



City of Campbell River Report/ Recommendation to Council

Date: May 25, 2020 File No. 5280-01 WILD
Submitted by: Terri Martin, Long Range Planning and Sustainability, Community Development
Subject: Great Blue Heron Detailed Conservation Measures

Purpose / Introduction

To provide Council with additional details on Great Blue Heron conservation options that were selected by Council at the February 11, 2020 Committee of the Whole meeting.

Recommended Resolutions

THAT an OCP amendment bylaw be prepared for Council's consideration to establish a Great Blue Heron Nest Tree Development Permit Area based on the content presented in Table 1 (page 6) of the Long Range Planning and Sustainability Department May 25, 2020 report;

AND THAT a corresponding amendment bylaw be prepared to the City of Campbell River Environmental Protection Bylaw 3551, 2014 to provide regulatory support for Great Blue Heron habitat retention;

AND THAT options regarding the retention of mature trees important to Great Blue Herons be included in the proposed Campbell River tree protection bylaw;

AND THAT this issue is referred to the Environmental Advisory Committee and Community Planning Advisory Committee for comment.

Background

At the February 11, 2020 Committee of the Whole meeting, Council requested additional information on a number of Great Blue Heron conservation options presented on page 5 of the Long Range Planning and Sustainability Department report dated January 31, 2020.

The conservation options chosen by Council were:

- Include retention of mature trees in the proposed Campbell River tree protection bylaw

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- Establish a 60 metre Great Blue Heron Nest Tree development permit area (DPA) within the urban containment boundary and a 200 metre DPA in the Comprehensive DPA with guidelines that are drawn from the Provincial '*Develop with Care*' documents for urban and rural land development in BC
- Include Great Blue Heron nest trees in the City of Campbell River Environmental Protection Bylaw 3551, 2014 to provide regulatory support to the development permit process
- Conduct annual monitoring of known and suspected Great Blue Heron nest locations using provincially recommended methodology set out by the Heron Working Group

For additional background on what generated concern for Great Blue Heron conservation, the status of the Great Blue Heron and legal protection for Great Blue Herons refer to the January 31, 2020 staff report (attached as Appendix 2).



Figure 1. Recent concerns over the fate of nesting herons on Twillingate Rd and the general decline of heron habitat were triggered by the onset of a five residential lot subdivision immediately adjacent to an active nest site. The land owner keeps detailed records: in 2019 the existing nest was refurbished on 19 March and the two newest nests were constructed on 8 April and 23 April. Ten chicks were produced from the three nests in 2019. In April 2020, a fourth nest was initiated and a small chick has been found dead at the base of one of the trees. This colony now has four Great Blue Heron nests in red alder trees. Photo date: 12 January 2020.

Discussion

Options A & D:

- A. Include retention of mature trees in the proposed Campbell River tree protection bylaw

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- D. Conduct annual monitoring of known and suspected Great Blue Heron nest locations using provincially recommended methodology set out by the Heron Working Group¹

These options are discussed together as the recommended approach is to have a Registered Professional Biologist with expertise in Great Blue Herons review tree retention areas in conjunction with nest monitoring. At the Twillingate nesting site, locals have reported that herons roost in older conifers in various locations along the road in between the colony and the foreshore, and elsewhere herons are known to perch in older trees on the steep slope flanking Hwy 19A. This information is consistent with the scientific literature and these perches/roost sites would be particularly important during high tides and stormy weather when shoreline perching is unavailable.

Annual assessments would be conducted in a similar fashion as the annual Bald Eagle nest tree inventories currently underway. Monitoring activities would include:

1. investigation of reported new nest sites
2. inventory of existing colony sites,
3. activity and productivity observations
4. ensuring that information is uploaded to the Provincial and City mapping/data sets.

It is very helpful for landowners, the development community and staff to have this up to date information for planning purposes. Although some heron monitoring could occur during the Bald Eagle nest tree visits, heron colonies generally require more visits per season than do the eagle nest trees.



Figure 2. Great Blue Heron Life Cycle². A minimum of three and up to six visits to heron colonies through the breeding season starting in February is recommended. The number of visits can be reduced if trained volunteers are willing to make observations and take detailed notes according to established protocols.

In addition to an annual monitoring summary, this year only, the biologist would prepare recommendations for mature tree retention based on heron activity observed, experience and information in the scientific literature. Recommendations would include recruitment nest tree

¹ As described by Vennesland, R.G., and D.M. Norman. 2006. Survey Protocol for Measurement of Nesting Productivity at Pacific Great Blue Heron Nesting Colonies.

² <http://www.sccp.ca/species-habitat/great-blue-heron-fannini-ssp>

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habitat. This document would then form part of the comprehensive background research into the tree protection bylaw. Options for a tree protection bylaw, along with a proposed public consultation plan will be brought forward to Council for review later this year.

A cautionary note is repeated from the last Great Blue Heron staff report. While tree retention sounds achievable on paper, on the ground experience indicates that it is becoming increasingly difficult to retain mature native trees in urban areas due to hazard concerns (real and perceived) where densification is also a goal. It is almost certain that trees forming important habitat for Great Blue Herons (and Bald Eagles) along the waterfront will conflict with a desire for wide-open view corridors cherished by residents. Large trees regularly give way to development near or on the highway steep slope and more significant trees will give way to infrastructure upgrades along a coast that is already being “squeezed” by sea level rise.



Figure 3. Previous public consultation indicates that wildlife and wildlife habitat are highly valued and this is reflected in City OCP policies and other regulations. A local resident who grew up with and values the herons nesting in the Twillingate area produced this graphic. *Great Blue Heron graphic courtesy of Jordan Hollingsworth, Twillingate Rd.*

Option B:

- Great Blue Heron Development Permit Area (DPA) Guideline Content

The most efficient approach is to combine Great Blue Heron nest considerations with the existing Bald Eagle nest tree OCP DPA guidelines. Some modification to the Bald Eagle guidelines will be required in order to achieve joint protection for the two species. This shared approach is a good fit because the species share similar nesting habitat characteristics such as dependence on large trees and marine foraging areas, and they have similar provincially recommended buffer distances.

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Environmental Development Permit Guidelines in an OCP must do two things³:

1. Describe the special conditions or objectives that justify the designation, and
2. Specify guidelines respecting the manner by which the special conditions or objectives will be addressed.

The content of the DPA guidelines described in the table following is drawn from review of Great Blue Heron and Bald Eagle nest tree DPA guidelines in other BC communities⁴, staff experience administering the City's current Bald Eagle nest tree guidelines (including a previous legal review), discussion with provincial biologists/ documents, and analysis from the Environmental Law Centre, University of Victoria⁵

Among the Environmental Law Centre's recommendations were:

1. Provision of detailed mapping
2. Provide a clear list of what activities are considered development
3. Make ecosystem connectivity language more pervasive in DP guidelines and implementation



Figure 4. A review of environmental development permit areas in practice and in case law by the Environmental Law Centre recommended that development permit guidelines should be very detailed in terms of content that is expected in the Qualified Environmental Professional report. This is because a report can only be evaluated based on how it meets the guidelines.

³ As per section 488(2) of the *Local Government Act*

⁴ Rural Comox Valley Official Community Plan, Islands Trust Model Development Permit Guidelines for eagle, raptor and heron habitat protection, Courtenay Raptor and Great Blue Heron development permit guidelines, Parksville Eagle and Heron Nesting and Perch Tree Protection – Development Permit Area No. 14, Saltair Habitat Protection Development Permit Area, RDN Electoral Area H (Deep Bay, Bowser, Qualicum Bay) Eagle and Heron Nesting Trees Development Permit Area

⁵ Environmental Law Centre. 2016. Environmental Development Permit Areas: In Practice and in Caselaw.

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Table 1. Proposed Content for the Great Blue Heron Nest Tree Development Permit Area (DPA). (For additional detail and rationale, please refer to the expanded table in Attachment 1 of this report).

Area Designation
60 metres DPA in the urban containment boundary
200 metres DPA in the comprehensive development permit area
Measured as a radius from base of nest tree or multiple trees
Applies to mapped and unmapped nest trees
List of specific activities that trigger the DP process
Justification
Description of federal and provincial heron status listings and threats
Exemptions
Clarify content required for hazard tree condition assessments
For older nest trees, specify when a DP may no longer apply
Guidelines
Maintain naturally vegetated buffer DPA
If entire DPA cannot be maintained in size or shape, set out requirements for the QEP assessment report
Articulate expectations for mitigation and restoration recommendations
Articulate expectations for site development, monitoring and post development reporting

Option C:

- Include Great Blue Heron nest trees in the City of Campbell River Environmental Protection Bylaw 3551, 2014 to provide regulatory support to the development permit process

Environmental Protection Bylaw content to retain Great Blue Heron habitat will be subject to the OCP development permit guideline provisions. Specific bylaw language will be developed after Council has directed staff on the content of the DPA guidelines.

