shall be maintained in a manner that balances FireSmart principles and public safety with ecosystem restoration under the guidance of a Registered Professional Biologist.
10. Disturbance to nesting sites and breeding areas as identified in the EIA is prohibited.
11. Wildlife crossings wherever wildlife corridors are interrupted by roadways, as determined by the EIA, shall be included.
12. Unutilized existing structures should be removed from ecosystems and their buffers identified in the EIA.
13. Lighting shall be designed to provide the minimum necessary for safety purposes and to avoid light intrusion throughout the parcel and particularly within the ESA.
14. Landscape requirements on the property, outside of the Environmentally Sensitive Areas, shall be complementary and supportive of the habitat types and ecosystem values within the protection areas.
15. The ecological value of the ESA should be enhanced by adding habitat features such as nest boxes.
16. Dedication of the Environmentally Sensitive Area, including a stream and surrounding areas, to the City of Courtenay for the preservation of the area, prior to development or subdivision of land containing or adjacent to an ESA is encouraged. These lands may not be donated in lieu of five percent parkland subdivision requirement.

## ***Restoration and recovery***

17. Environmental restoration may be required where an area has been previously cleared of native vegetation, or is cleared during the process of development. Recovery efforts may be required to enhance or re-introduce species, subspecies and populations where species are threatened, endangered, or extirpated.
18. Disturbed areas, areas of invasive species removal, or where planting stock is thin or bare shall be replanted or supplemented within the ESA identified in the EIA. Restoration plans are subject to the following guidelines:
  - a. Restore disturbed areas quickly (with consideration given to hydrologic and climatic variables) to minimize erosion, ensure sediment control, and prevent the spread of invasive species.
  - b. Use trees, shrubs, and ground cover native to the area and adapted to specific site conditions today (soil type, sun shade, and moisture) and for a changing climate, and promote habitat and erosion control functions.
  - c. Replace removed trees based on the recommendations of the EIA.
  - d. Seed those areas not covered or restored with trees, shrubs, or groundcover with native herbaceous plants, grasses, or legumes.
19. Artificial habitat features such as nesting boxes, spawning beds, and modified wildlife trees, snags, and raptor perching trees should be located where safe to do so.
20. Restoration and recovery plans must:
  - a. Be prepared by a Registered Professional Biologist.
  - b. Address opportunity for retention of existing native vegetation within the development area(s), use native species, recommend timing for plantings, provide cost estimates for the works, and recommend monitoring measures during and after said works.
  - c. Include restoration recommendations for artificial habitat features where applicable.
  - d. Be accompanied with securities to fulfill the restoration works in accordance with the Development Procedures Bylaw.
  - e. Be monitored for a minimum of five years following restoration activities.

## ***Fences, trails, and signage***

21. ESA including individual trees should be protected with permanent fencing and shall follow the protection measures identified in the EIA.
22. Fencing shall prevent encroachment into the protected areas, while also allowing for wildlife passage, as identified in the EIA. Permanent fencing specifications are to be approved by the City. Fencing must be installed sensitively so as not to damage tree roots.
23. ESA shall be protected from intrusion by motor vehicles with a curb or other suitable protective barrier if roads, driveways, or parking areas abut the ESA.
24. Trails, including stairways, where applicable, shall be designed to:
  - a. Minimize the impacts of recreational use on ESAs and adjacent natural areas and systems;
  - b. Minimize slope disturbance and changes to natural drainage patterns; and
  - c. Be designed to prevent unauthorized motorized vehicle use to the maximum extent possible.
25. Permanent signage to identify the ESAs and their values should be provided in areas where public access is provided.



