

REGIONAL DISTRICT OF NANAIMO

REGIONAL PARKS AND TRAILS SELECT COMMITTEE

TUESDAY, MARCH 6, 2012

12:00 PM

(RDN Committee Room, 6300 Hammond Bay Road, Nanaimo)

A G E N D A

PAGES

CALL TO ORDER

Welcome.

Orientation Binder Review.

DELEGATIONS

Motion to receive delegation.

Motion to receive late delegation.

MINUTES

4-6 Minutes of the regular Regional Parks and Trails Advisory Committee meeting held October 18, 2011.

Motion to approve Minutes.

BUSINESS ARISING FROM THE MINUTES

COMMUNICATIONS/CORRESPONDENCE

7 D. Apps, Trans Canada Trail, Re: Approval Nanaimo Regional Trail.

8 J. Stanhope, RDN, to City of Parksville, Re: Parksville Community Park – Rath Trevor Provincial Park Trail and Bridge Initiative.

- 9 M. Ritzker, Re: Moorecroft Regional Park On Leash Policy.
- 10-11 K. Cramer, RDN, to M. Ritzker, Re: Moorecroft Regional Park On Leash Policy.
- 12-13 T. Osborne, RDN, to Mid Island Sustainability and Stewardship Initiative, Re: RDN Trans Canada Trail Route and Green Space.

Motion to receive Communications/Correspondence.

UNFINISHED BUSINESS

REPORTS

Regional Parks and Trails System Overview. *(presentation)*

Regional Parks and Trails – Proposed DCC Bylaw. *(presentation)*

Regional Parks and Trails – DCC Bylaw Stakeholder Workshops –
South – Tuesday, May 1, 2012, 11:30 – 2:00pm, Coast Bastion Inn, Nanaimo
North – Thursday, May 3, 2012, 11:30 – 2:00pm, Tigh-Na-Mara Resort, Parksville

- 14-20 Monthly Update of Community Parks and Regional Parks and Trails Projects October 2011.
- 21-27 Monthly Update of Community Parks and Regional Parks and Trails Projects November 2011.
- 28-35 Monthly Update of Community Parks and Regional Parks and Trails Projects December 2011 – January 2012.
- 36-70 Coats Marsh Regional Park Structural and Environmental Assessment.

Motion to receive Reports.

BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS

NEW BUSINESS

COMMITTEE INFORMATION (Separate enclosure on blue paper)

ADJOURNMENT

Motion to adjourn.

IN CAMERA

That pursuant to Section 90(1) (e) of the Community Charter the Committee proceed to an In Camera Committee meeting to consider items related to land issues.

NEXT MEETING

Tuesday, June 5, 2012, 12:00pm
RDN Committee Room

Distribution: D. Brennan (Chairperson), J. Stanhope, M. Young, H. Houle, J. Fell, B. Dempsey, M. Lefebvre, D. Willie, T. Osborne, D. Palidwor, K. Cramer

For Information Only: B. Bestwick, J. Kipp, G. Holme, A. McPherson, B. Veenhof, J. Ruttan, D. Johnstone, T. Greves, G. Anderson

REGIONAL DISTRICT OF NANAIMO

**MINUTES OF THE
REGIONAL PARKS AND TRAILS ADVISORY COMMITTEE MEETING
HELD ON TUESDAY, OCTOBER 18, 2011, 12:00PM
IN THE RDN COMMITTEE ROOM**

Attendance: Director Bill Holdom, Chair
Director Joe Stanhope, Deputy Chair
Director Maureen Young
Director Teunis Westbroek
Frank Van Eynde
Craig Young

Staff: Carol Mason, Chief Administrative Officer
Tom Osborne, General Manager of Recreation and Parks
David Palidwor, Acting Manager of Park Services
Kelsey Cramer, Parks Planner
Marilynn Newsted, Recording Secretary

Regrets: Director Dave Bartram
Peter Rothermel

CALL TO ORDER

Deputy Chair Stanhope called the meeting to order at 12:05pm.

Mr. Osborne introduced to the Committee Ms. Kelsey Cramer, the new Regional Parks Planner, who filled Ms. Fesiak's position and Mr. David Palidwor, who will be the Acting Parks Manager for nine months while Ms. Marshall is on parental leave.

MINUTES

MOVED T. Westbroek, SECONDED F. Van Eynde, that the Minutes of the Regional Parks and Trails Advisory Committee meeting held June 21, 2011, be approved.

CARRIED

COMMUNICATIONS/CORRESPONDENCE

MOVED J. Stanhope, SECONDED C. Young, that the following Correspondence be received:

- T. Osborne, RDN, to Guy Mireau and Cheryl Bailey, Re: Coats Marsh Regional Park.
- R. Kemp, Re: Michael Clements Memorial Bench, Moorecroft Regional Park.
- D. Pilling, Staples McDannold Stewart, Re: Coats Marsh Regional Park.
- T. Osborne, RDN, to Robyn Kemp, Re: Memorial Bench, Moorecroft Regional Park.
- M. Noel, Coastal Invasive Plant Committee, Re: Coordinated Invasive Plant Management Nanaimo Region.
- M. Kennah, Island Timberlands, Re: Island Timberlands Road Construction Plan.
- L. Fesiak, RDN, to Federation of Mountain Clubs of BC, Re: Mount Arrowsmith Massif Regional Park Management Plan.

- L. Fesiak, RDN, to Alberni Clayoquot Regional District, Re: Mount Arrowsmith Massif Regional Park Management Plan.
- L. Fesiak, RDN, to Hupacasath First Nation, Re: Mount Arrowsmith Massif Regional Park Management Plan.
- L. Fesiak, RDN, to Island Timberlands, Re: Mount Arrowsmith Massif Regional Park Management Plan.
- B. Kabaluk, Re: Mount Benson Regional Park.

CARRIED

Chair Holdom arrived at the meeting at 12:10pm and assumed the role of Chair.

Mr. Stanhope circulated a small Daphne or Spurge-laurel plant for the Committee's information and awareness of the highly dangerous and invasive plant on Vancouver and Gabriola Islands. He noted the plant is an evergreen and often mistaken for a wild rhododendron, however, is very poisonous and should be carefully removed from gardens/yards and destroyed.

REPORTS

Monthly Update of Community Parks and Regional Parks and Trails Projects

Mr. Osborne briefly reviewed the Community Parks and Regional Parks and Trails Projects for May through to September 2011.

MOVED F. Van Eynde, SECONDED M. Young that the Reports, be received.

CARRIED

Coats Marsh Regional Park Management Plan

Mr. Osborne stated the process to develop a Coats Marsh Regional Park Management Plan began in June 2011, with the consultant first retained to do the plan and later completed by Park staff. Mr. Osborne stated it is a ten year plan, with an estimated cost of \$120,500, as outlined in the *Appendix 1*. He noted a flood mitigation strategy, and the upgrades to the log cabin being the most financially significant items in the Operational Actions for the property.

MOVED F. Van Eynde, SECONDED M. Young, that the Coats Marsh Regional Park Management Plan be approved and used as a guide for park development and operation from 2011 to 2021.

CARRIED

Regional Park Development Cost Charges

Mr. Osborne, with the assistance of Ms. Harriet Rugeberg, with HB Lanarc, reviewed the steps taken to develop the Regional Park Development Cost Charges (DCC's) for Regional Parks and Trails. He reminded the Committee that at the direction of the Board in 2006, staff were directed to investigate the development of DCC's, and as part of the process, HB Lanarc was brought on in 2007, to examine how DCC's could be applied to regional parks and trails.

Mr. Osborne stated meetings were held with the development community and the municipalities for their input and from the information developed a criteria system for regional parks and trails, as well as for potential lands designated for acquisition.

Mr. Osborne noted discussions were held with the Ministry of Sport and Cultural Development to verify which land could or could not be included. Crown land which the Regional District owns or Crown Land managed by the RDN, may be included, however, lease lands through a partnership, such as Nanaimo River Regional Park, Englishman River Regional Park or the ICF Corridor may not be included. Mr. Osborne stated if directed by the Regional Board at a later date, some work will be required to amend the Act to include these types of lands.

Committee members stated their concern about the effect of DDC's on affordable housing and also inquired about the possible use of parkland to help resolve the issue.

Ms. Mason stated the legislation regarding regional parks is very specific and did not believe the regional parks function could be used for affordable housing initiatives. She stated the problem of affordable housing is an emerging issue and suggested it would be an agenda item for a strategic planning session for the new Board.

MOVED T. Westbroek, SECONDED F. Van Eynde, that the "Regional Parks Development Costs Charges Bylaw No. 1619, 2011" be introduced and read two times.

CARRIED

MOVED T. Westbroek, SECONDED J. Stanhope, That staff be directed to develop a consultation plan for 2012 that will solicit stakeholder group feedback and input on the Regional Parks Development Cost Charges Bylaw.

CARRIED

MOVED T. Westbroek, SECONDED F. Van Eynde, that the topic of affordable housing and the use of regionally controlled land for use as affordable housing be referred to the next strategic planning session of the new Board.

CARRIED

Moorecroft Regional Park Open House Announcement

Mr. Osborne invited the Committee members to the first Moorecroft Regional Park Management Plan Open House to be held Saturday, October 22, from 12:00pm to 4:00pm, at Kennedy Hall, at the park. If they were unable to attend, he encouraged them to fill out the online survey on the RDN web site and to encourage their neighbours to do the same.

ADJOURNMENT

MOVED F. Van Eynde, SECONDED T. Westbroek, that the meeting be adjourned at 1:03pm.

IN CAMERA

MOVED T. Westbroek, SECONDED M. Young, that pursuant to Section 90 (1) (e) of the Community Charter the Committee proceed to an In Camera Committee meeting to consider items related to land issues.

Chair



REGIONAL
DISTRICT
OF NANAIMO

November 22, 2011

City of Parksville
Box 1390
Parksville, BC
V9P 2H3

Attention: Mayor Chris Burger

Dear Mayor Burger:

Re: Parksville Community Park – Rathtreavor Provincial Park Trail and Bridge Initiative

As you are aware, the Regional District of Nanaimo (RDN) is developing the Regional Trail System with an objective to link all major community, regional and provincial parks in the region by trail. The RDN has made significant steps over the years to achieve this objective, as proven within the Oceanside area with the completion of the Top Bridge Regional Trail and Bridge Project, which now links Rathtreavor Provincial Park with the City of Parksville's Top Bridge Park and Englishman River Regional Park.

It is now my pleasure to inform the City of Parksville that at the Regional District of Nanaimo Board meeting held on November 22, 2011, the following resolution was approved:

"That staff be directed to work in collaboration with the City of Parksville to identify a route for a potential public trail and bridge that would connect Parksville Community Park with Rathtreavor Provincial Park."

This exciting proposal to link Parksville Community Park with Rathtreavor Provincial Park by trail will be of great benefit to all residents of the region. Once completed, residents and guests will be able to travel to and from two significant parks, the downtown core and the resort areas without having to use a motor vehicle.

The Regional District looks forward to working in partnership on this proposal with the City of Parksville, as we continue our work to improve the quality of life for our residents and make our region an attractive tourist destination.

Sincerely,

Joe Stanhope, Chairperson
Regional District of Nanaimo

6300 Hammond Bay Rd.
Nanaimo, B.C.
V9T 6N2

Ph: (250)390-4111
Toll Free: 1-877-607-4111
Fax: (250)390-4163

RDN Website: www.rdn.bc.ca

cc: C. Mason, RDN Chief Administrative Officer
F. Manson, CAO, City of Parksville
T. Osborne, RDN General Manager of Recreation and Parks Services
M. Pearce, RDN Senior Manager of Corporate Administration

Newsted, Marilyn

From: Osborne, Tom
Sent: Tuesday, November 29, 2011 8:44 AM
To: Cramer, Kelsey; Palidwor, David; Newsted, Marilyn
Subject: FW: Moorcroft Park - Nanoose Bay

Input on the Management Plan and please add to RPTAC Agenda – correspondence.