Conservation Covenants:

A conservation covenant is a voluntary legal agreement that allows landowners to permanently set aside natural features of the land. They are registered against the property title with a summary of the physical description and reference to a detailed baseline inventory. Generally, two organizations such as a government body and a land trust sign the covenant along with the land owner. It is usually the land trust that monitors the conditions of the covenant and they are the party that pursues legal action if the conditions are not met. Generally, an endowment or

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stewardship fund is set up to cover the costs of the perpetual obligation to monitor and, if necessary, enforce the covenant⁶.

Currently, conservation covenants are one of a number of options presented to reduce harm in the City's OCP Streamside DPA guidelines. If Council wishes to apply the option of conservation covenants more broadly to environmental DPA designations including herons, covenants should be pulled from the Streamside DPA guidelines and instead be included in the General Environmental DPA guidelines. Preliminary consultation indicates that covenants have the greatest chance of success when a land trust signs on to the covenant in addition to the land owner and a government body. It is also important to specify who will cover the costs of registering the covenant, conducting a baseline inventory and an endowment fund should be set up with the land trust to cover annual monitoring and potential enforcement costs⁷.

Over the years, staff have approached a number of conservation organizations about entering into covenants to assist with the retention of various environmental features. The Nature Trust of BC and the Nature Conservancy of Canada tend to pursue larger properties with significant connectivity to major systems. They are less inclined to pursue small covenants. Our local groups, Greenways Land Trust and the Great Blue Heron Society are not currently holding conservation covenants.

Before including conservation covenants as a broader option for consideration in the DP process, staff feel there is more work to be done to set up realistic guidelines, and ideally to identify a land trust as a partner. For these reasons staff are not recommending conservation covenants be included at this time. This possibility can be revisited in the future.

Active Developments Underway:

There are two active subdivisions on Twillingate Rd; one is almost 150 metres away and the other is immediately adjacent to the active nest trees (all trees on that lot have been cleared). Only the latter application falls within the proposed DPA; however, changes in regulations are not applied retroactively.

Advisory Committees and Next Steps:

Once Council has reviewed and provided direction on the detailed options in the preceding sections, including DP content, it is recommended this report and associated background information is referred to the Environmental and Planning Advisory Committees for additional consideration, once these Committees resume convening. Draft amendment bylaws will then be prepared for the OCP and the Environmental Protection Bylaw for Council's consideration.

⁶ Land Trust Alliance, British Columbia (revised-2009). Conservation Covenants. A Guide for Developers and Planning Departments. Accessed 9 March 2020: https://ltabc.ca/wp-content/uploads/2012/02/covenants_for_developers_planners.pdf.

⁷ This is consistent with a number of other jurisdictions

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Options

1. Council supports OCP and Environmental Protection Bylaw amendments as per Table 1 on page 6 and in Attachment 1 of this report, supports annual heron inventory and monitoring and that options are prepared to retain mature trees for inclusion in the proposed tree protection bylaw.
2. Option 1 plus inclusion of conservation covenants in the OCP General Environmental DPA guidelines.
3. Choose not to pursue measures to conserve Great Blue Heron habitat at this time.

Staff are recommending Option 1. Implementing some form of conversation measures supports the management objectives for the Pacific Great Blue Heron as proposed in the Species at Risk Act management plan series⁸.

Financial /Operational Considerations

Inventory, monitoring and reporting on Great Blue Heron nest sites as well and the preparation of mature tree options for consideration for the tree protection bylaw are estimated to cost \$3,000 in 2020 and will be covered through the Long Range Planning and Sustainability Department's budget for the tree protection bylaw. Heron monitoring in future years is estimated to be \$2,000 annually and a service level change request will be brought forward for 2021 onwards. Staff time will be required to develop the bylaw amendments and current departmental budgets would cover standard advertising and open house expenses. This work has been accounted for in existing departmental work plans. There will also be fees for legal review of the proposed amendment bylaws, which are covered by operational budgets. Further to Council's direction to prepare a tree protection bylaw, \$15,000 has already been allocated in the budget for that process.

Communications

As the bylaw amendments are developed staff would consult with the appropriate senior government agencies and conservation organizations with heron expertise. Staff will also reach out to other local governments with Great Blue Heron regulations and policies in place to learn from their implementation experience. As development permit areas and bylaw amendments proceed, a public consultation plan will ensue. At that time, the local Qualified Environmental Professional community and the development community would also be included. The development of the proposed Tree Protection Bylaw will have a separate and robust process of community engagement.

⁸ Environment and Climate Change Canada. 2020. Management Plan for the Great Blue Heron *fannini* subspecies (*Ardea herodias fannini*) in Canada. *Species at Risk Act* Management Plan Series. Environment and Climate Change Canada, Ottawa. iii + 26 pp. <https://www.canada.ca/en/environment-climate-change/services/species-risk-public-registry/management-plans/great-blue-heron-fannini-2020.html>

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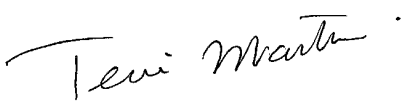


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Conclusion

The Great Blue Heron has high public appeal as a symbol of wetland conservation and environmental quality. Management issues, including housing developments and tree cutting are ongoing concerns that have the potential to affect Great Blue Heron habitat in Campbell River. The low productivity at nests generally, combined with development pressures, make Great Blue Herons a priority for ongoing protection and monitoring⁹. Although there are many heron appreciators in the community it is unrealistic to expect nesting Great Blue Herons and their habitat will persist through good will and education and awareness efforts alone. The conservation options presented would help to slow habitat destruction.

Attachments:

1. BC Great Blue Heron Society and Greenways Land Trust recommendations and staff conservation options – detailed evaluation (9 pages)
2. Great Blue Heron Conservation Measures, Long Range Planning and Sustainability Department January 31, 2020 report (7 pages plus attachments)

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Reviewed for Form and Content / Approved for Submission to Council:	
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Corporate Review	Initials
Assets and Operations	AW
Community Development	AG; AZ

⁹ Chatwin, T., T. Dunlop and R. Joy. 2009. Pacific Great Blue Heron Population and Monitoring Vancouver Island and the Gulf Islands 2007 and 2008. Prepared for: Ministry of Environment and the Heron Working Group.

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Attachment 1

Expanded Content and Rationale for the Proposed Great Blue Heron Nest Tree Development Permit Area (DPA)

(9 pages)

Area Designation	
Recommendation	Comments
60 metres DPA in the urban containment boundary	Consistent with Provincially recommended buffers Some communities have three categories: urban, rural and undeveloped applying 60, 200 and 300 metres respectively
200 metres DPA in the comprehensive development permit area	Some communities set 300 metre DPAs in undeveloped areas
Measured as a radius from base of nest tree or if multiple trees, from the outer perimeter of the tree bases	To be consistent with how measurements are made for the Bald Eagle nest tree DPA, the distance is proposed from the base of trees as opposed to the drip line of the nest tree as seen in some other jurisdictions
Applies to mapped and unmapped nest trees	Consistent with other communities and with recently proposed OCP text amendments
Development activity triggers the DP process Development means removal, alteration, disruption or destruction of vegetation, significant and new landscaping, disturbance of soil, including the removal and deposit of soil, construction, erection or demolition of buildings and structures, flood protection works, construction of trails, docks, wharves and bridges, provision and maintenance of sewer and water services, development of drainage systems, development of utility corridors and subdivision	Provides additional detail to current wording "all land alteration, or development" to make consistent with trigger for riparian legislation
Justification	
Recommendation	Comments
Include status information for Great Blue Herons <ul style="list-style-type: none">Provincially Blue-Listed (vulnerable)Federally listed Special ConcernSmall population with productivity declinesSusceptible to eagle predation, human disturbance and development related habitat loss	Specific ecological details previously provided in the Long Range Planning and Sustainability Department report (Jan. 31, 2020) <i>Great Blue Heron Conservation Measures</i>