## ***Construction phase***

26. Work shall be scheduled during times that minimize impact to all identified wildlife, recognizing that different species have different sensitive timing windows and some seasons pose greater development risk. For example, soil disturbance activities should be completed during the dry months of the year, while tree and vegetation cutting should occur outside of nesting windows. This includes taking care to schedule sensitive activities:
  - a. Outside of known wildlife migration seasons;
  - b. Outside of breeding, birthing, and rearing seasons (refer to Section 4 of 2014 Develop with Care Manual for breeding least risk windows where available, and Registered Professional Biologist for recommendations); and
  - c. Within least risk regional timing windows for aquatic species.
27. The roots of trees and native vegetation shall be protected during construction. Temporary fencing should be a minimum height of 1.2 m and supported by poles placed at 2.5 m intervals. The fence shall remain in place throughout clearing, site preparation, construction, or any other form of disturbance. Fencing must be installed sensitively so as not to damage tree roots.
28. Invasive plant species shall be removed, controlled, and disposed of using site and species appropriate methods and under the guidance of a Registered Professional Biologist.
29. Native plants of high conservation value should be salvaged prior to clearing.
30. Foreign material shall not enter into any ESAs, including – without limitation – stockpiled materials and vehicles, garbage, greases, oils, gasoline, sediments, pesticides and other contaminants during and after the construction phase of the proposed development.
31. Sediment containment and erosion control measures shall be installed prior to any development activity and ensure they are regularly maintained to fulfill their purpose.
32. Environmental monitoring may be required to confirm the completion and compliance with required conditions of the Development Permit. Where required, monitoring shall include regular reports prepared by a Registered Professional Biologist, during construction and for the duration of the works and maintenance period.
33. A phased clearing approach may be required on large developments that are expected to be developed over a number of years in order to reduce erosion and sediment risk.

## ADDITIONAL GUIDELINES FOR DEVELOPMENT SUBJECT TO RIPARIAN AREAS PROTECTION REGULATION

The Riparian Areas Protection Regulation (RAPR) is a provincial regulation that calls on local governments to protect riparian areas during residential, commercial, and industrial development ensuring that a Qualified Environmental Professional conducts a science-based assessment of proposed activities and develops mitigation measures to avoid impacts from development to fish and fish habitat, particularly riparian habitat.

Local governments must provide protections that meet or exceed these provincial requirements. The guidelines provided below fulfill this objective and clarify when a RAPR assessment report is required as part of an EDP application. The general intent of these guidelines is to require a 30 metre setback in all possible instances, and to defer to the Riparian Area Protection Regulation methodologies for determining stream setbacks only in instances where the property will be undevelopable otherwise.

34. A 30 metre setback shall be provided from the stream boundary on all properties subject to the Riparian Areas Protection Regulation (RAPR). This means:

- a. An Environmental Development Permit (EDP) is required for development on a property that is subject to the RAPR, including on a property that contains a stream or any portion of a Riparian Assessment Area, even if development is not planned for within the Riparian Assessment Area.

- b. For new development subject to the RAPR a 30 metre setback from the stream boundary is required. In such instances the City does not require the submission of an RAPR assessment report as part of the EDP application.
- c. New lot subdivision within the 30 metre setback is not permitted.

35. The following exceptions apply to the 30 metre setback of a stream:

- a. Where a 30 metre setback from the stream boundary results in the property being unable to accommodate any development at all under the designated zoning, the RAPR determined setbacks (Streamside Protection and Enhancement Area, SPEA) may apply.
- b. Where existing structure(s), parking facilities, and landscape areas already encroach into the 30 metre setback:
  - i. When reconstructing or adding to an existing structure is proposed, the RAPR report and enhanced restoration measures that improve the existing condition of the setback are required as part of an EDP application.
  - ii. In the case of redevelopment, the 30 metre setback requirement shall apply wherever possible. However, should it not be possible, then the RAPR assessment report shall set the minimum setback and enhanced restoration measures that improve the existing condition of the setback are required as part of an EDP application.

- c. A policy of net habitat gain, including restoration, shall be adopted wherever a 30 metre setback cannot be achieved due to existing development setbacks, and where the property has space for habitat gain.

36. RAPR reports must be authored or reviewed and signed off by a Registered Professional Biologist.

## **ADDITIONAL GUIDELINES FOR DEVELOPING NEAR THE K'ÓMOKS ESTUARY AND MARINE SHORELINE**

- 37. A natural, vegetated buffer strip within the first 30 metres above the natural boundary of the sea or Courtenay River (including up to Condensory Bridge) shall be maintained except where access is essential for water transport or public use.
- 38. A policy of net habitat gain shall be adopted wherever a 30 metre setback cannot be achieved due to existing development setbacks.
- 39. Aquatic, riparian, and upland areas that have been lost or degraded by previous land uses shall be restored to maximize their value as fish and wildlife habitat.
- 40. Where recreational greenways along the Courtenay River and K'ómoks Estuary are required, public access shall be chosen with respect for estuarine and riparian habitat functions.
- 41. Shoreline scenic and aesthetic qualities that are derived from natural or cultural features, such as shoreforms, natural vegetative cover, scenic vistas, diverse landscapes, historic structures, and rural and wilderness-like shores shall be maintained.