Tom Osborne
General Manager of Recreation and Parks Services

Regional District of Nanaimo Recreation and Parks Dept.

From: Hewitt, Nicole
Sent: Tuesday, November 29, 2011 8:23 AM
To: Osborne, Tom; Burgoyne, Linda
Subject: FW: Moorcroft Park - Nanoose Bay

Nicole Hewitt
Senior Secretary, Corporate Administration
Regional District of Nanaimo

From: Mady Ritzker [<mailto:mrutzker@gmail.com>]
Sent: Friday, November 25, 2011 1:10 PM
To: Hewitt, Nicole
Subject: Moorcroft Park - Nanoose Bay

Hello,

I would like to formally submit a request that the Parks and Recreation board review the decision to have Moorcroft Park a strictly on-leash area. It is 85 acre area filled with wonderful space for dogs to run and explore, and is a shame that such regulations be placed upon pets and their owners. Some areas (parking, picnic etc) should be on-leash, but it is ridiculous for the district to limit the entirety of the park as on-leash.

Thank you for your time,

Mady Ritzker

11/29/2011

Newsted, Marilyn

From: Palidwor, David
Sent: Tuesday, November 29, 2011 11:31 AM
To: Moorecroft; 'mritzker@gmail.com'
Cc: Osborne, Tom; Newsted, Marilyn
Subject: RE: Moorcroft Park - Nanoose Bay

Thanks Kelsey.
Marilyn – copy for RPTAC

From: Cramer, Kelsey **On Behalf Of** Moorecroft
Sent: Tuesday, November 29, 2011 9:44 AM
To: 'mritzker@gmail.com'
Cc: Palidwor, David; Osborne, Tom
Subject: RE: Moorcroft Park - Nanoose Bay

Hi Mady,

The Regional District is currently preparing a management plan for Moorecroft Regional Park. It started in the late summer of 2011 and is planned to be complete by November 2012. Dogs in the park is one of the topics that will be addressed in the plan. Because we have received a number of calls from people who are frightened when approached by dogs off-leash in Moorecroft Regional Park, we have posted signs requesting people leash their dogs. At the first Open House on the management plan held in October, many people voiced they would like to see the park or a portion of the park allow off-leash use. We received many suggestions including an off-leash dog area in the meadow, or designating specific times when dogs are permitted off-leash. A summary of all the input we received is available on the park website at www.rdn.bc.ca/moorecroft.

Your request for an off-leash area is definitely something we are considering, as well as other suggestions for how to find a balance and provide a safe, comfortable experience for all visitors to the park.

If you like, I will add your email to the list serve for the management plan project so that you will receive updates on the project, including when the next open house will be to review the draft concepts, goals and objectives for the park.

Thank you for your interest in Moorecroft and for sharing your request for off-leash dog access in the park.

Best regards,
Kelsey

Kelsey Cramer
Parks Planner, RDN Recreation and Parks

From: Hewitt, Nicole
Sent: Tuesday, November 29, 2011 8:23 AM
To: Osborne, Tom; Burgoyne, Linda
Subject: FW: Moorcroft Park - Nanoose Bay

11/29/2011

Nicole Hewitt
Senior Secretary, Corporate Administration
Regional District of Nanaimo

From: Mady Ritzker [mailto:mritzker@gmail.com]
Sent: Friday, November 25, 2011 1:10 PM
To: Hewitt, Nicole
Subject: Moorcroft Park - Nanoose Bay

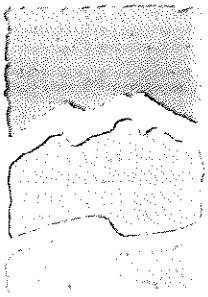
Hello,

I would like to formally submit a request that the Parks and Recreation board review the decision to have Moorcroft Park a strictly on-leash area. It is 85 acre area filled with wonderful space for dogs to run and explore, and is a shame that such regulations be placed upon pets and their owners. Some areas (parking, picnic etc) should be on-leash, but it is ridiculous for the district to limit the entirety of the park as on-leash.

Thank you for your time,

Mady Ritzker

11/29/2011



REGIONAL
DISTRICT
OF NANAIMO

January 31, 2012

Mid Island Sustainability and Stewardship Initiative
Box 333
Cedar, BC
V9X 1W1

Attention: Laurie Gourlay, President

Dear Mr. Gourlay:

Re: RDN Trans Canada Trail Route and Green Space

Thank you for your letter of January 9 past to the Regional District of Nanaimo Board regarding the RDN Trans Canada Trail Route and Green Space. Your submission was addressed by the Board at its regular meeting of January 24, 2012. The Board resolved:

"That the correspondence from Mid Island Sustainability and Stewardship Initiative be received."

At the same meeting, and following the appearance by a delegation from Trails BC/Trans Canada Trail before the Board's Committee of the Whole meeting on January 10, 2012, the Board resolved:

"That staff be directed to report back to the Board on the feasibility of constructing a pedestrian bridge over the Nanaimo River along the dedicated Trans Canada Trail route and work in partnership with Trails BC on this initiative including sourcing potential grant funding through Trans Canada Trail and Parks Canada."

The Trans Canada Trail has invited all participants in this national project to focus on closing remaining gaps in the route in time for 2017, Canada's 150 birthday and the 25 anniversary of the TCT. The last gap in the RDN's section of the national trail is a bridge over the Nanaimo River. Completion of the bridge will link the Town of Ladysmith and Departure Bay in the City of Nanaimo with continuous trail.

The TCT is one of many regional trails under development in the RDN. As identified in the 2005-2015 Regional Parks and Trails Plan, the RDN is examining a variety of regional trail opportunities within Electoral Area 'A'. Completion of the TCT as envisaged by the volunteers who first negotiated the route in the late 1990s and entrusted the project to the RDN in 2000, will not diminish the drive to create and advance regional trail connections within Electoral Area 'A'. For example, completion of another bridge over the Nanaimo River as part of the Morden Colliery Regional Trail continues to be actively pursued as well.

RECREATION AND PARKS DEPARTMENT

HEAD OFFICE:

Oceanside Place
830 West Island Highway
Parksville, BC
V9P 2X4
(250)248-3252
Fax: (250)248-3159
Toll Free: 1-888-828-2069

Ravensong Aquatic Centre
737 Jones Street
Qualicum Beach, BC
V9K 1S4
(250)752-5014
Fax: (250)752-5019

RDN Website: www.rdn.bc.ca

Recent Official Community Plan work in Electoral Area 'A' showed a strong desire for the development of community trails in this electoral area. The RDN will continue to examine and pursue all opportunities to establish a comprehensive trail network at both community and regional levels that serves recreation, active transportation, environmental and tourism development needs of residents and visitors.

We thank you for your contribution to the effort and encourage you to work with RDN Parks staff on realizing our common vision. In this regard, please contact Joan Michel, Parks and Trails Coordinator at jmichel@rdn.bc.ca or 1-888-828-2069.

Sincerely,



Tom Osborne
General Manager of Recreation and Parks

to/mn

cc C. Mason, Chief Administrative Officer
M. Pearse, Senior Manager of Corporate Services
D. Palidwor, Acting Manager of Park Services
A. McPherson, RDN Director Electoral Area 'A'
M. Young, RDN Director Electoral Area 'C'
Regional Parks and Trail Select Committee

Parks Functions Report

TO: Tom Osborne
General Manager of Recreation and Parks

DATE: November 8, 2011

FROM: Dave Palidwor
Manager of Parks Services

FILE:

SUBJECT: Monthly Update of Community Parks and Regional Parks and Trails Projects

For the month of October 2010 staff has been involved with the following projects and issues:

Electoral Area Community Parks

Area A

Park staff met with a representative from the Provincial Fisheries Branch to discuss the Spring 2012 timeline and grant application for community consultation, a concept plan and management strategy for the Ritten Road Boat Launch.

Following receipt of a Ministry of Transportation and Infrastructure (MOTI) permit for Pylades Road, site grading and a concrete pad was constructed in preparation for a concrete toilet enclosure (scheduled for early November).

At Nelson Road staff inspected and cleared the boat launch site of storm debris.

At Cedar Community Centre staff performed a playground inspection, reporting findings to facility managers.

Staffed conducted a playground inspection at Thelma Griffiths Community Park, and removed rotting fruit from three apple trees to deter bear activity.

A park use permit approval letter was issued to North Cedar Improvement District for water line crossing of Cedar Plaza Community Park.

Area B

Staff prepared a report regarding the RDN community park land implications in response to an "early referral" from the Island's Trust of a Gabriola Island density transfer application that proposes to donate 72 hectares (178 acres) of Community Park to the Regional District of Nanaimo. The report was reviewed by the POSAC at their October 13th meeting; the committee's recommendation went to the Board on October 25th.

A concrete pad and new set of bleachers was installed by a group of volunteers at Rollo McClay Community Park. Staff liaised with a contractor preparing cost information for irrigation pond work at the park and a site visit for pruning at both entrances and garbage collection was also carried out.

A new garbage can was placed at Huxley Community Park. Parking lot grading and resurfacing was completed, along with the planned backfill of an electrical conduit trench.

Staff received preliminary engineered drawings for a bank stabilization project at 707 Community Park, and met on site with a contractor and the adjacent landowner.

Cost estimates were sought for improvements to a flight of beach access stairs at Joyce Lockwood Community Park.

Brushing and mowing was completed at Cox Community Park.

Staff liaised with a 4H Club representative to discuss a permit extension at Rollo McClay concession to accommodate fall ball tournament.

East Wellington/Pleasant Valley

A playground inspection and trail maintenance work was completed at Meadow Drive Community Park.

Extension

At Extension Miners Community Park staff cleaned leaf debris from trail and cleaned a signage kiosk.

Area E

Staff prepared a report to seek the Board's approval for the temporary placement and use of a recreational trailer by the Nanoose Bay Lions Club located at the rear of Nanoose Place.

At Brickyard Community Park a large maple tree at the park entrance was removed for safety reasons.

Staff completed a playground inspection and added six cubic yards of playground surfacing material at Nanoose Road Community Park. Trail brushing and clearing was also carried out.

At Prawn Road Community Park staff met with contractor to verify the location of an identification sign installation to be performed by the developer.

At Jack Bagley Community Park staff responded to a hazard tree complaint and recorded the GPS coordinates.

Staff met on site with Fairwinds staff to discuss their proposed memorial bench program.

Area F

Staff developed an outline for the proposed combined planning process for the Little Qualicum River Regional Park Management Plan and the Meadowood Community Park Master plan. The planning process was presented to the community at the Corcan-Meadowood Residents Association's Annual General Meeting on October 22nd. The presentation highlighted how community review and input will be drawn upon and incorporated during every stage of the planning process.

Staff contacted a land owner near the Malcolm Community Park trail to inquire about the feasibility of entering into a trail access agreement. This agreement would formalize the current, unofficial trail that connects the parking lot of Whiskey Creek Store to the official trail that starts at the end of Redman Road.

Trail construction work under a MOTI permit was commenced in the Kopernick/Middegate area, including clearing, grading, surfacing and compaction, and placement of concrete vehicle barriers. Staff inspected the contractor's work and also assisted in machine work and brush removal near the trail.

At Errington Farmer's Market Community Park staff cleaned garbage from the trail.

Staff worked with the Dashwood Fire Chief and issued a park use permit to Corcan-Meadowood Way Residents Association for a Halloween bonfire and fireworks event at Meadowood Park.

Area G

Staff met with a developer regarding an upcoming rezoning/subdivision application which may include park land dedication.

General park cleanup performed at Neden Way Community Park.

Playground inspections were completed at Neden, Maple Lane, Boulton, and Dashwood Community Parks.

At Boulton Community Park four cubic yards of playground surfacing was added to the swing set enclosure.

At Dashwood Community Park staff constructed and installed a community bulletin board at the Women's Institute Hall.

At Hawthorne Rise Community Park staff inspected the trail for fallen debris and assessed potential hazard trees.

Staff investigated water well closure procedures and responsibility at Columbia Drive Community Park.