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Exemptions	
Recommendation	Comments
<p>There is already list of exemptions that apply to environmental development areas covering emergency management including hazard tree considerations, public works and services and environmental restoration.</p> <p>General DP exemptions suggested edits:</p> <ul style="list-style-type: none">Hazard tree condition assessments must specify assessment targets and must reference the Wildlife Tree Committee of British Columbia Wildlife/Danger Tree –Parks and Recreation Sites moduleEmergency management follow up <u>may</u> trigger a full DP application <p>Great Blue Heron and Bald Eagle specific exemptions:</p> <ul style="list-style-type: none">The DP area may not be triggered if a QEP certifies in writing that a known (mapped or unmapped) nest tree has deteriorated to the point that the tree will no longer be able to support a nest	<p>The current hazard tree exemption is too broad allowing for very subjective and inconsistent recommendations from tree professionals</p> <p>Currently, a DP is required <u>after all</u> emergency management. If works are minor, for instance the removal or modification of a few trees, a full DP may not be warranted and some discretionary ability for staff to not apply a DP is advisable</p> <p>Removing the DP requirement for aging trees through an exemption would replace the existing wording in the eagle guidelines referring to a five-year waiting period</p>
Guidelines	
Recommendation	Comments
Maintain naturally vegetated buffer DPA	As per the area designation OCP prescribed distance
<p>If the DPA cannot be naturally maintained, a QEP assessment report must:</p> <ul style="list-style-type: none">Describe the proposed developmentDemonstrate that all avenues to avoid and minimize development in the DPA have been exhaustedMap all historical and current nest sites in the immediate areaConsult with the provincial heron data base, include previous local reports (where applicable) and include local knowledgeMap and include an assessment of important buffer, roost and perch trees	<p>If development activities change, the QEP report must be amended to reflect the changes in scope; this is consistent with riparian regulations for streamside proposals</p> <p>The onus lies with the applicant to demonstrate that encroaching into the DPA is unavoidable</p> <p>Nest / colony movement and nesting history is a strong predictor of future use and indicates important feeding sites</p> <p>Most local governments recognize the importance of ecosystem connectivity yet fail</p>

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<ul style="list-style-type: none">• Describe the habitat noting species present, degree and age of tree cover, invasive species present• Describe connectedness and importance of the DPA habitat to other natural area corridors• Comment on existing uses in the DPA that are grand-parented and how this impacts habitat• Include photo documentation	<p>to address fragmented habitat in development permit guidelines; connectedness has been addressed</p> <p>Existing General Environmental DPA guidelines already include variances to zoning setbacks and density clustering to improve environmental outcomes</p>
<p>The shape of the DPA may be altered based on QEP assessment provided there is no net loss of area to retain important habitat features that do not fall within the standard radius measurement</p>	<p>This allows for bending of the buffer to capture nearby significant trees or other habitat features important to the nesting birds that might not otherwise be captured</p> <p>Altering the DPA shape is to improve habitat retention, not specifically to accommodate building desires although this may be an outcome</p>
<p>Any DPA encroachment or alterations to its shape must be accompanied by specific QEP mitigation and restoration recommendations:</p> <ul style="list-style-type: none">• Provide tree protection plans completed by a certified arborist to be put in place to ensure how nest and other significant tree health will be maintained during site development and over the long term as a result of the development (may include hydrological considerations); wind firmness of perimeter trees must be discussed• Demonstrate that there is enough room for whole nest tree failure to occur so as not to create targets and hazard tree concerns• Consider signage and fencing or some form of demarcation indicating the buffer boundary to deter encroachment into the DPA buffer during construction and over time• If required, garbage removal and invasive species management plans must be detailed with the purpose of improving habitat• If required, revegetation plans that include native species tree recruitment; natural regeneration is	<p>A DPA is first and foremost a natural area meant to retain critical habitat; site development must permit trees in the DPA buffer to age naturally</p> <p>Reducing nest sites to a few trees or a lone tree dooms site viability over the long term and is to be avoided through more rigorous tree protection planning</p> <p>DPA buffers under nest trees get covered in whitewash, leftover prey items and bits of carcasses and nest sticks; there should be no expectation of “tidying” the area up</p> <p>Encroachment is an ongoing concern in all environmentally sensitive areas</p> <p>The purpose of the DPA buffer is to maintain nesting habitat over time regardless of nesting activity in a given season; a buffer should not be viewed as a temporary hindrance to be liquidated the moment a nest falls or the nest tree fails</p>

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acceptable provided there is adequate monitoring	
<p>The QEP assessment report must include the following site development, monitoring and post development reporting information:</p> <ul style="list-style-type: none">• Specific recommendations for timing or phasing the development based on work consistent with provincial develop with care documents so as to avoid new disturbances between 15 January and 15 September when herons are nesting• Detailed nest monitoring schedule to determine the effect of potential disturbances to breeding birds and to record nesting success according to recommended provincial methodology• It must be clear that the nest monitor has the power to stop construction if nesting is disrupted by development activities• Construction and nest monitoring notes must be taken and included with the QEP post development assessment report• QEP post development assessment report must clearly demonstrate how the DPA buffer criteria have been met including mitigation and restoration efforts; include photo-documentation• QEP must report nest site observations / status to the relevant government agencies and include documentation of this in their post development reporting• QEP post development assessment report must outline any recommendations outstanding and the timing for implementation of these including reporting requirements	<p>There is almost always a certain amount of existing urban development in the DPA that would be grand-parented</p> <p>Monitoring efforts will be variable depending on site conditions; however, some level of monitoring is expected and to ensure development conditions are being met</p> <p>Post development reporting is used to determine compliance with the DP and for release of the environmental security</p> <p>Reporting back to the collective federal and provincial databases keeps the information current helping all users in the future. This also aligns with the OCP General Environmental DPA justification to add to the collective ecological knowledge base through contributions to the BC Conservation Data Centre</p>

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Attachment 2

Great Blue Heron Conservation Measures, Long Range Planning and Sustainability Department
January 31, 2020 report

(7 pages plus attachments)



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Date: January 31, 2020 File No. 5280-01 WILD
Submitted by: Terri Martin, Long Range Planning and Sustainability, Community Development
Subject: Great Blue Heron Conservation Measures

Purpose / Introduction

To provide Council with Great Blue Heron conservation options for consideration.

Recommended Resolutions

THAT Council identifies conservation options for the Great Blue Heron as presented on page 5 of the Long Range Planning and Sustainability Department January 31, 2020 report that it would like brought back for further consideration.

Background

In March 2019, City Council received letters from both the BC Great Blue Heron Society and Greenways Land Trust recommending that the City implement a number of conservation measures to protect Great Blue Herons. The Campbell River Environmental Committee also wrote in support of these recommendations. The letters are included as attachments to this report.

Council requested that staff report back with options to address the recommendations:

What Generated the Letters of Concern?:

Recent concerns over the fate of nesting herons and the general decline of heron habitat were triggered with the onset of a five residential lot subdivision on Twillingate Rd, immediately adjacent to nesting Great Blue Herons. The project prompted correspondence to City Council and staff urging increased protection for herons and trees from a number of land owners in the Twillingate Rd area, the BC Great Blue Heron Society, the Campbell River Environmental Committee and Greenways Land Trust.

Currently, the Twillingate Rd nest site is the only confirmed active Great Blue Heron nest location in Campbell River although there are historical records (with no sign of nesting in recent years) and suspected nests at four other locations: Woods Creek-historic; Nunns Creek-historic; Hidden Harbour embankment-to be confirmed; top of Island Hwy steep slope-to be confirmed.

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Nesting history in the Twillingate area extends back to at least 2008 according to provincial records and the current nest location has been active since 2017 expanding from one nest to three during the 2019 breeding season. This is the most persistent heron nesting activity in recent years. Landowner and local information confirm that the nesting herons use the foreshore ~300 metres to the east as the principal feeding location and that a number of evergreens along Twillingate are used for roosting, including during the winter months.



Figure 1. Three Great Blue Heron nests in red alder trees on Twillingate Road, 12 January 2020. The land owner keeps detailed notes on heron activity. In 2019 the existing nest was refurbished on 19 March and the two newest nests were constructed on 8 April and 23 April. Ten chicks were produced.

Great Blue Heron Status and Conservation Concerns:

The Great Blue Heron (*Ardea Herodias, fannini* subspecies) is a provincially Blue-Listed (vulnerable) species in BC and is listed as Special Concern federally by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The COSEWIC status report notes:

In Canada, this subspecies distributed along the coast of British Columbia has a relatively small population that is concentrated at a few breeding colonies in southern British Columbia. There is evidence of declines in productivity and it is unclear whether the population is stable or declining. Threats from eagle predation, habitat loss and human disturbance are ongoing, particularly in the southern part of the range where concentrations of birds are highest.¹

¹ COSEWIC. 2008. COSEWIC assessment and update status report on the Great Blue Heron *fannini* subspecies *Ardea herodias fannini* in Canada. Committee on the Status of Endangered Wildlife in

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An estimated 4-5,000 nesting adults make up the coastal subspecies population of Great Blue Herons in BC² and the Vancouver Island and Gulf Island population is thought to contribute about 500 pairs to this population estimate. Herons are tree nesters that may nest individually or in colonies that sometimes exceed more than 100 nesting pairs. Nests are usually within 10 km of suitable foraging areas such as the marine shoreline.



Figure 2. Two to four week old Great Blue Heron chick. The degree to which development and human activity disturbs nesting herons is highly variable. Fewer than 25% of juveniles survive their first winter.