42. Suitable raptor nesting and perching trees identified in the EIA, including veteran recruit trees and trees with natural cavities shall be protected. Where no suitable perching trees are present, the possibility of pruning mature trees in order to make them more attractive to raptors shall be examined.

43. Groups of trees rather than isolated trees shall be retained where possible, to provide an interlocking tree canopy and support tree health.

44. Following the Green Shores Coastal Development Rating System is strongly encouraged including designing to preserve and protect natural beach transportation processes in their natural state.

## **ADDITIONAL GUIDELINES FOR DEVELOPING NEAR RAPTOR AND HERON NESTS**

- 45. Raptors and herons routinely establish new nests and therefore not all nests may be shown on Map 5 "Terrestrial Environmentally Sensitive Areas." The guidelines apply whether a nest is mapped or not.
- 46. A naturally vegetated "no development" buffer shall be maintained. The buffer must be based on scientifically established recommended minimum setbacks and determined by a Registered Professional Biologist with experience in assessments for the species in question. Refer to "Table 2 General guidance on raptor and heron nest setbacks."
- 47. An additional "no disturbance" quiet buffer shall be maintained during breeding seasons. During this time no development activities may take place unless a Registered Professional Biologist provides a mitigation plan to allow identified activities to occur.







48. Both existing and potential nest sites and perching trees as identified in the EIA shall be protected within the vicinity of the nest tree including veteran recruit trees and trees with natural cavities. Where no suitable perching trees are present, examine the possibility of

pruning mature trees in order to make them more attractive to raptors.

49. Groups of trees rather than isolated trees shall be retained where possible, to provide an interlocking tree canopy and support tree health.

**Table 2** General guidance on raptor and heron nest setbacks.

	<b>Species tolerance to activity near nest side (common species listed; list is not exhaustive)</b>	<b>Undeveloped context</b>	<b>Rural context (lot sizes 1-5ha)</b>	<b>Urban context (lots smaller than 1ha)</b>	<b>Additional quiet season buffer</b>
	<p>High tolerance: Osprey, Red-tailed Hawk, Great Horned Owl, Barred Owl.</p> <p>Moderate-high tolerance: Bald Eagle, Cooper's Hawk, Swainson's Hawk, American Kestrel, Merlin, Barn Owl, Northern Saw-whet Owl.</p>	200 metres	100 metres	1.5 tree lengths (approx. 100m) or 50 metres from cliff	Add 100 metres
	<p>Moderate tolerance: Turkey Vulture, Sharp-shinned Hawk, Peregrine Falcon, Northern Harrier, Western Screech-Owl, Short-eared Owl, Northern Pygmy Owl.</p>	500 metres	200 metres	1.5 tree lengths (approx. 100m) or 50 metres from cliff	Add 100 metres
	<p>Low-moderate tolerance: Burrowing Owl, Prairie Falcon.</p> <p>Low tolerance: Northern Goshawk, Spotted Owl.</p>	500 metres	As advised by a Registered Professional Biologist	As advised by a Registered Professional Biologist	As advised by a Registered Professional Biologist
	<p>Great blue heron. Tolerance not identified.</p>	300 metres	200 metres	60 metres	Add 200 metres

Information from Best Management Practices for Raptor Conservation during Urban and Rural Land Development in British Columbia, 2013. Raptor setbacks are measured from the base of the tree; heron setbacks are measured from a line drawn around the outer perimeter of all nest trees.

## ADDITIONAL GUIDELINES FOR DEVELOPING NEAR ECOSYSTEM CONNECTIVITY AREAS

50. Connectivity and linkages of ESAs on the property to adjacent ESAs and other habitat areas shall be maintained wherever possible, and in general accordance with the Ecosystem Connectivity Areas Opportunities identified on Map 5, to develop a continuous network of ecosystems and minimize fragmentation. This means locating development within the parcel where it will cause the least impact to natural habitat and the movement of native fauna between adjacent areas.
51. To the maximum extent possible, the distribution and intensity of native vegetation and cover should be maintained throughout the property.
52. New road and linear utility development within Connectivity Areas shall be avoided to the maximum extent possible. If new road and linear utility development cannot be avoided:
  - a. The length and width of development shall be minimized;
  - b. Crossings shall be narrow and perpendicular to the connectivity area;
  - c. Appropriate wildlife crossing infrastructure as determined by the mitigation measures described in the bio-inventory shall be designed and installed, using best practices for mitigating the effects of roads on local species.



53. Any fencing or other similar barriers to the movement of identified wildlife shall be designed with wildlife movement in mind.