Staff researched suitable engineering firms for boardwalk redevelopment in San Pareil.

Staff monitored garbage collection and toilet service contracts.

Area H

At an MOTI beach access at Buccaneer Beach Road staff delivered and assembled a new concrete bench and placed three large rocks on site, in response to a vandalism incident.

At Thompson Clarke Drive staff cleaned debris from ditch.

Staff met with the Planner and Community Parks Planner to review Bowser area roads and needs around Henry Morgan Community Park.

Other

Staff developed a list of potential projects for the new \$30 million Provincial Community Recreation Program in preparation for a report to COW.

Staff met with two team members from the Coastal Invasive Plant Committee to plan an invasive plants assessment in Community Parks throughout electoral area E, G and H.

Work programs and schedules for mowing contracts covering fifteen community parks were monitored with the relevant contractors. These run from May to the end of the year.

Numerous park inspection visits and maintenance projects were conducted throughout the district including garbage removal, new sign layouts and installations, and sign maintenance, and numerous information requests were received from the public.

Participated in the second annual Great BC Shake Out event to raise awareness and improve earthquake safety and preparedness.

Staff conducted a (monthly) Work Safe BC facility inspection.

Regional Parks and Trails

Coats Marsh Regional Park

Staff met with Madrone Environmental Services to discuss the draft report pertaining to the Structural and Environmental Assessment of the wetland. Revisions and next steps were discussed and staff is awaiting the final Stage I report prior to moving to Stage II of the project, which will address design and installation of an appropriate flood mitigation measure.

Park staff continued to monitor beaver debris, pond leveler and water level of the marsh.

Assessment work is being undertaken for the caretaker's residence to ensure its stability for the next 5 years.

Continued to work with the lawyer on final preparation of the Caretaker contract.

Descanso Bay Regional Park

Park Staff conducted park inspections.

Englishman River Regional Park

Staff carried out routine inspections of Englishman River Regional Park and Top Bridge Park. Staff responded to maintenance issues identified by the Volunteer Park Warden including; garbage issues, ATV trespass, vandalism, graffiti and suspect hazardous trees.

Park staff removed an unsafe bridge built by public users as it was a public safety hazard.

Park staff locked the top gate on Alsbrooke Road for the winter season.

Met with the Caretaker to review the upper park road where seasonal flooding has been problematic, along with the old footbridge sites at the west end of the Beaver Pond and at the old channel outtake. Caretaker crew to work on shoring up the Coho Trail diversion route by the Beaver Pond. Temporary signage to be erected at both old bridge sites to explain to park users that structures are expected to be replaced in 2012.

Horne Lake Regional Park

Potable water issues at the Campground were reviewed and options discussed for providing safe drinking water. Park staff is working with the RDN Water Services, an electrician and a Hydrological Engineer to set up a new water and power facility which can later be moved to another location as the concept plan moves ahead. Pump was tested and samples were taken for the engineering company to complete the new water design.

Sign inventory was taken for a future signage plan.

The Park Operator's two year contract renewal was fully executed.

Lighthouse Country Regional Trail

Parks staff designed trail-use signage to be installed at both trail heads and at important locations along the length of the trail. The signs are expected to be installed by staff in November.

Park staff conducted inspections to ensure public safety and removed unnecessary temporary hand rails from the trail edge.

Hired contractor to clear 300 m of existing ditch crossing the Lioness Blvd trailhead and 300 m of new ditch dug along Lioness Blvd Trail. Old barbed wire fence removed along Lioness Trail. Work monitored by an Environmental for compliance.

Staff continued to work on kiosk and regular signage for the improved South Loop. Kiosk sign installed into wood frame at the Lioness Blvd trailhead parking lot.

Accommodated SHAW television for a YouTube video on the trail design.

Little Qualicum River Estuary Regional Conservation Area

Park staff repaired boundary fence.

Staff drafted a new covenant and forwarded lease and covenant material to lawyers. Confirmed that both will need to go to the Board for approval (aiming for January Board).

Moorecroft Regional Park

The first Open House for the Moorecroft Regional Park Management Plan occurred on October 22. Staff were occupied with planning and advertising this event, including updating the website, preparing signage, meeting with Shaw for a television interview, and coordinating with consultants. Approximately 100 people attended. The online survey is available until October 31, at which point consultants O2 Planning and Design will summarize and theme the input received from the public and stakeholder interviews.

Staff also met with representatives from the NCC to flag the boundary of the conservation covenant in the park so that it can be accurately surveyed and permanently registered with the Land Title Office.

Staff carried out the following works at Moorecroft Regional Park:

- Completed the garbage can installation by securing the can to the concrete pad.
- Stabilized the memorial bench at Cooks point.
- Old Dory's have been removed from site.
- Removed concrete blocks from around buildings to reduce tripping hazards.
- Removed basketball hoops and back boards as they were not safe for the public.
- Prepped Kennedy Lodge for the Open House.
- Soil restoration project completed.
- Monitoring beaver activity at Skipsey Lake.

Final caretaker agreement executed.

Morden Colliery Trail

Contacted equestrian users seeking RDN assistance with access to Hemer Provincial Park.

Mount Benson Regional Park

Park staff met VIU staff to discuss future woodlot harvesting plans and trail protection at the Witchcraft Lake trails to formalize an approved trail to receive a buffer if harvesting occurs.

GPS mapping for Mount Benson Regional Park carried out to determine which trail should be sanctioned with a buffer.

Benson Creek Falls Regional Park

Park staff poured a concrete pad, installed the four post kiosk, and installed temporary Cougar in area signs.

Nanaimo River Regional Park

Park staff conducted inspections to ensure public safety and removed garbage from site. Staff also extinguished a small fire on the conservation area of the park.

Parksville Qualicum Links

Assisted the Oceanside Cycling Coalition with map work for their public workshop on cycling routes.

Parksville Rath Trevor Links

Park staff met with the City of Parksville regarding a proposed trail and Englishman River bridge link between the Parkville Community Park and Rath Trevor Beach Provincial Park.

Top Bridge Regional Trail

Trail signage installed along Resort Way and Tuan Road.

Other

New Kiosk Design

Staff met with Timbersmith Contracting to review detail drawings for the new 2-post kiosk. The new kiosk replaces the existing 4 and 2-posts kiosks and will typically be installed with signage on both sides.

5-Year Regional Parks Plan

To assist with project planning among all regional parks, staff has created a spreadsheet to track and plan implementation of actions described in Regional Park Management Plans. Projects will be added to this tool for a coordinated approach to project planning across all regional parks. This will be an on-going task requiring updating as projects are accomplished and new ones arise.

Volunteer in Parks – Park Warden Program

Staff reviewed the current status of the park warden program and will plan to organize a meeting in early December to acknowledge volunteers, seek feedback on the program and renew volunteer terms with interested individuals. Currently there are 9 volunteers in 7 RDN parks & trails.

Recreation and Parks staff met with Information Services mapping staff to vet previously collected GPS field data and to prioritize/schedule future collection sites.

Staff worked to follow up on a number of park sites that had been affected by recent falling operations completed at the direction of BC Hydro.

Improvements were made to the operations shop, including items stemming from a health and safety inspection. Safety equipment was organized and a Work Safe BC facility inspection was conducted.

Fire Control

Liaised with Emergency Coordinator regarding Area C Director's efforts to get the Ministry of Forests and Range to install fire signage in troubled arson area west of Nanaimo.

Staff reviewed the Emergency Services' flood and landslide response guidelines.

Partnerships

Met with VIU Recreation and Tourism students who will be conducting observational and questionnaire surveys along four trails (Lighthouse, Top Bridge, Morden Colliery and within Nanaimo River Regional Park). Reviewed questionnaire survey, requested adjustments, and had Survey Monkey survey posted on RDN web site.

Liaised with NALT Nanaimo River Symposium consultants regarding parkland dedications along the river.

Staff liaised with genetic researcher with the Ministry of Forests and Range (also involved in the Arboretum) regarding quaking aspen clumps in west Parksville area; provided land ownership information.

Recommendations

That the Parks Update Report for October 2011 be received as information.

Original copy signed by D. Palidwor

Original copy signed by T. Osborne

Manager of Parks Services

General Manager Concurrence

Parks Functions Report

TO: Tom Osborne
General Manager of Recreation and Parks

DATE: December 8, 2011

FROM: Dave Palidwor
Manager of Parks Services

FILE:

SUBJECT: **Monthly Update of Community Parks and Regional Parks and Trails Projects**

For the month of November 2011 staff has been involved with the following projects and issues:

Electoral Area Community Parks

Area A

Staff completed the development of toilet facilities, including a concrete surround and a garbage can at Pylades Road, under permit from the Ministry of Transportation and Infrastructure (MOTI).

At Nelson Road staff removed large woody debris from boat ramp.

At the Morden Colliery Trail staff inspected the corridor for hazard trees and cleared the trail of branches.

The Regional Board has requested that Parks staff prepare an application to the British Columbia's Community Recreation Program for the construction of the Cedar Skate and Bike Park in Electoral Area 'A' and that the project commence upon confirmation of approved funding from the Community Recreation Program

Staff engaged design consultants Van der Zalm and Associates to provide concept refinement and construction drawing services for the Cedar Skate and Bike Park. The resulting construction documents will be used to support the Regional District's efforts to pursue grant funding to complement the \$139,000 of RDN community park funds that have been set aside for park construction and the \$46,590 in donations collected by the Cedar Skate Park Association.

Staff engaged EBA Consultants to provide a detailed geotechnical engineering report for the proposed site of the Cedar Skate and Bike Park on Cedar Secondary School property. This site data was required as base information for the skate and bike park construction drawings and the results were positive.

Area B

Staff continued to research development options with contractors for irrigation pond work at the Rollo McKay park. Vandalism repair work was also carried out, and new signage was installed in the park.

A cleanup was conducted at Huxley Community Park. Parks and Water Services staff met on site to assess the suitability of a water well for Ministry of Environment groundwater monitoring. Staff also conducted GPS surveying to map site amenities.

Split rail fencing was constructed at Joyce Lockwood Community Park and additional stair reconstruction work was ordered, with completion expected in December.

Staff monitored mowing and garbage collection contracts.

Area C - East Wellington/Pleasant Valley

At Meadow Drive Community Park staff performed a general inspection of the trees and playground equipment.

At Thelma Griffiths Park staff cleaned up leaf debris and performed a general inspection of the trees and playground.

Area C - Extension

At Extension Miners Community Park staff cleared leaf and branch debris from the trail and benches.

Area E

A memorial bench was installed at Brickyard Community Park. Trail improvements have also been conducted in November, and will be completed in December.

New signage was installed at Prawn Road Community Park.

Illegal dumping activity was dealt with at Jack Bagley Community Park.

Area F

Staff received notice from the Corcan Rd – Meadowood Way Residents Association that the permitted Hallowe'en fireworks and community BBQ event at Meadowood Way CP went off very well with about 200 in attendance. The Association aims to make this an annual event at the community park.

Trail construction work under a MOTI permit has been substantially completed in the Kopernick/Middlegate area. This included clearing, grading, surfacing and compaction, and the placement of concrete vehicle barriers. Entry points were specifically laid out to accommodate horses while restricting ATV's. Signage work is still to come this winter. Feedback from trail users has been very positive.

Staff moved forward with the necessary research work to support a Building Permit application for Errington Farmer's Market Community Park. A wooden entrance sign was removed for refinishing.

At Harris Crescent Community Park staff cleaned garbage from the park and removed debris from creek.

Staff performed trail and hazard tree assessment at the Malcolm property.

The Regional Board has requested that Parks staff prepare an application to the British Columbia's Community Recreation Program for the first phase construction of the Meadowood Community Park in Electoral Area 'F' and that the project commence upon confirmation of approved funding from the Community Recreation Program.

Staff engaged design consultants Macdonald Gray to provide concept drawings for Meadowood Community Park. The resulting drawings will be used to support the Regional District's efforts to pursue \$42,500 in provincial grant funding to complement the \$17,500 of RDN community park funds that have been set aside for park construction and the \$5,000 in donations collected by the Corcan-Meadowood Residents Association. If successful in obtaining the grant, the funds will go towards the first phase park construction that will include a playground and sport court.