Disturbances, especially during the early stages of nesting including unusual events and loud noises such as mechanical chippers, chainsaws, and large trucks may cause the herons to abandon their nests. Although some breeding colonies are more tolerant than others to human activity, studies suggest that habituation to even common stimuli, such as pedestrians, might be a yearly phenomenon and each year the herons need to become re-accustomed to the disturbance. Forest fragmentation may also increase nest exposure, heightening Bald Eagle predation. Human activity near colonies also compounds the threat posed by eagle predation; when disturbed, herons leave nests unguarded and vulnerable.

Development pressures are ongoing which reduce tree cover along riparian corridors, wetlands are drained and infilled, foreshore activity disrupts prime feeding locations, and mature trees used for nesting, perching and roosting are increasingly being lost. The Committee on the

Canada. Ottawa. vii + 39 pp. Available from:
(www.sararegistry.gc.ca/status/status_e.cfm).https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_great_blue_heron_0808_e.pdf

² <http://www.sccp.ca/species-habitat/great-blue-heron-fannini-ssp>

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Status of Endangered Wildlife in Canada (COSEWIC) reports that in south-coastal British Columbia, nesting habitat might be limiting the size of the heron population and suitable tall trees used for nesting habitat near foraging areas³.



Legal Protection for Great Blue Herons:

Heron nests, like Bald Eagle nests, are 'protected' under Section 34 of the BC *Wildlife Act*. Disturbances causing nest abandonment may be considered 'molestation', which is also an offence under the *Wildlife Act*. Heron nest trees can only be removed with a provincial permit and may also be subject to Environment Canada federal permitting under the Migratory Birds Convention Act regulations.

Provincial guidelines arising from the 'Develop with Care' documents are not regulatory. When followed, these best practises including vegetated buffers and additional breeding season quiet times, help to reduce harm and decrease the likelihood of 'molestation' under the *Wildlife Act*. Because the guidelines are not regulatory, the Province has no ability to require their application during development and no enforcement ability. However, local governments do have the ability to use these provincial guidance documents to create their own regulatory tools that are enforceable.

³ COSEWIC. 2008. COSEWIC assessment and update status report on the Great Blue Heron *fannini* subspecies *Ardea herodias fannini* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. vii + 39 pp. (www.sararegistry.gc.ca/status/status_e.cfm).

Discussion

BC Great Blue Heron Society and Greenways Land Trust Recommendations:

The following table lists the recommendations submitted and conservation options for Council's consideration. For additional detail on each of the recommendations including analysis of the current situation and the rationale for the proposed conservation options, please refer to the first attachment to this report.

BC Great Blue Heron Society Recommendations	Conservation Options for Council Consideration
1. Implementation of a comprehensive tree bylaw prioritizing the retention of mature trees	A. Include retention of mature trees in the proposed Campbell River tree protection bylaw
2. Formal protection for heron nest and roosting trees, buffers and feeding areas	B. Establish a 60 metre Great Blue Heron Nest Tree development permit area (DPA) within the urban containment boundary and a 200 metre DPA in the Comprehensive DPA with guidelines that are drawn from the Provincial ' <i>Develop with Care</i> ' documents for urban and rural land development in BC C. Include Great Blue Heron nest trees in the City of Campbell River Environmental Protection Bylaw 3551, 2014 to provide regulatory support to the development permit process
3. Comprehensive local research and planning for heron habitat	D. Conduct annual monitoring of known and suspected Great Blue Heron nest locations using provincially recommended methodology set out by the Heron Working Group
4. Mandatory protection of sensitive habitats on public and private land	E. No further recommendations at this time beyond those noted in B and C above
5. Adoption of an accounting model that recognizes the value of natural areas	F. No specific recommendations at this time
6. Specific actions for the heron nest on Twillingate Rd	G. No further recommendations at this time beyond those noted in A, B and C above
Greenways Land Trust Recommendations	Conservation Options for Council Consideration
1. Hiring of a full-time arborist	A. Complete – a full time arborist has been hired in the position of Arboriculture Technician
2. Development and implementation of a Tree Protection Bylaw	B. In progress – Council allocated \$15,000 in the 2019 budget to prepare a tree protection bylaw

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Environmental Advisory Committee:

Should Council decide to pursue one or more of the conservation options listed in the proceeding table on page 5, staff will develop these options with the appropriate detail for review at an upcoming meeting. After Council has had an opportunity to review this more detailed submission, the options could then be forwarded to the City's Environmental Advisory Committee for review and discussion.

Options

1. Council identifies conservation options for the Great Blue Heron from the table as presented on page 5 that it would like brought back for further consideration.
2. Option 1 with modifications suggested by Council.
3. Choose not to pursue specific measures to conserve Great Blue Heron habitat.

Staff are recommending Option 1. Implementing some form of conversation measures supports the management objectives for the Pacific Great Blue Heron as proposed Species at Risk Act management plan series.⁴

Financial /Operational Considerations

Should Council choose any of the conservation options from Table 5, staff time would be involved to develop a detailed submission for further consideration. There are no additional financial resources required at this time.

Communications

Should more detailed conservation options be developed staff would consult with the appropriate senior government agencies and conservation organizations with heron expertise. Staff will also reach out to other local governments with Great Blue Heron regulations and policies in place to learn from their implementation experience. Depending on Council direction, any future heron development permit areas and bylaw work would include open houses, public hearings and media outreach. At that time, the local Qualified Environmental Professional community would also be included as part of the outreach process. The development of the proposed Tree Protection Bylaw will also have a robust process of community engagement.

Conclusion

The Great Blue Heron has high public appeal as a symbol of wetland conservation and environmental quality. Management issues, including housing developments and tree cutting are ongoing concerns that have the potential to affect Great Blue Heron habitat in Campbell River. The low productivity at nests generally, combined with development pressures, make

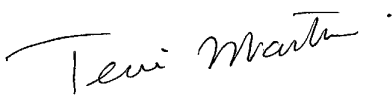


⁴ Environment Canada. 2016. Management Plan for the Great Blue Heron *fannini* subspecies (*Ardea herodias fannini*) in Canada [Proposed]. *Species at Risk Act* Management Plan Series. Environment Canada, Ottawa. iii + 26 pp. https://www.registrelep-sararegistry.gc.ca/virtual_sara/files/plans/mp_great_blue_heron_fannini_e_proposed.pdf

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Great Blue Herons a priority for ongoing protection and monitoring.⁵ Although there are many heron appreciators in the community it is unrealistic to expect nesting Great Blue Herons and their habitat will persist through good will and education and awareness efforts alone. The conservation options presented would help to slow habitat liquidation.

Attachments:

1. BC Great Blue Heron Society and Greenways Land Trust recommendations and staff conservation options – detailed evaluation (9 pages)
2. BC Great Blue Heron Society letter, 7 March 2019 (7 pages)
3. Greenways Land Trust letter, 7 March 2019 RE: Heron Tree Protection and Update on City Arborist and Tree Protection Bylaw (1 page).
4. Campbell River Environmental Committee letter, 5 April 2019 (1 page).
5. Develop with Care. 2014. Fact Sheet #11. Great Blue Herons. Environmental Guidelines for Urban and Rural Land Development in British Columbia. Province of British Columbia (2 pages).
6. Map showing approximate location of Great Blue Heron nests on Twillingate Road and for illustrative purposes showing 60 metre and 200 metre Development Permit Areas (1 page).

Prepared by:	Reviewed by:
 Terri Martin BSc, RPBio Environmental Specialist	 Chris Osborne MRTPI, MCIP, RPP Acting Manager Long Range Planning & Sustainability
Reviewed for Form and Content / Approved for Submission to Council:	
 Deborah Sargent, MCIP, RPP City Manager	
Corporate Review	Initials
Community Development	PW/AG

⁵ Chatwin, T., T. Dunlop and R. Joy. 2009. Pacific Great Blue Heron Population and Monitoring Vancouver Island and the Gulf Islands 2007 and 2008. Prepared for: Ministry of Environment and the Heron Working Group.

Attachment 1

BC Great Blue Heron Society and Greenways Land Trust recommendations and staff
conservation options – detailed evaluation
(9 pages)

BC Great Blue Heron Society Recommendation 1:

Implementation of a comprehensive tree bylaw prioritizing the retention of mature trees

Greenways Recommendations 1 and 2:

Hiring of a full-time arborist. Development and implementation of a Tree Protection Bylaw

Current Condition:

A full-time arborist has been hired in the position of Arboriculture Technician and this position is involved in all aspects of urban forest management planning.

Further to Council's direction to prepare a tree protection bylaw and associated allocation of funding in the 2019 budget (\$15,000), comprehensive background research has been carried out, and options developed which have been reviewed by the City's Environmental Advisory Committee. Options for a tree protection bylaw, along with a proposed public consultation plan will be brought forward to Council for review later this year.

Specific elements of a proposed tree bylaw for Campbell River, such as prioritizing the retention of mature trees, have yet to be determined. A cautionary note is warranted; while tree retention may sound achievable on paper, on the ground experience indicates that it is becoming increasingly difficult to retain mature native trees in urban areas where densification is also a goal.