Area G

Staff monitored garbage collection and toilet service contracts.

At Boulton Community Park staff brush-cut overgrown shrubs and performed a garbage clean up. Staff also coordinated with School District 69 for the removal of an adjacent bus shelter.

Staff performed extensive clearing of overgrown brush along the property line and the trail at Lee Road Community Park.

At Barclay Bridge staff removed snow and cleared the bridge surface of debris.

At Dashwood Community Park and the Women's Institute Hall staff worked with an electrical contractor to complete the installation of three emergency exit signs.

At Admiral Tryon Boulevard beach access staff coordinated with bylaw enforcement for the installation of a 'no dumping' sign following incidents of yard waste being illegally dumped in the park.

Staff visited Miller Road Community Park to examine conditions at the eroding bank and to discuss currently planned-for remediation in 2012.

Staff continued to correspond with a developer regarding an upcoming rezoning/subdivision application which may include park land dedication.

Area H

Planning and operations staff met to discuss conceptual park design plans for Henry Morgan Community Park with design consultant.

At Dunsmuir (Centennial) Community Park staff repaired a damaged toilet enclosure, repainted the structure to cover up graffiti, cleaned up garbage, and repaired the tennis court net.

Staff performed a stair assessment to plan for repair of storm damage at a public beach access on Shoreline Drive.

Staff conducted a drainage assessment for trail and culvert work anticipated for the winter.

The Regional Board has requested that Parks staff prepare an application to the British Columbia's Community Recreation Program for the first phase construction of the Henry Morgan Community Park in Electoral Area 'H' and that the project commence upon confirmation of approved funding from the Community Recreation Program.

Staff engaged design consultants Gemella Designs to provide concept refinement and construction drawing services for Henry Morgan Community Park. The resulting construction documents will be used to support the Regional District's efforts to pursue grant funding to complement the \$75,000 of RDN community park funds that have been set aside for park construction. This work included meeting with the adjacent land owner and MOTI to discuss servicing, timing and potential access easements and Hydro to discuss moving the existing power poles.

Parks staff attended a site meeting with the Area Director, Planning staff, property owners and their builder to discuss the property owners' Ministry of Transportation and Infrastructure application to

purchase an undeveloped portion public road located at the end of Jamieson Rd. Parks staff provided comments related to the importance of maintaining public access to the water.

Other

Work programs and schedules for mowing contracts covering fifteen community parks were monitored with the relevant contractors. These run from May to the end of the year.

Staff participated in a ½ day fall restraint training course, and also attended a department staff meeting to discuss work programs/projects and teamwork.

Numerous park inspection visits and maintenance projects were conducted throughout the district including garbage removal, new sign layouts and installations, and sign maintenance, and numerous information requests were received from the public.

Regional Parks and Trails

Beachcomber Regional Park

Staff updated various signs including directional signage, no mooring signage and a parking hours sign.

Coats Marsh Regional Park

Staff received the final Stage I report regarding the Structural and Environmental Assessment of the wetland from Madrone Environmental Services. Next steps involve obtaining a survey of the area of interest to help inform the most appropriate flood mitigation measure.

Park staff continued to monitor beaver debris, pond leveler and water level of the marsh.

Descanso Bay Regional Park

Regular park inspections were undertaken. Staff Arborist assessed the orchard for pruning needs that will take place in the next couple of months.

Englishman River Regional Park

Liaison work with hatchery caretaker regarding fish returns and egg take activities for the hatchery.

Staff representative attended Englishman River Watershed Recovery Plan Steering Committee meeting where Giles Wendling, presented results from an aquifer study, which revealed an interesting potential deep aquifer under the Park.

Staff representative followed up with the BC Conservation Foundation regarding the condition of their large woody debris installations following the late month high waters and all appear in order so far.

Staff carried out routine inspections of Englishman River Regional Park and Top Bridge Park. Staff responded to maintenance issues identified by the Volunteer Park Warden including garbage issues, ATV trespass, vandalism, graffiti and potential hazardous trees. Damage from illegal ATV use is a significant and expensive problem and staff will continue to harden access points.

Park staff cut and removed two trees that came down on the main access road and Coho Trail from wind storms.

Park staff conducted several inspections to ensure public safety due to frequent fall wind storms.

Lighthouse Country Regional Trail

Staff reviewed outstanding works with bridge contractor.

Park staff conducted several inspections to ensure public safety due to frequent fall wind storms.

Staff installed trail signs and spread straw over exposed soil areas to prevent erosion and the potential of sedimentation.

Little Qualicum River Estuary Regional Conservation Area

Staff reviewed the draft 99-year lease and covenant with Ducks Unlimited and forwarded to lawyer for final review.

Staff representative met with the Mid-Island Guardians of the Estuaries to discuss progress on the Canada goose mitigation plan and plans for 2012.

Staff reviewed grant proposal from the BC Conservation Foundation to the Habitat Conservation Trust Foundation regarding the addition of large woody debris structures at the Little Qualicum and Englishman River estuaries, including the LQRERCA spit.

Assisted the Qualicum Beach Streamkeepers in the planned removal of invasive plants in January.

Little Qualicum River Regional Park

Staff will be starting a management plan public engagement process for Little Qualicum River in the New Year. In preparation for this project, Parks Staff have been coordinating with RDN GIS mapping staff to produce maps for public consultation and communication. A draft stakeholder list has also been prepared. An advisory committee for the project will be determined in December.

Due to strict timelines, RDN Park staff have also been involved in conceptual design work for the adjacent Meadowood Way Community Park, which is included in the Provincial Community Recreation Grant funding.

Moorecroft Regional Park

Staff continue to work with O2 Planning + Design on the Moorecroft Regional Park Management Plan. A summary of the information received at the first open house in October is available on the RDN website. Several direct inquiries from the public regarding dogs in the park have been responded to. The management plan will need to provide clear direction on the leashing of dogs and where appropriate "leash-optional" areas may be.

Additional input was sought by students from the Tourism and Recreation Program at VIU and by the RDN's Recreation Staff to help provide a better understanding for how youth envision the future Moorecroft and what facilities will be required to effectively run programs in the park.

A meeting is scheduled with the Woodlot Operator to the south of Moorecroft to discuss possible opportunities for trail connections and the potential for dogs off-leash on this property. A better understanding of the operator's plans for the woodlot and potential impacts on the park will also be covered.

Staff also met with surveyors from JE Anderson & Associates at the park prior to the surveying the conservation covenant boundary, which will be permanently registered with the Land Title Office.

Staff worked with Zero Waste Coordinator to get residential recycling in place for the park caretaker.

Staff met with neighbouring Strata Board members regarding formalization of a western park access through the Strata site to Moorecroft park. Follow up work is planned for early 2012.

Staff carried out the following works at Moorecroft Regional Park:

- Garbage cleanup.
- Graffiti removal from buildings and signs
- Trails cleared of debris from wind storm
- Installed anti-slip mesh on stairs and decks
- Removed concrete blocks from around buildings to reduce tripping hazards
- Installed additional dog on leash signs
- Winterized the buildings and fire hydrants
- Removed unsafe playground structures
- Installed No shellfish harvesting signs along the beach
- Monitored beaver activity at Skipsey Lake
- Produced a map of water facility locations and flow for Water Services Department

Mount Benson Regional Park

Park staff removed temporary Cougar in Area signs. Park staff also removed trees crossing the access road.

Benson Creek Falls Regional Park

Park staff conducted several inspections to ensure public safety due to frequent fall wind storms.

Nanaimo River Regional Park

Park staff conducted inspections to ensure public safety and removed garbage from site. Staff also extinguished a small fire in the conservation area of the park.

Parksville Qualicum Links

Staff received results of Oceanside Cycling Coalition's workshop and user survey and circulated to all staff. Broad use of the Parksville Qualicum Links was noted and demand for signage along the route.

Parksville Rathtreavor Links

Staff assisted City of Parksville staff with the preparation of a grant application for partial funding of the proposed trail and bridge linkage.

Top Bridge Regional Trail

Parks staff produced a trail map sign to be installed on Resort Way by parks operations staff.

Park staff installed 8 new trail signs along resort way from Rathtreavor to the trailhead on industrial way.

Trans Canada Trail

Staff representative assisted BC TCT representative with request to appear before the RDN Board as a delegation in New Year. TCT provided notice that they have officially recognized the Haslam to Nanaimo River route.

Witchcraft Lake Regional Trail

Provided Ministry of Natural Resource Operations staff with required information to begin the consultation process to formalize RDN trail management.

Other

New Kiosk Design

Staff received the final Engineer-stamped drawings for the new 2-post kiosk from Timbersmith Contracting. The new kiosk replaces the existing 4 and 2-posts kiosks and will typically be installed with signage on both sides.

New Website

The new RDN website is up and the Parks webpage requires updating and clarification in some areas. Parks staff have compiled a list of proposed edits and will work with the webmaster to make the changes in December.

Regional Park DCC Bylaw

A proposed bylaw to implement a Development Cost Charge program for Regional Parks received second reading by the Regional Board. This project has been in the works for the past five years. In the spring of 2012 staff will be meeting with the development community to review and discuss the proposed bylaw before consideration for third reading by the Regional Board later in 2012.

Partnerships

- Met with representative of Nanaimo Mountain Biking Club to discuss potential partnerships in trail development in area west of Nanaimo.
- Worked with the VIU Tourism and Recreation students on their trail survey project.
- Assisted VIU Tourism student with special project on trails.
- Assisted forestry research contractor with work on Quaking Aspens.
- Continued to assist the Mount Arrowsmith Biosphere Foundation folks with minor mapping tasks.

Recommendations

That the Parks Update Report for November 2011 be received as information.

Original signed by D. Palidwor

Manager of Parks Services

Original Signed by T. Osborne

General Manager Concurrence

TO: Tom Osborne
General Manager of Recreation and Parks

DATE: February 7, 2012

FROM: Dave Palidwor
Acting Manager of Parks Services

FILE:

SUBJECT: Monthly Update of Community Parks and Regional Parks and Trails Projects

For the months of December 2011 and January 2012 staff has been involved with the following projects and issues:

Electoral Area Community Parks

Area A

Cedar Skate/Bike Park - Staff worked with the design consultants to complete the detailed drawings as part of a grant application the Provincial Community Recreation Program. The application package included a detailed application form, design drawings, project cost estimates, budget information, letters of support from the community as well as supporting planning documents showing how the project fits into the larger planning context of the Electoral Area and Region. The Province has indicated that the announcement of successful projects will occur after March 2012, at which time further direction regarding the completion of the workings drawings and tender packages will be pursued.

Portable washroom facilities were installed at Pylades Road and contracted collection and servicing is now underway.

Staff participated in the Cedar Main Street Charette hosted by the RDN Planning Department on January 25th – 27th. Parks Staff provided feedback on the community's ideas of how parks, open space and trail connections could become an integral part of the Main Street experience.

At Nelson Road staff removed storm debris from the boat launch ramp, cleared the stairs to the beach and conducted a site clean-up.

Area B

Staff met on site with a development contractor to discuss options for irrigation pond improvements at Rollo McClay.

The Rollo McClay concession building roof and downpipes were repaired following a vandalism incident.

At Joyce Lockwood Community Park stair reconstruction work was completed, including new handrails, pickets, and upright supports.

The Gabriola Recreation Society user agreement is nearing completion for execution to include services at Huxley Park in addition to Rollo McClay Community Park. Staff also worked with GRS recreation programmer on introducing bike polo to Gabriola.

Staff responded to a variety of queries from Mudge Island residents and MoTI about a new launch site and following up on the rearrangement of some water accesses.

East Wellington/Pleasant Valley

Staff conducted maintenance work at Meadow Drive Community Park.

Extension

Staff investigated a resident's concern over a potential tree disease issue in Extension Miners Park affecting their fruit trees. Staff also responded to a drainage concern expressed by an adjacent property owner. This resulted in a follow up meeting with MOTI staff to discuss the impact of water draining from the road onto adjacent lands.

Area E

At Brickyard Community Park trail improvement work is now completed.

A damaged willow tree was removed from the trail access at Park Place Community Park.

Staff followed up with a builder to see the planting of five new trees along a section of the Schooner Ridge Path. The trees are for the replacement of biomass lost during unauthorized pruning on park land by the developer during house construction.

At Nanoose Road Community Park staff cleaned up debris from a recent wind storm event and conducted a hazard tree inspection.

Staff installed expanded metal deck surfacing to the long flight of beach access stairs off the end of Ainsley Place for improved safety.

Area F

Staff worked with ACES representatives to plan upcoming official opening for the ACT 1 trail, trail signage requirements and with information about Area F parks for inclusion in the PQ News.

Meadowood Community Park -Staff worked with the design consultants to complete the detailed drawings for a children's play area and sport court as part of a grant application the Provincial Community Recreation Program. The application package included a detailed application form, design drawings, project cost estimates, budget information, letters of support from the community as well as supporting planning documents showing how the project fits into the larger planning context of the Electoral Area and Region. The Province has indicated that the announcement of successful projects will occur after March 2012.

Park planning staff collaborated on the terms of reference for the design of Meadowood Community Park in conjunction with the management plan process for the Little Qualicum River Regional Park. This process will be launched in Spring 2012.

Area G

In response to feedback received at the Public Information Meeting held on December 14th, Parks Staff met with the applicant, RDN Planning Staff and a representative from The Nature Trust to explore potential parkland dedication alternatives for the 711/713 Mariner Way subdivision application (in San Pareil).

Staff monitored garbage collection and toilet service contracts.

At Barclay Bridge staff removed snow and cleared the bridge surface of debris.

Following a storm event staff conducted a park clean-up at Hawthorne Rise Community Park, and at Lee Road Community Park staff inspected the trail and checked for hazard trees.

Area H

Staff provided Park development recommendations for a proposed trail development through the existing Community Park land corridor between Leon Rd. and Marshall Rd. in the Dunsmuir residential area. These proposed improvements to existing park land may become part of a rezoning proposal on an adjacent parcel.

Staff removed a hazard tree at McColl Road Community Park following a resident inquiry.

At Rose Park staff cleaned the bridge deck and cleared debris from the trail.

Staff posted "Thin Ice" signage at Illusion Lake Community Park.

At Thompson Clarke Trail staff attended to a drainage issue resulting from a fallen tree.

Staff met to discuss development plans at Henry Morgan Community Park.

At Hunts Creek Bridge staff removed snow, ice and leaf debris from the deck.

Due to a vandalism incident a lock was replaced on a garbage can at Sunnybeach Road Park.

Henry Morgan Park - Staff worked with the design consultants to complete the detailed drawings as part of a grant application the Provincial Community Recreation Program. The application package included a detailed application form, design drawings, project cost estimates, budget information, letters of support from the community as well as supporting planning documents showing how the project fits into the larger planning context of the Electoral Area and Region. The Province has indicated that the announcement of successful projects will occur after March 2012, at which time further direction regarding the completion of the workings drawings and tender packages will be pursued. Staff also met with an adjacent land owner to Henry Morgan Community Park to present a preliminary park concept plan and to discuss future park access and parking opportunities.

Other Community Park Projects

Work programs and schedules for mowing contracts covering fifteen community parks were monitored with the relevant contractors. These run from May to the end of the year.

Parks staff assisted with Oceanside Place's Winter Wonderland display.

Three staff members participated in a one day Occupational First Aid course, renewing their required certificates.

Regional Parks and Trails

Beachcomber Regional Park

Discussed an opportunity for interpretive signage with local resident to tell the story of Beachcomber subdivision pioneers initiating the park in the 1970s.

Coats Marsh Regional Park

Staff met with the consultants to discuss the Stage 1 report regarding the flood mitigation approach for Coats Marsh and adjacent residential lot and to discuss the Stage 2 requirements. The consultants have requested a quote from a surveyor to survey the land prior to deciding on the appropriate measure. The survey will take place following permission from the neighbour to survey a portion of his property.

Park staff continued to monitor beaver debris, pond leveler and water level of the marsh.

Descanso Bay Regional Park

Park Staff pruned fruit trees in the orchard.

Englishman River Regional Park

Liaised with Park caretaker regarding potential 2012 development works at park and ATV incursions as well as at City of Parksville's Top Bridge Mountain Bike Park.

Staff carried out routine inspections of Englishman River Regional Park and Top Bridge Park. Staff responded to maintenance issues identified by the Volunteer Park Warden including; garbage issues, ATV trespass, vandalism, graffiti and suspect hazardous trees.

Park staff cut and removed several trees that came down on the main access road and trails.

Park staff installed temporary river level warning signs throughout the park to notify the public about the potential for flash flooding events.

Park staff worked with a contractor creating ATV barriers on the Allsbrook Road side of the Englishman River.

Park staff installed expanded metal surfacing on two bridges to enhance safety.

Final report received from VIU on their fall channel monitoring work carried out for DFO (third field season) as regards water quality and benthic invertebrates. DFO now in a position to see a paper written on the research, which is showing that a large side channel development such as was created at Englishman River Regional Park can add significantly to the natural watershed Coho salmon production.

Horne Lake Regional Park

Park Staff reviewed Engineering drawings for future water and power system improvements and is preparing to tender works in the near future.

Worked with RDN Utilities regarding creation of an emergency response plan for the new HLRP water system.

Park Operator's year-end report received and discussed with the Operator. Obtained detailed occupancy statistics for 2009-2011. Monitoring of campgrounds by RCMP on busy weekends in 2011 noted and applauded.

Worked with Park Operator and staff on a review of the crowded Twin Pines sites, as well as a number of campground practices, e.g., generator run time, dogs off leash. Confirmed that the site count at HLRP is in keeping with current park zoning.

Liaised with Bat Project coordinator regarding re-establishment of monitoring unit where Qualicum River flows into Horne Lake.

Lighthouse Country Regional Trail

Park staff installed new signage and removed old signage along the trail. Staff also repaired the trail after high water events eroded portions of the trail.

Final inspection for works carried out at the Ridgewil Bridge by fabricator and primary contractor.

Little Qualicum River Estuary Regional Conservation Area

Concluded work with Ducks Unlimited and lawyers on a 99-yr lease and revised s.219 covenant for the Conservation Area.

Organized project orientation meeting with the Qualicum Beach Streamkeepers with regards to their assistance with invasive species removal.

Addressed request from BC Conservation Foundation to undertake a preliminary test of the side channel area as part of their overall proposal to bring large woody debris to the Little Qualicum and Englishman estuaries. The large proposal awaits funding news expected in the spring. Reviewed the preliminary test proposal with DUC, consulting biologist and other agencies.

Worked with DUC and the Mid-Island Guardians of the Estuary on their multi-year plan to address Canada Geese at the estuaries and see restoration of native grass fields.

Little Qualicum River Regional Park

Staff drafted a Terms of Reference for the Little Qualicum River Regional Park Management Plan for Board approval in January. Staff continued to coordinate with RDN Mapping Staff to produce maps for public consultation and have been collecting background information on the river and watershed.

Moorecroft Regional Park

Staff and Consultants met with the Advisory Committee to review the preliminary concept plans, vision and management goals prepared for Moorecroft RP. Feedback will be incorporated prior to the

February 11/12 Open House. The concept plans, a second survey and draft vision, goals and objectives will be posted on the website prior to the Open House. Staff is also exploring the opportunity for wireless internet at Moorecroft as part of the consultation process.

Staff provided the Moorecrofters group with copies of the draft management scenarios in order for them to discuss as a group prior to the Open House.

Conducted site visit with neighbouring Strata Board members to examine the feasibility of establishing a statutory right of way in favour of the RDN for the purpose of public trail. The trail would provide an official access to the west side of Moorecroft. Worked with RDN Mapping to GPS potential route.

Parks staff met with GreenMax, the Woodlot Operator to the south of Moorecroft, to discuss possible opportunities for trail connections and the potential for dogs off-leash on this property. The operator is currently working to build a trail network in the woodlot and expects that it will connect directly to the south trail that leads into the regional park. He was accepting of dogs and horses on trails within the woodlot area and has also begun to develop a small parking area for dog walkers and other trail users. GreenMax has a strong sustainability ethic and is active in education and hands-on learning initiatives in Port Alberni. There is the potential to work together if a similar out-door classroom component develops in Moorecroft or on the Woodlot property.

Staff corresponded with biology VIU students looking to conduct a volunteer research project in the park. Options were discussed internally and with the Caretaker, however the students pursued their project with the City of Nanaimo instead.

Clarified legal status of shellfish harvesting with DFO for future signage.

Staff carried out the following works at Moorecroft Regional Park:

- Garbage cleanup.
- A post was installed for mounting thin ice warning sign at Skipsey Lake
- Graffiti has been removed from buildings and signs.
- Cleared trails of branches from wind events.
- Rotten disc golf pads and markers were removed.
- Roofs were demossed and tarps were installed on Mrs. Moore's cabin and the Directors cabin.
- Installed more dogs on leash signs.
- Water services redirected water line to caretakers house.
- Monitoring beaver activity at Skipsey Lake.
- Removed broken picnic table from Vesper point.
- Potholes in the parking lot were repaired with help from RDN Water Services.
- Secured a vandalized cabin by placing plywood of the broken glass window and fixing the lock on the door.
- Inventoried fire extinguishers, smoke detectors oil tanks for repair and removal.
- Cougar in area signs installed and removed after risk level dropped.
- Repaired furnace at Kennedy Hall in preparation for the next Open House.

Morden Colliery Trail

Liaised with Friends of the Morden Mine Society regarding regional trail plans staff make a presentation at their February Board meeting.

Liaised with local equestrians regarding potential funding programs through Horse Council BC, and provided update on plan to conclude an agreement with BC Parks for the continuation of the Trail through Hemer and in this way, formal inclusion of horses in that provincial park.

Staff repaired the fence and bench at the end of the due to bank erosion from high water events. The fence and bench were moved away from the Nanaimo River bank edge for safety. Staff installed expanded metal surfacing on the two Thatcher Creek bridges for traction. Staff also removed two fallen trees across the trail from a recent wind event.

Park staff cleared debris and garbage from Hemer Park to Cedar Road.

Mount Benson Regional Park

Park staff installed ATV bylaw signs. Staff also installed expanded metal surfacing on the Witchcraft boardwalk to enhance safety.

Benson Creek Falls Regional Park

Park staff conducted several inspections to ensure public safety due to frequent fall wind storms. Staff installed expanded metal on the four bridges in the park to enhance safety.

Nanaimo River Regional Park

Staff is monitoring stream bank erosion on the Nanaimo River. Plans to install a fence to deter the public from getting too close to the eroding bank will be constructed in February.

Staff installed expanded metal surfacing on stairs for traction purposes.

Parksville Qualicum Links

Organized cycling working group meeting to present park dedication and subdivision process with focus on the new developments in Area G adjacent to Parksville.

Parksville Rath Trevor Links

Preliminary discussions have taken place with the City of Parksville and other potential partners to scope out the potential trail routing and new bridge locations.

Trans Canada Trail

Briefed new Vancouver Island TCT/Trails BC representatives on RDN regional trail plans and responded to a community proposal for TCT routing and funding applications.

Advised Island Timberlands of RDN Board resolution to advance with preliminary studies in support of a Nanaimo River crossing as part of the TCT, and desire to meet to review specifics.

Other

New Website

Staff continue to correspond with the webmaster to edit components of the parks website content.

Fire Control

Staff examined opportunities for Errington Fire Base staff to practice cutting, burning and fuel abatement work on Crown lands and in RDN parks.

Partnerships

Staff worked with The Nature Trust and Recreation Programmer on Brant Festival promotion and planning. Provided maps and information on places to take a dog while the Oceanside beaches are closed to dogs during the Brant migration

Recommendation

That the Parks Update Report for December 2011 and January 2012 be received as information.