Although Campbell River has not conducted detailed heron surveys, the scientific literature cites that during non-breeding periods herons roost high up in mature trees in close proximity to foraging sites. At the Twillingate nesting colony, herons are reported to roost in older conifers in various locations along the road in between the colony and the foreshore, and elsewhere herons are known to perch in older trees on the steep slope flanking Hwy 19A. These perches/roost sites would be particularly important during high tides and stormy weather when shoreline perching is unavailable.

Conservation Recommendation:

Include retention of mature trees in the proposed Campbell River tree protection bylaw.

Although this may not be realistic in all areas of the City where densification is a primary goal, critical wildlife areas and corridors could be identified as having higher priority for mature tree retention. Locations of significance for Great Blue Herons would include coastal areas, riparian corridors and the Hwy 19A steep slope. The challenge is that often tree retention in these areas generates hazard tree concerns, conflicts with a desire for wide-open view corridors cherished by residents, and large trees give way to infrastructure upgrades in an already developed and increasingly coastal squeezed location given sea level rise pressures.

BC Great Blue Heron Society Recommendation 2:

Formal protection for heron nest and roosting trees, buffers and feeding areas

Current Condition:

Great Blue Heron nest trees are a named environmentally sensitive feature in the Official Community Plan (OCP) that must be considered in the Comprehensive Development Permit Area outside of the urban containment boundary. If a Great Blue Heron nest is located in the comprehensive development permit area, an applicant proposing development (which includes vegetation/ tree removal and soil disturbance) is required to work with a Qualified Environmental Professional (QEP) to establish buffers and implement other harm reduction measures that are consistent with provincial guidance documents. Currently there are no known active heron nests in the comprehensive development permit area and staff have never processed an application where a heron nest was identified.

For nests within the urban containment boundary, such as the Twillingate site, only the *Wildlife Act* applies; there are no development permit areas or guidelines requiring the establishment of buffers or requiring the implementation of harm reduction measures, such as 'quiet times' during construction. The City is not able to enforce the provincial *Wildlife Act*; it can only notify the Province of suspected breaches through the RAPP (Report all Poachers and Polluters) line.

There are no specific protections for heron roosting trees and feeding areas anywhere in the City although a minor amount of tree retention benefitting herons may occur through other environmental development permit areas such as the foreshore, streamside and hazard (steep slope) designations.

Conservation Recommendation:

Establish a 60 metre Great Blue Heron Nest Tree Development Permit Area within the urban containment boundary and 200 metre Development Permit Area in the comprehensive development permit area with guidelines that are drawn from the Provincial 'Develop with Care' documents for urban and rural land development in BC.

Further, include Great Blue Heron nest tree protection in the City of Campbell River Environmental Protection Bylaw 3551, 2014 to provide regulatory support to the development permit process.

The BC Ministry of Environment's most recent version of the "Develop with Care, Great Blue Herons Fact Sheet #11" is attached for reference.

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For nest colonies, the standard practice is for the development permit area (DPA) to extend from the outer perimeter of the base of all of the known nest trees. This is consistent with a number of heron development permit areas currently in place including:

- Electoral Area H Regional District of Nanaimo (Deep Bay, Bowser and Qualicum Bay),
- Islands Trust,
- Comox Valley,
- Courtenay,
- Parksville,
- Nanoose Bay.

A map showing the approximate location of the Twillingate Rd Great Blue Heron nests is attached as an appendix showing a 60 metre and a 200 metre development permit area for illustration purposes.

Ideally, Great Blue Heron nest tree protection should also be included in the Environmental Protection Bylaw in a similar fashion as Bald Eagle nest trees. It would be important to ensure that mapped and unmapped nests are included in the DPA designation as nest locations are dynamic, especially in areas of high disturbance. Some colonies are used for many years, but most colonies, especially those with fewer than 25 nests, may be relocated every few years. Sometimes herons return to a site after several years of no use.⁶

⁶ Vennesland, R.G., and D.M. Norman. 2006. Survey Protocol for Measurement of Nesting Productivity at Pacific Great Blue Heron Nesting Colonies. (http://www.sccp.ca/sites/default/files/species-habitat/documents/survey%20protocol%20measuring%20productivity%20gbh%20nesting%20sites%20Vennesland%20and%20Norman%202006_0.pdf).

BC Great Blue Heron Society Recommendation 3:

Comprehensive local research and planning for heron habitat

Current Condition:

There is no specific research or planning for heron habitat underway at the City. When nest reports are periodically submitted, some investigation may occur and be shared with Provincial wildlife staff (including nest activity observations, land owner information and development concerns). Information sharing is important as the Province holds the primary heron colony database and alerts enforcement staff if there is a conflict with the *Wildlife Act*. Heron nest reports do not necessarily trigger Provincial monitoring which tends to be limited and sporadic. If development is occurring near a known or suspected nest location, City staff encourage the applicant to retain a Qualified Environmental Professional, to follow the Provincial Develop with Care guidelines and applicants are reminded that Great Blue Heron nests are subject to the provincial *Wildlife Act*.

Conservation Recommendation:

Conduct annual monitoring of known and suspected Great Blue Heron nest locations in Campbell River using provincially recommended methodology set out by the Heron Working Group.⁷

Annual assessments would be conducted in a similar fashion as the annual Bald Eagle nest tree inventories currently underway. Contract details would include investigation of reported new nest sites, inventory of existing colony sites, activity and productivity observations and ensuring that information is uploaded to the Provincial and City mapping/data sets. It is very helpful for landowners, the development community and staff to have this up to date information for planning purposes. Although some heron monitoring could occur during the Bald Eagle nest tree visits, heron colonies generally require more visits per season than do the eagle nest trees.

⁷ As described by Vennesland, R.G., and D.M. Norman. 2006. Survey Protocol for Measurement of Nesting Productivity at Pacific Great Blue Heron Nesting Colonies.

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Figure 2. Great Blue Heron Life Cycle⁸. A minimum of three and up to six visits to heron colonies through the breeding season starting in February is recommended. The number of visits can be reduced if trained volunteers are willing to make observations and take detailed notes according to established protocols.

BC Great Blue Heron Society Recommendation 4:

Mandatory protection of sensitive habitats on public and private land

Current Condition:

An extensive range of sensitive habitat is already recognized in the OCP and covered by the development permit process (foreshore, estuary, streamside, drinking watershed and Bald Eagle nest trees). In the comprehensive development permit area, development must also consider Great Blue Heron nest sites, listed plant and animal species as well as listed plant communities and the joint federal-provincial sensitive ecosystem inventory polygons (rare woodlands, older forests, older second growth forests, seasonally flooded agricultural fields, terrestrial herbaceous, coastal bluff, sparsely vegetated and wetland ecosystems).

Note that these mechanisms help to reduce harm to valued ecosystems and features. The term 'habitat protection' is overused and is increasingly being recognized as an 'oversell' when conservation outcomes are evaluated. As long as the human population, our communities and the economy continues to grow, sensitive habitats will be lost or diminished. Even when land is set aside in a reserve or nature park, it is still subject to pollution, erosion, human disturbance, climate change, edge effects, invasive species, encroachment and so on. Thus, planning and regulatory tools should be viewed as harm reduction approaches as opposed to protection mechanisms.

Conservation Recommendation:

Beyond the establishment of Great Blue Heron Nest Tree Development Permit Areas and corresponding inclusion of the herons in the Environmental Protection Bylaw, there is no further recommendation at this time.

⁸ <http://www.sccp.ca/species-habitat/great-blue-heron-fannini-ssp>

BC Great Blue Heron Society Recommendation 5:

Adoption of an accounting model that recognizes the value of natural areas

Current Condition:

Asset management, which is the process of inventorying a community's existing assets, determining the current state of those assets, and preparing and implementing a plan to maintain or replace those assets, allows municipalities to make informed decisions regarding a community's assets and finances. The City is currently in the process of finalizing an Asset Management Investment Plan, which is anticipated to be complete in the spring of 2020. This information will become an integral component of forming an Asset Management Plan for Campbell River. As the City's asset management process evolves, it will become increasingly important to plan for both natural and engineered assets as critical components of holistic strategic and financial long-term planning.

Although the City is not yet in the position of incorporating natural assets into the asset management plan, various plans and policies reference the value of ecosystem services provided by nature as living or green infrastructure including the urban forest management plan.



Figure 3. In November 2019, the City recognized the many ecosystem services provided by the big-leaf maple tree on the front lawn of City Hall on a “See the Tree” sign. Values include the amount of pollution removed, rainwater absorbed and carbon sequestered annually and the total amount of carbon stored.

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Conservation Recommendation:

No specific recommendation at this time.

As the City's Asset Management Investment Plan progresses, staff will begin exploring options to include natural areas into the plan for Council's consideration. Staff are also monitoring opportunities to participate in a pilot project with the Municipal Natural Areas Initiative (MNAI), possibly for consideration by Council in 2021. The MNAI team provides scientific, economic and municipal expertise to support and guide local governments in identifying, valuing and accounting for natural assets in their financial planning and asset management programs.