Original signed by D. Palidwor

Original signed by T. Osborne

Acting Manager of Parks Services

General Manager Concurrence



STAGE 1 – STRUCTURAL AND ENVIRONMENTAL ASSESSMENT – COATS MARSH REGIONAL PARK

for:

**Kelsey Cramer and David Palidwor
Regional District of Nanaimo
6300 Hammond Bay Road, Nanaimo, BC, V9T 6N2**

by:

**Trystan Willmott, B.Sc., A.Sc.T.
Bruce Grayson, P.Eng.
MADRONE ENVIRONMENTAL SERVICES LTD.
1081 Canada Avenue, Duncan, BC, V9L 1V2**

January 20, 2012

Dossier 11.0188

TABLE OF CONTENTS

1.0 INTRODUCTION	1
1.1 Scope and Objectives	2
2.0 SITE DESCRIPTION	2
2.1 Location.....	2
2.2 Topography	2
2.3 Pond Outlet (Weir and Leveler).....	2
3.0 BIOLOGICAL ASSESSMENT	3
3.1 Pre-field Research.....	3
3.2 Species Status Ranking Systems	3
3.2.1 Provincial Ranking System	3
3.2.2 Federal Ranking System.....	4
3.3 Sensitive Ecosystem Inventory (Environmentally Sensitive Areas)	5
3.4 Field Assessment.....	7
4.0 RESULTS	7
4.1 General Habitat Description	7
4.2 Sensitive Ecosystems.....	9
4.3 Wildlife Suitability.....	9
4.4 Wildlife Species and Wildlife Sign Detected	11
4.5 Fish Habitat Potential	12
4.6 Engineering Assessment Results.....	13
5.0 DISCUSSION.....	14
5.1 Environmental Assessment	14
5.1.1 Ecosystem Attributes.....	14
5.1.2 Flood Mitigation.....	15
5.2 Engineering Assessment.....	17
5.2.1 Hydrology	17
6.0 PRELIMINARY COST ESTIMATES.....	18
7.0 REFERENCES.....	21
APPENDIX 1 - SITE PHOTOS	23
APPENDIX 2 - FOCAL SPECIES ACCOUNTS.....	29

Stage 1 – Structural and Environmental Assessment – Coats Marsh Regional Park



1.0 INTRODUCTION

This report presents the results of the first stage of a structural and ecological assessment at Coats Marsh, Gabriola Island, B.C.

The report was prepared for the Regional District of Nanaimo (RDN) in accordance with our proposal (ref. P.110042, dated July 7, 2011 and in contract dated July 18, 2011).

The purpose of this work was to develop a flood mitigation strategy for the wetland at this site, as a neighbour has complained of flooding on his property at 1040 Coats Drive, Gabriola Island.

This work comprised background research, field assessment (biological and engineering), preparation of focal plant and wildlife habit suitability assessment, and engineering consideration of potential biological impacts with respect to lowering the water level in the marsh and/or construction of a berm.

The RDN supplied an annotated Orthographic Photograph, and a copy of a report prepared by others titled "Ecological Features and Management Recommendations for Coats Marsh Regional Park – Gabriola Island".

The results of this assessment are included herein, together with notes relating to design and construction practice, and recommendations for further work.

1.1 Scope and Objectives

The main objective of the ecological assessment was to focus on the ecological value of the Coats Marsh ecosystem. Specific values of the wetland were determined in order to allow the determination of the most appropriate procedures to follow regarding the control of flooding associated with private property (1040 Coats Drive). If required, options would either involve the installation of a flood control structure (berm), raising the height of the area that floods (e.g. using fill), installing a higher-capacity flow control device (pond leveler) or decreasing the water level in the wetland. The assessment was focused on the values of the wetland and the immediate forested fringe.

The engineering aspects of the project included an assessment of the condition of the existing weir, its stability, leakage, and rehabilitation options.

Hydrological and hydraulic aspects were not included in the scope of this work. No subsurface investigation was carried out for this stage of the assessment.

2.0 SITE DESCRIPTION

2.1 Location

The site is located in Coats Marsh Regional Park, Gabriola Island. The coordinates at the weir are approximately 45.1525N, -123.8156E. 1040 Coats Drive is a neighbouring property to the west of the site.

2.2 Topography

The marsh is at approximately 100 m elevation. It occupies an elongated ovate depression approximately 475 m long in the east-west direction and with a maximum width of about 200 m in the north-south direction.

2.3 Pond Outlet (Weir and Leveler)

The weir is constructed of concrete, approximately 0.6 m thick, 6 m wide, and 2.7 m high (on the downstream side). It has a baffle about 0.6 m wide located approximately 0.6 m below the crest. The outfall of a 200 mm diameter pond leveler is located over the baffle. The pond leveler was noted, at the time of the site visit, to be rising at 3° from its inlet.

The abutments of the weir were noted to be on medium strength sandstone. Some seepage was observed at the abutment. The weir has some seepage through what appear to be cold joints (where a concrete pour had hardened before the subsequent pour was placed). This is a structural defect in the weir.

3.0 BIOLOGICAL ASSESSMENT

The biological assessment focused on the identification of habitat attributes suited to wildlife species that are listed under the *Species at Risk Act* (SARA), or that are provincially or federally listed as endangered, threatened, or of special concern.

3.1 Pre-field Research

Prior to the field visit, a list of potential federal Species at Risk (SAR) and provincially red-listed and blue-listed wildlife species was determined by querying the British Columbia Conservation Data Centre (BC CDC, 2011). The CDC is a branch of the B.C. Ministry of Environment (MoE). The focal list, specific to the study area, was compiled based on known distributions and habitat requirements of individual species.

To help determine potential fish distribution and connectivity with known fish habitat for the wetland ecosystem, the Habitat Wizard website (http://webmaps.gov.bc.ca/imfs/imf.jsp?site=moe_habwiz) was accessed. Specific fish observation points for the study area and connected water-bodies were queried using the Fisheries Information Summary System (FISS) (<http://a100.gov.bc.ca/pub/fidq/fishDistributionsQuery.do>).

3.2 Species Status Ranking Systems

3.2.1 Provincial Ranking System

Within B.C., the CDC is responsible for assigning provincial status of indigenous species. The coding is by colour, with red indicating species at greatest risk (threatened and endangered species), and yellow indicating the lowest level of risk (Table 1).

Table 1. Provincial Ranking System and Definitions

Rank	Description
Yellow List	Indigenous species and subspecies deemed not to currently be at risk in B.C.
Blue List	Indigenous species and subspecies of special concern in B.C.
Red List	Indigenous species and subspecies that are extirpated, endangered, or threatened in B.C. These species either have, or are candidates for, official extirpated, endangered, or threatened status in B.C.

Four provincially red-listed wildlife species with the **potential** to occur in the area included: Western Painted Turtle (*Chrysemys picta*), Northern Goshawk *laingi* subspecies (*Accipiter gentilis laingi*), Keen's Long-eared Myotis (*Myotis keenii*) and American Water Shrew, *brooksi* subspecies (*Sorex palustris brooksi*).

Blue-listed wildlife species that were selected as focal species and that have the potential to occur on site included: Band-tailed Pigeon (*Columba fasciata*), Northern Pygmy-owl (*Glaucidium gnoma swarthi*), Western Screech-owl *kennicottii* subspecies (*Megascops kennicottii kennicottii*), Great Blue Heron, *fannini* subspecies (*Ardea herodias fannini*), American Bittern (*Botaurus lentiginosus*), Green Heron (*Butorides virescens*), Barn Swallow (*Hirundo rustica*), Olive-sided Flycatcher (*Contopus cooperi*), Townsend's Big-eared Bat (*Corynorhinus townsendii*), Western Toad (*Anaxyrus boreas*) and Northern Red-legged Frog (*Rana aurora*). The site was also assessed to determine if there was suitable habitat for the Bald Eagle (*Haliaeetus leucocephalus*), due to the high public profile of this species.

3.2.2 Federal Ranking System

The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses the status of wild species in Canada. The application of ranking criteria by COSEWIC describes the relative condition of a particular species and gives some indication as to the likelihood of extinction. For example, a species that is “**Endangered**” faces imminent extirpation or extinction; a species that is “**Threatened**” is likely to become endangered if limiting factors are not reversed (Table 2).

Of the focal species listed above, the Western Painted Turtle is considered Endangered, where-as the Northern Goshawk (*laingi* subspecies), Barn Swallow and Olive-sided Flycatcher are listed as threatened by COSEWIC.

Table 2. Federal Species at Risk and Ranking Definitions

Rank	Description
X – Extinct	Species no longer exists.
XT - Extirpated	Species no longer exists in Canada, but it still occurs elsewhere.
E - Endangered	Species is facing imminent extirpation or extinction.
T - Threatened	Species is likely to become endangered if limiting factors are not reversed
SC - Special Concern	Species that are sensitive to human activities and natural events, but are not considered Endangered or Threatened.
DD - Data Deficient	Species with inadequate information to make direct or indirect assessment.
NAR - Not at Risk	Species that have been evaluated, but are considered not at risk.

Table 3 summarizes the provincial and federal ranking status for each of the focal species identified for the study area.

Table 3. Focal Species Ranking Summary

Species	Provincial Rank	Federal Rank
Northern Goshawk <i>laingi</i> subspecies	Red	Threatened
Keen's Long-eared Myotis	Red	Data Deficient
American Water Shrew	Red	N/A
Western Painted Turtle (Pacific Coast Population)	Red	Endangered
Olive-Sided Flycatcher	Blue	Threatened
American Bittern	Blue	N/A
Green Heron	Blue	N/A
Band-tailed Pigeon	Blue	Special Concern
Northern Pygmy-owl	Blue	N/A
Western Screech-owl <i>kennicottii</i> subspecies	Blue	Special Concern
Great Blue Heron	Blue	Special Concern
Barn Swallow	Blue	Threatened
Townsend's Big-eared Bat	Blue	N/A
Red-legged Frog	Blue	Special Concern
Western Toad	Blue	Special Concern
Bald Eagle	Yellow	Not at Risk

3.3 Sensitive Ecosystem Inventory (Environmentally Sensitive Areas)

In 1997, the Sensitive Ecosystem Inventory (SEI) was completed for the East Coast of Vancouver Island (including the southern Gulf Islands) by a Technical Advisory Group. The group consisted of representatives from Environment

Canada (EC), the Canadian Wildlife Service (CWS), the Ministry of Environment (MoE), the Ministry of Sustainable Resource Management (MSRM), and the Conservation Data Centre (CDC) (Ward *et al.*, 1998).

“An ecosystem is defined as a portion of landscape with relatively uniform dominant vegetation; a sensitive ecosystem is one that is fragile and/or rare” (CDC, 2011). Sensitive ecosystems are particularly valuable in that they provide critical habitat for species at risk, they contain a high level of biodiversity, and also form wildlife corridors and linkages.

The main objectives of the SEI mapping were to identify remnants of rare and fragile terrestrial ecosystems, and encourage appropriate management techniques that take into account the fragility of the specific ecosystems. The East Coast of Vancouver Island and the southern Gulf Islands are of particular significance when considering the threats to sensitive ecosystems, due to development pressures associated with a growing population.

The SEI recognizes seven specific sensitive ecosystems, which are:

- Wetlands
- Riparian areas
- Old forest
- Woodland
- Terrestrial herbaceous
- Coastal bluff
- Sparsely Vegetated

Two additional modified sensitive ecosystem types are also included: seasonally flooded agricultural fields and older second growth forest. The results of the SEI mapping showed that the land base of East Vancouver Island and the Gulf Islands contained only 7.9% sensitive ecosystems and 11.6% other important ecosystems (Ward *et al.*, 1998).

For this report, the SEI map resource was used to identify the occurrence of any known sensitive ecosystems in the Coats Marsh assessment area.

3.4 Field Assessment

The habitat assessment, carried out concurrently with the structural assessment of the concrete outlet weir, was completed using a numerical rating of 1 to 6 (with 1 indicating habitat of very high suitability and 6 of nil suitability), as per RISC, 1999. Only current habitat suitability was assessed for the focal species listed in Table 3.

The ecological assessment was focused in and around the main area of interest at the concrete weir outlet location. Habitat conditions were assessed for the focal species and general observations were made of evidence of wildlife use. The wetland was also accessed via the main park entrance at the end of Aiden Road in order to provide a wider overview of the habitat conditions and species using the study area. The assessment was based on the suitability of the wetland ecosystem and the immediate forested fringe to provide habitat attributes for focal wildlife species. Representative site photos were taken during the field assessment (Appendix 1).

4.0 RESULTS

4.1 General Habitat Description

The study area is located in the Coastal Douglas-Fir moist maritime (CDFmm) Biogeoclimatic Zone. Warm, dry summers and mild, wet winters characterize the CDFmm as it lies in the rainshadow of Vancouver Island and the Olympic Mountains. The CDFmm is restricted to low elevations that range from sea level to approximately 150 m.

Overall, only a small proportion of the land mass of BC lies within the CDFmm; however, these are the most densely populated areas of the province. Conditions are such that residential, agricultural, commercial and industrial developers are attracted to the region. The ecosystem and climatic conditions that characterize the CDFmm extend from southeast Vancouver Island and continue south through Puget Sound.

The extent and condition of naturally-occurring ecosystems and wildlife have been directly impacted by anthropogenic disturbances such as logging, agriculture, invasive species, land alienation, resource extraction, altered drainage patterns, urban sprawl, and fire suppression. Numerous ecosystems in the

CDFmm are provincially red-listed, due to the historical land use pressures that have resulted in the loss of these sites.

The wetland ecosystem that is the focus of the assessment is classified as a “marsh”, although significant open-water portions also exist within the wetland boundaries. The wetland margins are generally vegetated with a dense coverage of sedges (*Carex* sp.), which transitions into dense hardhack (*Spiraea douglasii*). Reed canary grass (*Phalaris arundinacea*), an introduced species, is also common along the margins of the wetland.

The wetland has expanded in recent years, as indicated by the presence of a fringe of dead coniferous trees adapted to drier growing conditions (e.g. Douglas-fir – *Pseudotsuga menziesii*). In addition, review of orthophotos over the recent past indicates the expansion of the open water portion of the wetland ecosystem. A mature forested ecosystem surrounds the majority of the wetland, consisting mainly of Douglas-fir and western redcedar (*Thuja plicata*). Red alder (*Alnus rubra*) also occurs along the edges of the wetland.

The recent expansion of the wetland is likely the cause of the action of beavers (*Castor canadensis*) at the main outlet drainage, with an active beaver dam apparently decreasing the effectiveness of both the pond leveler and the outlet weir. New dam-construction material was evident at the outlet during the assessment, and piles of material had been recently cleared from the outlet as a result of general maintenance carried out by the Regional District of Nanaimo.

Beavers generally move into wetland areas and alter the ecosystem to suit their life requisites through the construction of dams, which back up water and increase the cover and depth of standing water. Beavers will remain active in a wetland until food sources (mainly deciduous shrubs and trees) are depleted. When food sources decrease, beavers typically move into new habitat and, as a result, the dam would fall into a state of disrepair. At such point, the wetland would drain and infill naturally, and early successional-stage deciduous shrub vegetation would become established.

Once a deciduous food source becomes established, the cycle would naturally repeat again, with the potential for beavers to move back in, create a dam and flood the area. This natural cycle has likely been interrupted by anthropogenic influences, and the current population of beavers is depressed in comparison to historical numbers.

In the case of Coats Marsh, the outlet weir is intended to be a permanent control structure in comparison to the more natural cycle of beaver dams. The beaver dam is presently restricting the outflow upstream of the weir, resulting in higher water levels in the wetland than were previously experienced. The intention of the pond leveler installation was to maintain the level of the pond to be no higher than the inlet of the pond leveler. This is dependent on the hydraulic capacity of the leveler being at least equal to the inflow. During such times that the inflow is greater than the capacity (*i.e.*, the pond leveler will be flowing full), the pond water level may be expected to rise.

4.2 Sensitive Ecosystems

The original SEI, which was completed in 1998, identifies the Coats Marsh ecosystem as a “Seasonally Flooded Agricultural Field” (SEI code T1225A). More detailed inventories, as identified in Moul and Micksch (2010), identified the ecosystem as consisting of a mix of cattail marsh and shallow open water wetland (SEI polygon number 50287). The forest surrounding the majority of the marsh is listed as a forested swamp sensitive ecosystem (SEI polygon number 50295), as per Moul and Micksch (2010).

4.3 Wildlife Suitability

We assessed the habitat suitability on the subject property for four red-listed, eleven blue-listed and one yellow-listed high profile wildlife species. Table 4 summarizes habitat values for the focal wildlife species assessed within the study area. Refer to Appendix 2 for summary species accounts.

Table 4. Summary of Current Wildlife Habitat Values in Wetland and Immediate Forested Fringe

Species	Habitat Suitability Rating (RISC, 1999)	Likelihood of Occurrence on Site
Red Listed		
Northern Goshawk	4	Low
Keen's Long-eared Myotis	2	Low
Western Painted Turtle – Pacific Coast Population	2	Low
American Water Shrew, <i>brooksi</i> subspecies	3	Low
Blue Listed		
Olive-sided Flycatcher	1	High (confirmed)
Barn Swallow	2	High (confirmed)
Western Screech Owl	2	Moderate
Northern Pygmy Owl	2	Moderate

Table 4. Summary of Current Wildlife Habitat Values in Wetland and Immediate Forested Fringe (continued).

Species	Habitat Suitability Rating (RISC, 1999)	Likelihood of Occurrence on Site
Blue Listed (continued)		
American Bittern	2	Low
Green heron	2	Low
Great Blue Heron (subspecies <i>fannini</i>)	1	High
Band-Tailed Pigeon	2	Moderate
Townsend's Big Eared Bat	2	Moderate
Red Legged Frog	1	High (confirmed)
Western Toad	1	Moderate
Yellow-Listed		
Bald Eagle	2	High (confirmed)

(1 indicates habitat of very high suitability, where-as 6 would indicate nil suitability), as per RISC, 1999.

The wetland currently represents an important habitat niche for a variety of wildlife species that also supports a unique assemblage of hydrophytic plants. The interface between the wetland and the forested fringe creates functional edge habitat, which is a significant habitat feature. Numerous emergent Douglas-fir trees in the forested fringe provide both nesting and perching habitat for large raptors, such as Bald Eagles. Raptors will perch around the edges of wetland habitats while surveying the open wetland for prey. A Bald Eagle was displaying this behaviour during the field assessment.

The wetland/forest interface will also provide roosting opportunities for bats (including Townsend's Big-eared Bat – a focal species) close to an insect-rich foraging area represented by the wetland. Due to current distribution patterns, it is unlikely that the Keen's Long-Eared Myotis (focal bat species) occurs on site.

Potential nesting habitat also exists for cavity-nesting owls (e.g. Western Screech and Northern Pygmy – both focal species) in the forested border and also in the fringe of snags created from the recent expansion of the wetland into drier forested areas. Foraging potential for these owl species also exists over the wetland.

The snags around the edge of the wetland will also provide roosting habitat for bats and also nesting habitat for a range of bird species. Numerous insectivorous birds were observed feeding over the wetland during the assessment, including Barn Swallows, (focal species) indicating the importance of the habitat as a

foraging area for birds. Olive-sided Flycatchers (focal species) were also heard in close proximity to the wetland in the forested fringe. Nesting and foraging habitat conditions are also suitable for the Band-tailed Pigeon (focal species).

The study area provides confirmed habitat for Red-Legged Frogs (a focal species). The wetland provides breeding habitat, with numerous egg-mass attachment media in the form of emergent vegetation and woody debris throughout. The surrounding forest provides forage/security habitat for dispersing adult Red-legged Frogs. Habitat conditions in the wetland are also suited to Western Toads, although their presence was not noted during the field assessment.

Regarding habitat conditions for the remaining focal species, habitat attributes are suited to both Green Herons and American Bitterns, although based on current distribution, the likelihood of these birds occurring on site is low. Suitable foraging habitat exists throughout the wetland for the Great Blue Heron. Habitat conditions are also suited to the Painted Turtle, but due to an extremely low population density and limited distribution throughout their range, it is unlikely that this species occurs in the study area. Habitat also exists for the American Water Shrew, but current distribution indicates that this species is unlikely to occur.

Despite the low likelihood of occurrence for some of the focal species, the suitability of the habitat dictates that their current or future presence on site cannot be ruled out unless detailed surveys are carried out. Due to the fact that Northern Goshawks generally require unbroken tracts of forest in order to fulfill their life requisites, habitat attributes are generally unsuitable for this species in the assessment area.

4.4 Wildlife Species and Wildlife Sign Detected

Perhaps the most significant observation was that of numerous Red-legged Frogs in the outlet drainage immediately downstream of the concrete weir. This species was commonly encountered in the moist, shaded habitat consistent with the outlet drainage.

Amphibian larvae were also observed in the outlet drainage, although species could not be confirmed. Due to the size and shape, the larvae were likely Pacific Chorus Frog (*Pseudacris regilla*) tadpoles. Two other blue listed species were also

confirmed to be using the marsh habitat and surrounding forested fringe during the assessment: the Barn Swallow and Olive-Sided Flycatcher.

All wildlife sign and encounters observed during the field visit were documented. Refer to Table 5 for the species confirmed to be using the study area at the time of the assessment.

Table 5. Wildlife species detected during the Ecological Assessment

Birds	Observation Type
American Robin (<i>Turdus migratorius</i>)	Visual and audio
Bald Eagle	Visual
Barn Swallow	Visual
Canada Goose (<i>Branta canadensis</i>)	Audio
Cedar waxwing (<i>Bombycilla cedrorum</i>)	Visual
Chestnut-backed Chickadee (<i>Poecile rufescens</i>)	Audio
Golden Crowned Kinglet (<i>Regulus satrapa</i>)	Audio
Mallard (<i>Anas platyrhynchos</i>)	Visual and Audio
Marsh Wren (<i>Cistothorus palustris</i>)	Audio
Northern Flicker (<i>Colaptes auratus</i>)	Audio
Olive-sided Flycatcher	Audio
Pacific-slope Flycatcher (<i>Empidonax difficilis</i>)	Audio
Pileated Woodpecker (<i>Dryocopus pileatus</i>)	Feeding sign in snag
Spotted Towhee (<i>Pipilo maculatus</i>)	Visual and audio
Turkey Vulture (<i>Cathartes aura</i>)	Visual
Mammals	Observation Type
Beaver (<i>Castor canadensis</i>)	Dam observed
Columbian Black-tailed Deer (<i>Odocoileus hemionus columbianus</i>)	Browse observed
Amphibian	Observation Type
Red-legged Frog (<i>Rana aurora</i>)	Visual

4.5 Fish Habitat Potential

Coats Marsh is drained via a main outlet stream that exits the marsh at the concrete weir/pond leveler location and flows to the northwest into Hoggan Lake (watershed code 925-380000-26400). Fish stocking records for Hoggan Lake indicate that it was stocked with rainbow trout (*Oncorhynchus mykiss*) and coastal cutthroat trout (*Oncorhynchus clarkii clarkii*) in 1927 (Habitat Wizard 2011). Both these species were observed in the lake in 1972 (FISS 2011),

indicating that either the fish that were stocked established a self-sustaining population, or that the lake has always contained a natural population of fish.

The outlet drop at the concrete weir represents a definitive barrier to the upstream movement of fish. There are also two other documented barriers to the upstream movement of fish located on the outlet stream (Moul and Micksch 2010). Due to the lack of accessibility, fish cannot currently access the marsh from Hoggan Lake. It is unlikely that the marsh supports a natural population of trout, due to past uses, most notably through complete drainage of standing water for agricultural reasons. Historical drainage of the marsh would have led to the demise of any existing resident population of fish. It is likely, however, that the marsh contains three-spined stickleback (*Gasterosteus aculeatus*), due to their more ubiquitous nature.