BC Great Blue Heron Society Recommendation 6:

Specific actions for the heron nest on Twillingate Rd

Current Condition:

The Twillingate land owner with the heron nests is supportive of the birds and is taking detailed notes and sharing information with City and provincial staff. The developer on the adjacent property to the nests is aware of the heron nesting activity, the provincial regulations and guidelines, and a Qualified Environmental Professional was retained prior to the onset of land clearing which began in the fall of 2018⁹. Although the land clearing appears to be within the recommended provincial buffer zone and site works were ongoing during the spring of 2019 during the provincially recommended no disturbance quiet time recommended in the breeding season, the herons continued to nest and the number of nests increased from one to three – all fledging young.

Conservation Recommendation:

Beyond the establishment of Great Blue Heron Nest Tree Development Permit Areas and corresponding inclusion of the herons in the Environmental Protection Bylaw, there is no further recommendation at this time.

A proposed DPA would not include all of the land and tree cover that the Twillingate Rd herons are known to use between the colony and the foreshore. The lots along Twillingate Rd are quite large and generally larger lots have the potential to allow for greater tree retention while small lots almost guarantee the loss of tree cover, especially mature trees. A tree bylaw that speaks to the retention of mature trees would have specific benefits to this colony and the City could also consider larger parcel zoning in selected areas such as Twillingate to support tree retention. Note that this also represents a trade-off in terms of overall policies to encourage densification and infill.

⁹ Although the City requested a copy of the heron biology report, it was not provided, and since there is no Great Blue Heron Nest Tree Development Permit Area, a report was not required. It is unknown if the developer retained an environmental monitor.

Attachment 2

BC Great Blue Heron Society letter, 7 March 2019
(7 pages)



Image Courtesy Terry Carr

BC GREAT BLUE HERON SOCIETY
PO Box 307
Merville, B.C. V0R 2M0
778-428-5560
bcheronsociety@shaw.ca
fraserwildlifearea.com

March 7, 2019

Dear Council Members:

We commend Campbell River for its Green City Strategy, and ask Council to now introduce measures to protect herons in Campbell River. We would like to thank the organizations, listed in the closing of this letter, who are supporting our concerns, as well as Adele Hollingsworth, who first expressed her concern for the safety of the herons in her Twillingate neighbourhood.

With its population declining, the British Columbia subspecies, Pacific Great Blue Heron (*Ardea herodias fannini*), has been listed as a species of 'Special Concern' by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and granted federal protection under the Species at Risk Act (SARA): as well it has been listed on B.C.'s Blue List of vulnerable species. Widespread tree loss makes it more difficult for herons to find nesting sites close to water, and we urge Council to enact the following measures:

1. The prompt implementation of a comprehensive tree bylaw that prioritizes the retention of mature trees
2. Specific formal protection for heron nest and roosting trees, buffers and feeding areas
3. Comprehensive local research and planning for heron habitat
4. Mandatory protection of sensitive habitats on public and private land
5. Adoption of an accounting model that recognizes the value of natural areas
6. Specific actions for the heron nest on Twillingate Road.

1. The prompt implementation of a comprehensive tree bylaw that prioritizes the retention of mature trees

We understand Campbell River is implementing a tree bylaw, an important part of holistic community planning. The retention of mature trees and the planting of young trees, particularly within wildlife corridors, are a critical economic asset to the City, often increasing property values and providing noise buffers, water and air purification, carbon storage, lower heating and cooling costs, retention of neighbourhood character, biodiversity in streams and other water bodies for critically endangered salmon and other fish and aquatic species, shade for walkers and cyclists, beautification, wildlife habitat and natural hydrological management including flood abatement, maintenance of summer stream flow in creeks and increased groundwater replenishment. For herons, big trees are critical, and tree bylaws must reflect a commitment to comprehensive protection.

“... Local declines in foraging habitat likely have been greatest in south-coastal British Columbia ... the magnitude of use of some foraging locations currently may be limited by the amount of suitable nesting habitat that remains undeveloped. Suitable tall trees as nesting habitat near foraging areas have declined ... Habitat destruction in south-coastal British Columbia has resulted in the abandonment of at least 21 colonies (from 1972 to 1985 and from 1998 to 1999)... predators may be reducing habitat quality by causing herons to move to new, and ever more limited, sites... Bald Eagles might be negatively affecting habitat use by Pacific Great Blue Herons (Butler and Vennesland 2000; Vennesland and Butler 2004)... soon after a landowner felled trees that exposed a colony on Vancouver Island in 2005, eagles began to enter the colony at which time the herons abandoned the site (Vennesland 2006). Eagle attacks on nesting herons have escalated in recent years (Vennesland and Butler 2004) and this increased level of predation stimulated many herons to search for new nesting habitat.”

(https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_great_blue_heron_0808_e.pdf)

A tree bylaw and requirement for protection of sensitive habitats is critical to the Campbell River goal of zero carbon and ecosystem integrity, including the target 35% reduction from 2007 levels in per capita greenhouse gases scheduled for the next 12 – 22 months (2020).

2. Specific formal protection for heron nest and roosting trees, buffers and feeding areas

Although federal and provincial law currently protects specific heron and their nests, declining heron numbers require special consideration in planning including permanent protection for:

- nest trees and their surrounding buffer zones
- mature stands of tree for winter roosting and alternate summer nesting
- feeding grounds in old field, estuarine and other aquatic and riparian habitats.

Specific recognition of habitat also raises public awareness of these federal and provincial laws.

“Living in such close proximity with humans means that habitat loss is the biggest threat facing the great blue heron. Not only do they require good, relatively undisturbed foraging territory, but the herons are picky nesters, and have been known to abandon their eggs if the nesting site is disturbed or becomes too noisy. They require high trees in which to nest, and these trees must be within three kilometers of the prime foraging ground. Once one of those conditions is affected by human activity, the others become useless, compounding the effect of habitat loss and leaving seemingly perfect land unutilized by the birds. Bald eagles are the only major predator to the great blue heron, and will eat their eggs and chicks. The opening up of the canopy cover by humans greatly increases the risk of eagle predation as the nests become easier to spot, and harder to defend. There is also some evidence that as nesting sites become more populated and utilized by humans, the herons are accumulating some toxins, including pesticides in their tissues ...”
(<http://www.geog.uvic.ca/viwilds/iw-heron.html>)

3. Comprehensive research and planning for heron habitat and colonies

“... Breeding herons require foraging areas with an abundance of small fish near forested nesting habitat. Colony locations are dynamic, so in addition to protecting current nesting locations from disturbance, additional forested habitat within 10 km of foraging areas also needs to be available for future nesting. **The mapping and protection of current and alternate nesting habitats, stewardship and education programs (e.g., for landowners of colony locations), research on population dynamics and predator ecology, and restoration of highly impacted environments (e.g., deforested farmlands), will be important to facilitate effective management of populations of the coastal subspecies.**”(Butler R. and R. Vennesland. 2015. Great Blue Heron in Davidson, P.J.A., R.J. Cannings, A.R. Couturier, D. Lepage, and C.M. Di Corrado (eds.). The Atlas of the Breeding Birds of British Columbia, 2008-2012. Bird Studies Canada. Delta, B.C.<http://www.birdatlas.bc.ca/accounts/speciesaccount.jsp?sp=GBHE&lang=en> [21 Feb 2019])

4. Mandatory protection of sensitive habitats on public and private land

We urge Council to implement innovative partnerships to secure and permanently protect sensitive habitat, including wider streamside protection setbacks and mandatory wildlife corridors (so critical to amphibians and reptiles), either through purchase or partnerships, density credits, etc.

5. Adopt an accounting model that recognizes the value of natural areas

Campbell River has committed to carbon neutrality through the Climate Action Charter: climate change (exacerbated by tree loss) is stressing existing infrastructure and creating looming costs for upgrades and maintenance as well as the potential costs of future flood responses. Protecting wildlife habitat lowers infrastructure costs, and we urge Council to adopt the Municipal Natural Assets Initiative now being used by Gibsons, B.C.:

“Gibsons is now treating key ecosystems like aquifers, streams and forests as infrastructure assets ...alongside standard engineered assets... Town staff realized the potential loss of the aquifer was a major financial risk, so they suggested to council that the aquifer and its value to the community be included in the infrastructure plan ... Shortly after it valued the aquifer, Gibsons council was looking at a plan to improve storm water drainage. The engineered plan called for concrete pipes and came with a \$4-million price tag. But town staff thought of an alternative. “...if we just extend the park and create more ponds and plant more trees, we will get the same service that we could get from an engineered asset, and it costs pennies on the dollar,” [Gibson chief administrative officer] Machado says. “In essence, we need less money to manage our town’s storm water.”...the Municipal Natural Assets Initiative (MNAI) ... won an award for Land Use and Conservation from the Real Estate Foundation of BC ... “Natural assets can deliver the same services that local governments would otherwise have to deliver via engineered assets...” said Roy Brooke, MNAI’s executive director.... “There are no capital costs and lower operating costs, and natural assets like a wetland or a forest ... could be more valuable in 75 years, whereas an engineered asset you have to dig it up and replace it.”(<https://thetyee.ca/Presents/2018/10/26/New-Model-Natural-Assets/>)

6. Specific actions for heron rookery on Twillingate Road

Hérons have been nesting in the Twillingate neighbourhood for years and use the trees for roosting and waiting for tide changes, according to residents. If the herons nest on Twillingate Road this year, nesting success may depend on whether construction at the next door lot disturbs the parents and results in abandonment of the site – there were as many as three chicks last year. The area has been rezoned for intensive development but it appears that there was no provision made for the herons or other wildlife in this process, including restrictions on construction during sensitive nesting periods. We urge the City to act immediately to ensure the best possible chance that this heron pair will nest successfully.

The historic presence of herons, a species listed both federally and provincially for conservation concerns, should require a more ecologically sensitive plan for this area, particularly given its proximity to Willow Creek Nature Park, with its wide variety of wildlife including three salmon and two trout species. Tree retention requirements and wildlife corridors should be initiated before any more development applications go through. The pictures below (taken October 2018) show the clearing that can occur without a tree bylaw or restrictions for habitat conservation (this lot is adjacent to the lot on which the heron nest stands).

“Forbes et al. (1985b) concluded that 17 of 27 colony abandonments occurred due to human activity near the colony site, including tree cutting, flooding, vehicle use and researcher activity. Simpson (1984) documented construction work that resulted in adult herons leaving nests and ended with a large loss of nestlings to eagles. Simpson and Kelsall (1978) found that housing construction near to a colony in Sechelt in 1978 resulted in the abandonment of about 73% of nests.”
https://www.sararegistry.gc.ca/virtual_sara/files/cosewic/sr_great_blue_heron_0808e.pdf

“The nests and nest trees of herons are protected year-round, whether or not the nest is currently active (B.C. Wildlife Act, Section 34). Herons and their active nests are also protected under the federal Migratory Birds Convention Act.
‘Molestation of wildlife’ is an offence under the Wildlife Act, and even walking near the nest or loud noises from equipment may be considered ‘molestation’ if this causes the birds to abandon active nests. ...An additional 200 metre ‘no disturbance’ buffer is recommended during the nesting season, especially for colonies not previously accustomed to people and their activities... Time construction carefully. Avoid any new disturbance between January 15 and September 15 when herons are nesting. Early in the season, herons are particularly susceptible to disturbance”
<https://www2.gov.bc.ca/assets/gov/environment/natural-resource-stewardship/best-management-practices/develop-with-care/fact-sheet-11-herons.pdf>

As well as herons, many of the other birds who nest in Campbell River are migratory, and it is a federal offence under the Migratory Birds Convention Act to harm these birds or their eggs or nests: as some birds raise more than one brood, their sensitive nesting periods occur inclusively between the months of March to August (Canadian Wildlife Service).



Twillingate Road lot clearing October 2018



We urge Council to re-examine other areas within the urban containment boundary with a view to a more wildlife-friendly densification process. As well as the joy that birds bring to our lives, they also provide significant insect and rodent control, and bird-watching activities, including migration festivals, sanctuary visits, equipment purchases, etc., are worth billions of dollars and hundreds of thousands of jobs world-wide. The City must strive with innovative planning tools to conserve habitat wherever it

occurs, because cities that are healthy places for wildlife are healthy places for people. Your actions now will safeguard the natural environment of the City for future generations.

Thank you for your attention to our concerns.

Yours very truly,

BC GREAT BLUE HERON SOCIETY



Gillian Anderson

Chair

This letter is endorsed by:

Council of Canadians Campbell River Chapter, Richard Hagensen, Chair

Comox Valley Naturalist Society, Jim Boulter, President

Sierra Quadra, Geraldine Kenny, Chair

c.c.

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- Strathcona Regional District, communications@srd.ca
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- Hon. George Heyman, Minister of Environment and Climate Change Strategy, env.minister@gov.bc.ca
- Hon. Doug Donaldson, Minister of Forests, Lands and Natural Resource Operations, and Rural Development, FLNR.Minister@gov.bc.ca
- Sonia Furstenu, soniafurstenu@gmail.com
- Rachel Blaney, MP North Island-Powell River, rachel.blaney@parl.gc.ca

Attachment 3

Greenways Land Trust letter, 7 March 2019 RE: Heron Tree Protection and Update on
City Arborist and Tree Protection Bylaw
(1 page)



Box 25063 TYEE, Campbell River, BC V9W 0B7
Phone / fax (250) 287-3785
greenways@greenwaystrust.ca
www.greenwaystrust.ca

March 7th, 2019

RE: Heron Tree Protection and Update on City Arborist and Tree Protection Bylaw

To Mayor and Council of the City of Campbell River

I am writing as President of Greenways Land Trust to support the letter submitted to you for the March 11th Council meeting from the Great Blue Heron Society. The Greenways Board agrees with the content and recommendations of this letter. Their letter contains many evidence-based recommendations for actions to support herons, which in turn will provide many other benefits to the residents of and visitors to Campbell River.

This letter from the Great Blue Heron Society emphasizes the need to implement the two actions that City Council has already included for 2019 in the 2019-2028 Financial Plan, namely:

1. Hiring of a full-time arborist
2. Development and implementation of a Tree Protection Bylaw

Timely action on those two items will allow Council to fulfill a number of recommendations in the letter from the Great Blue Heron Society. Additionally, a full-time arborist is essential to implementation of many actions in the Urban Forest Management Plan¹.

We urge City Council to take a step forward toward protecting our environment for the social, environmental and economic benefit of the City of Campbell River.

Sincerely,

Sandra Milligan
President, Greenways Land Trust

¹ *Urban Forest Management Plan for Campbell River Phase 1: Urban Forest Inventory*, May 2015; prepared by Irv Penner, RPF, with City of Campbell River and Greenways Land Trust (hereafter referred to as [UFMP Phase 1](#))

City of Campbell River Urban Forest Management Plan 2015 – 2035, Dec. 2015; prepared by Diamond Head Consulting (hereafter referred to as [UFMP – Action Plan](#))

Attachment 4

Campbell River Environmental Committee letter, 5 April 2019
(1 page)

Campbell River Environmental Committee
CREC, PO Box 20092 STN. A, Campbell River, B.C. V9W 7Z5

April 5, 2019

Dear Mayor and Council,

The Campbell River Environmental Committee (CREC) writes in support of the BC Blue Heron's Society request for City protection of the heron.

CREC requests Council introduce measures to protect herons in Campbell River and to include the protection of herons in the City's tree bylaw.

Although Federal and Provincial law currently protects specific heron and their nests, it appears the senior governments have left the first line of heron defense to local government.

Declining heron numbers require special consideration in planning including permanent protection for: nest trees and their surrounding buffer zones; mature stands of trees for winter roosting and alternate summer nesting; and, feeding grounds in old field, estuarine and other aquatic and riparian habitats.

CREC asks that Council enact the measures requested by the BC Blue Heron Society in a City bylaw to protect the heron and provide a public information campaign alerting people to the conditions required to safeguard heron habitat. And also, that this information be given as part of City's development and variance permits.

Sincerely,

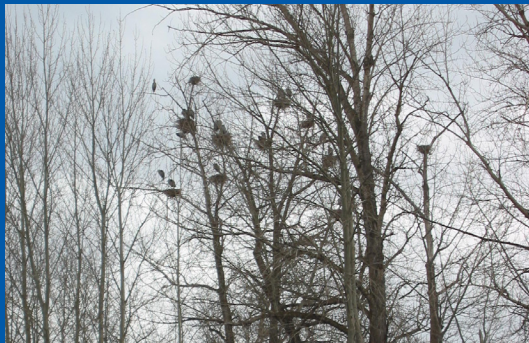
The Campbell River Environmental Committee,

Leona Adams, President

Attachment 5

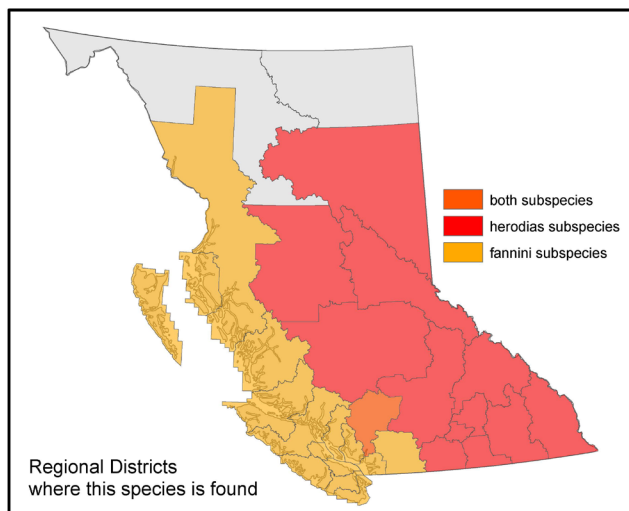
Develop with Care. 2014. Fact Sheet #11. Great Blue Herons. Environmental Guidelines for Urban and Rural Land Development in British Columbia. Province of British Columbia (2 pages)

Environmental Guidelines for Urban and Rural Land Development in British Columbia



Are you planning any development on your property? If your property includes, or is near to, nest trees or feeding grounds of Great Blue Herons, this fact sheet will provide you with important information about complying with the law, protecting these birds and enhancing enjoyment of your property.

Great Blue Herons are found throughout British Columbia, near lakes and coastal areas. They may nest individually, or in heronries (colonies) with tens or sometimes hundreds of birds, and typically return to the same nesting areas year after year. Herons lay 2–5 eggs, usually between February and April, which hatch in about 30 days. The parents share the duties of incubating the eggs and feeding the young. At two months old the young are able to fly and seek food. A heron's diet consists mainly of small fish, but they will also eat shellfish, insects, rodents, amphibians (mostly frogs), reptiles, and small birds. Herons may live to be 17 or more years old.



AT RISK

Great Blue Herons are a [Blue-listed](#) species; considered vulnerable to disturbance by Bald Eagles and humans. Urban and rural development results in the loss of suitable nesting areas and disturbance to birds during their breeding season. Especially during the early stages of nesting, unusual events and loud noises such as mechanical chippers, chainsaws, and large trucks may cause the herons to abandon their nests.

LEGALLY PROTECTED

It is an offence to possess, take, injure, molest, or destroy a bird or its eggs, or the nests of birds when occupied by a bird or egg. The nests and nest trees of herons are protected year-round, whether or not the nest is currently active (B.C. Wildlife Act, [Section 34](#)). Herons and their active nests are also protected under the federal Migratory Birds Convention Act. 'Molestation of wildlife' is an offence under the Wildlife Act, and even walking near the nest or loud noises from equipment may be considered 'molestation' if this causes the birds to abandon active nests. In addition, the Coastal (*fannini*) subspecies is listed under SARA as 'Special Concern', and both subspecies are listed as Identified Wildlife. If you wish to remove or modify heron nest trees, you must obtain a permit from [FrontCounter BC](#) AND check with [Environment Canada](#) to see if a federal permit is required under the Migratory Birds Convention Act regulations.

DEVELOPMENT GUIDELINES

More detailed guidelines for protecting the birds and their environment are provided in *Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia*.

- ☑ Identify and mark out a buffer area around the heronry where there will be no activities (not even recreational trails). Naturally vegetated buffers help to shield the nests and young from human disturbance and predation by Bald Eagles, crows, and ravens. The Province recommends a buffer of at least 300 m in undeveloped areas, 200 m in rural areas, and 60 m in urbanized areas. An additional 200 metre 'no disturbance' buffer is recommended during the nesting season, especially for colonies not previously accustomed to people and their activities.
- ☑ Blasting or similarly excessive noises should not occur closer than 1000 m from a colony during the nesting window.
- ☑ Design and locate developments to avoid disturbing heronries and feeding areas. Talk to the local government about ways to concentrate development in areas with lower environmental values—for example through density bonusing or clustering development.



- ☑ Time construction carefully. Avoid any new disturbance between January 15 and September 15 when herons are nesting. Early in the season, herons are particularly susceptible to disturbance.
- ☑ Protect feeding and perching areas. Avoid draining or filling wetlands or coastal marshes, and maintain shoreline habitats in a natural condition. Protect communal roosting (perching) sites such as jetties, log booms and coniferous trees.
- ☑ Check with your local government to see if they have a Development Permit Area (DPA) or other bylaw that protects nest trees and buffer zones in your area.

For more information:

Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia
<http://www.env.gov.bc.ca/wld/documents/bmp/devwithcare/>

FrontCounter BC (<http://www.frontcounterbc.gov.bc.ca/>) or contact 1-877-855-3222

Environment Canada <http://www.ec.gc.ca/nature/default.asp?lang=En&n=C7564624-1>

Attachment 6

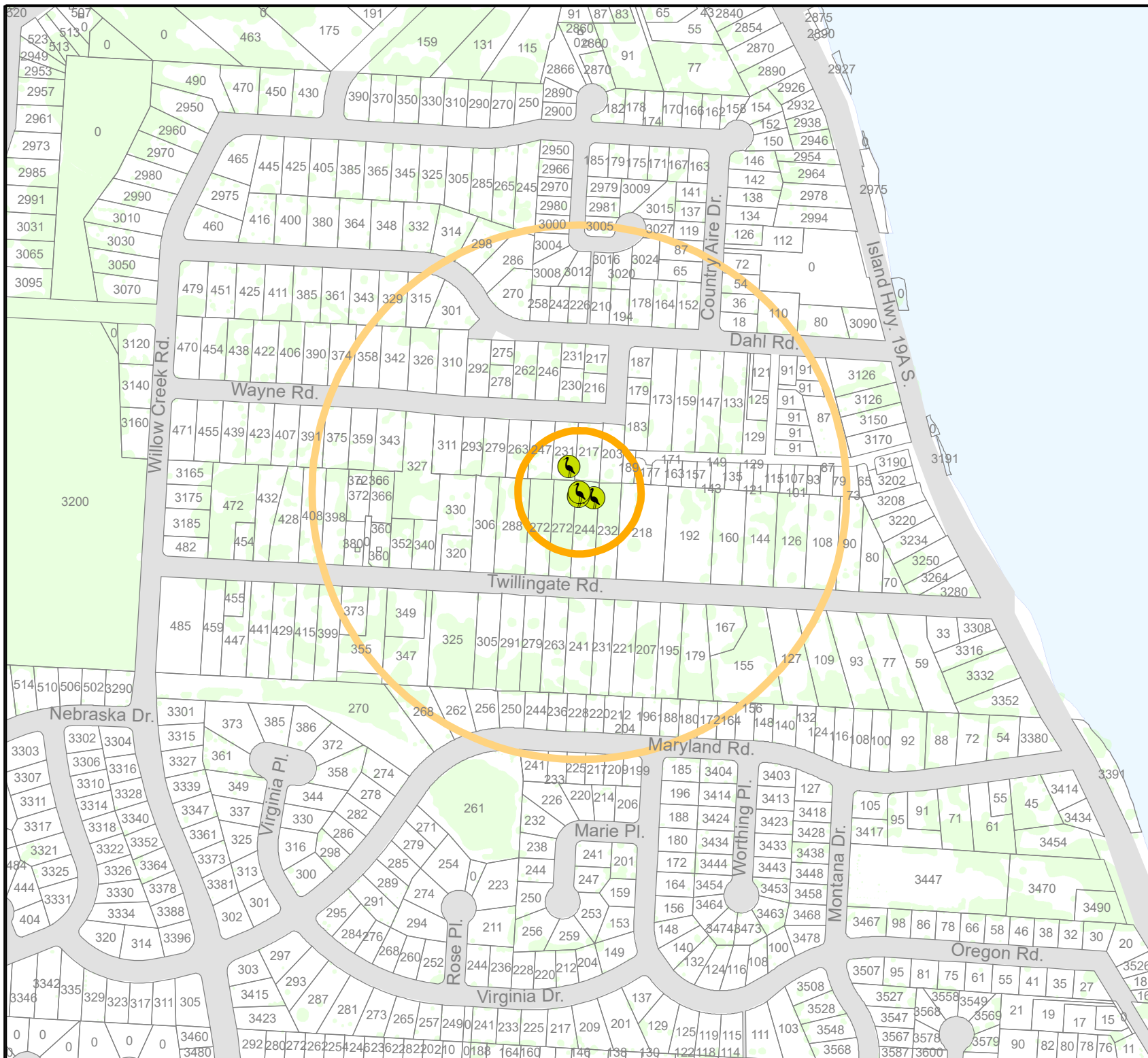
Map showing approximate location of Great Blue Heron nests on Twillingate Road and for illustrative purposes showing 60 metre and 200 metre Development Permit Areas
(1 page)

**Great Blue Heron
Development Permit Areas**


 Great Blue Heron Nest

DPA

 60 m
 200 m



1:5,000

0 15 30 60 90 120 150
 Meters

This map has been produced using data from a variety of sources and may not be complete or accurate. The City of Campbell River is not responsible for any errors or omissions.

Plot Date: Jan 28 2020

REF://...O:\GIS\Engineering\Confidential\mapdocuments\environmental\HeronNests.mxd