4.6 Engineering Assessment Results

There are three hydraulic controls on the pond level, namely the weir, the beaver dam, and the pond leveler. The beaver dam is not subject to engineering assessment.

The weir is in fair condition. It does have evidence of a cold joint, which could represent a serious defect if there was high shear stress on that joint; however, it is considered that there is not a significant risk of failure in its present situation.

As noted previously, the leveler represents the present critical hydraulic control on the pond level. Evaluation of its capacity (noting that it has a 3° uphill slope) is not within the scope of this work, and neither is an evaluation of the capacity required to adequately maintain the pond level to prevent flooding. However, it would be practicable to increase the capacity of a leveler by replacing the presently-installed leveler with one of greater diameter (a pipe of up to 600 mm outside diameter would fit within the weir without alteration of the concrete geometry).

Earthworks to construct a berm would be considered to be practicable, provided that access is permitted through 1040 Coats Drive and the works were approved by regulatory agencies. A berm of 1 m height would likely be 6 m or 7 m wide. For each metre of height required over 1 m height, the width of the berm would increase by 5.5 m. The length of the berm would be determined by survey, and by

the desired crest height. Based on the relatively low relief around the marsh edge, the berm could be in the order of 30 m long for a height of 0.5 m.

The berm would act as a dam. Water may be expected to flow through the berm, as it does in a dam. Long-term seepage should be expected; however, this is mitigated by the expectation that the water levels will only be temporarily elevated.

Height (m)	Width of Berm with Slopes at 3H:1V and 1 m Crest Width (m)	Estimated Volume per m Length (m ³)
0.5	4	1.3
1.0	7	4
1.5	8.8	8.3

Alternatively (subject to regulatory approval), that part of the land on 1040 Coats Drive could be filled to a level of, say, 0.3 m above a pre-determined flood level to provide some amenity to that area in the event of flooding. This may be a more aesthetic option, creating less disturbance to the wetland ecosystem than the construction of a berm (to be determined by survey data).

5.0 DISCUSSION

5.1 Environmental Assessment

5.1.1 Ecosystem Attributes

The wetland ecosystem known as Coats Marsh provides an important habitat feature for a range of wildlife, including a number of listed species. The wetland also supports a unique range of hydrophytic plant assemblages adapted to living in moist conditions. The forested fringe surrounding the wetland adds to the habitat diversity of the study area, as it creates functional “edge” habitat.

Any proposed modifications to the wetland must take into account the biological value of the ecosystem. The fact that the wetland and majority of the forested fringe are located in a Regional Park will help to maintain the ecological integrity of the ecosystem in perpetuity.

The wetland has undergone significant alterations in the past, including drainage in order to provide farming opportunities. The level of the wetland is currently controlled artificially by a concrete weir, and more recently by a pond leveler device. The activity of beavers at the outlet has led to the development of a dam,

which is decreasing the effectiveness of the flow/level control structures and has likely led to the increase in the water level over recent years.

The beaver dam was active at the time of the assessment and will likely remain active until food sources in and around the wetland can no longer support the beavers. If food sources do become depleted to the point where the beavers leave the wetland, the beaver dam will likely fail, and the level of the wetland will once again be controlled completely by the weir and the pond leveler.

If the beavers were no longer active, the level of the wetland would drop back to the more “normal” level dictated by the control structures, and flooding issues associated with adjacent properties would decrease. Early successional-stage deciduous trees and shrubs would also become established around the drying margins of the wetland, leading to the creation of forage material for beavers.

5.1.2 Flood Mitigation

As the action of beavers is difficult to predict, and their impacts difficult to manage, the flooding concerns of the property owner to the immediate west of the outlet need to be discussed. During the field assessment (July 27th 2011), no evidence of flooding could be determined in the area of the property that is currently used to the west of the wetland edge (e.g. grassy lawn and areas supporting structures).

The high water mark of the wetland was estimated to be demarcated by the edge of hydrophytic vegetation, with no evidence of inundation beyond this point onto the grassy lawn. A review of photographs taken during high water in December 2010 included in Moul and Micksch (2010) also did not provide evidence that water inundates the lawn, or areas supporting structures during the winter months.

We understand, however, that the recent expansion of the open water portion of the wetland has encroached into the focus property. As noted above, this encroachment does not appear to be occurring over the lawn or into areas supporting structures.

You requested us to consider the potential construction of a flood control structure, such as a berm. Prior to the installation of a berm, the reasoning should be justified and specific elevations calculated by carrying out a site survey.

A site survey would also be required should the required option be to apply fill to the area that is flooding.

It should be noted that the construction of any flood control structures would necessitate approvals under Section 9 of the provincial Water Act. In addition, the reasoning for intervening would need to be justified, as it would be subject to approval from regulatory agencies (e.g. Fisheries and Oceans Canada – DFO - and MoE). Any subsequent development activities on private property that are not associated with Section 9 activities within 30 m of the high water mark would fall under the jurisdiction of the provincial Riparian Areas Regulation (RAR). The wetland qualifies as a “stream” under the RAR, as it connects by surface flow to confirmed fish habitat (Hoggan Lake).

Any existing structures and land uses are considered “legally non-conforming”, and the landowner can continue to use the land as it has been used in the past. If any “new” developments beyond the scope of Section 9 activities are proposed within 30 m of the high water mark on private property, a detailed assessment under the RAR would be triggered. In the case of the subject property, a detailed assessment would lead to a minimum riparian setback of 15 m from the high water mark. No new developments, apart from those involving Section 9 work (including activities such as vegetation clearance) would be permitted within the 15 m area.

Wetlands usually represent dynamic systems with naturally changing water levels. The Coats Marsh wetland, however, is controlled by the outflow control structures and, to some extent, the action of beavers at the outlet location. Unless the weir and outlet control structures are removed, the wetland will remain as a marsh/shallow open water ecosystem.

Natural infilling over time may reduce the open water component, and the potential absence of beavers in the future would also decrease the extent of inundation. As the removal of the flow control structures is unfeasible, and given the apparent value of the wetland to a range of wildlife species, any potential loss of habitat associated with artificial alterations to the current high water mark (e.g. increasing the capacity of the leveler) should be determined.

Regarding potential ecological impacts to the current values of the wetland ecosystem, the application of fill would represent the least overall long-term impact. Construction-related impacts would need to be identified and properly

mitigated (e.g. sediment and erosion control, management of deleterious substances and riparian vegetation replacement). If deemed necessary, the filled area would represent a localized construction footprint, although specific biological attributes in the construction area would need to be identified. Appropriate permitting processes would need to be followed, with approvals required from the MoE and DFO.

The filled area could also be vegetated with appropriate species that contribute to riparian function. The reasoning for filling must be justified, however, and we re-iterate that any new development within 30 m of the high water mark of the wetland (*i.e.*, on the filled area) would be subject to the RAR.

Regardless of which option is chosen for implementation, it would be beneficial to complete all appropriate permit applications early in order for regulatory agencies to have the necessary time needed for review and approval.

5.2 Engineering Assessment

5.2.1 Hydrology

Any land adjacent to a watercourse will be subject to intermittent flooding. Engineering devices can be implemented to manage the flooding to certain criteria (e.g. 1 in 100 year flood level) but flooding should be expected.

A critical input into the flood mitigation is the assessment of the design flow out of the marsh, during which the marsh will be in flood. We recommend that the hydrological aspects of the marsh be evaluated in Stage 2. If this is not evaluated, then a process of observation and response should be adopted, in which case we would recommend that monitoring of the pond level should be carried out for a period of at least six months, with particular emphasis to monitoring during and after periods of heavy rainfall.

In either case, it is recommended that a land survey be carried out at the weir, and in the area of the marsh boundary with 1040 Coats Drive to establish salient elevations and gradients.

In the event that a hydraulic assessment of the pond leveler's capacity indicates that it has sufficient capacity for the design flood in the marsh, then the flooding that occurs should either be accepted as "normal" or the design criteria should be reviewed.

In the event that the existing pond leveler has insufficient hydraulic capacity, then the recommended method of flood mitigation is to replace it with a leveler of adequate hydraulic capacity, installed at an elevation that does not lower the pond below the present summertime elevation. Potential impacts involving habitat loss associated with decreasing the current winter high water mark of the wetland would need to be established.

The construction of a berm, or raising the area that floods with the use of fill are considered practicable, but environmental impacts would need to be controlled during construction, as noted above. From environmental considerations, the construction of a berm or placing fill to raise the land would be permitted, but would fall under the jurisdiction of the provincial Water Act.

Construction of a berm/raising the land would still not allow for subsequent development on private property within 30 m of the high water mark, without the completion of a detailed RAR assessment, at which point the setback would be set at 15 m from the high water mark. Any fill placed on 1040 Coats Drive may be considered as landscaping, and will not require engineering review during placement (although we recommend that at least the surface should be stripped and reviewed to confirm that the topsoil has been removed [this can be reused]).

6.0 PRELIMINARY COST ESTIMATES

The preliminary cost estimates for the following items are to be regarded as “ball-park estimates” due to the volatility of consultants’ and contractors’ pricing policies, amongst other factors. Table 6 lists the potential options, the regulatory requirements and estimated costs involved.

Table 6. Flood Mitigation Options and Requirements

Option/Requirement	Regulatory Requirements	Estimated Professional Fees	Estimated Cost
Hydrological and Hydraulic Assessment	N/A	\$8,000.00 – \$12,000.00 (Hydro-tech consultant)	
Land Survey	N/A	\$2,000.00 – \$3,000.00 (Surveyor)	
Removal and Replacement of Pond Leveler with Larger Capacity Leveler	Completion of Section 9 application form and supporting documentation that details potential impacts associated with lowering the winter high water mark of the wetland. Completion of Project Review Application Form (PRAF) for DFO approval.	\$2,000.00 – \$3,000.00 (ecological aspects)	\$5,000.00 – \$10,000.00
Berm Construction	Completion of Section 9 application form and supporting documentation that details potential impacts and mitigation. Completion of PRAF for DFO approval.	\$2,000.00 – \$5,000.00 (Geotech) \$1,500.00 (ecological aspects)	\$15,000.00 – \$30,000.00
Applying Fill to Raise the Area that is Inundated	Completion of Section 9 application form and supporting documentation that details potential impacts and mitigation. Completion of PRAF for DFO approval.	\$1,000.00 (if a fill specification is required, and one site visit to confirm stripped surface – fill will not be structural). \$1,000.00 (allowance for survey if volume is to be measured for payment purposes). \$1,500.00 (ecological aspects).	\$2,000.00 – \$5,000.00 (assuming access is permitted via 1040 Coats Drive)

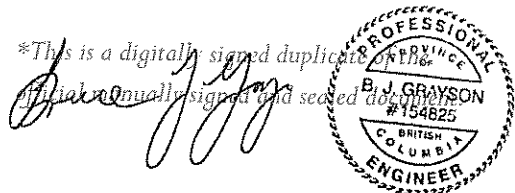
The estimated costs for the various activities outlined above should be refined by an estimator or quantity surveyor prior to making your decision.

If you have any questions regarding the above assessment, please do not hesitate to contact us at the Madrone office.

Prepared by:



Trystan Willmott, B.Sc., A.Sc.T.



Bruce Grayson, P.Eng.

7.0 REFERENCES

- B.C. Conservation Data Centre. 2011. BC Species and Ecosystems Explorer. B.C. Minist. of Environ. Victoria, B.C. Available: <http://a100.gov.bc.ca/pub/eswp/>
- B.C. Conservation Data Centre. 2011. Species Summary: *Contopus cooperi*. B.C. Minist. of Environment. Available: <http://a100.gov.bc.ca/pub/eswp/>
- B.C. Conservation Data Centre. 2011. Species Summary: *Hirundo rustica*. B.C. Minist. of Environment. Available: <http://a100.gov.bc.ca/pub/eswp/>
- B.C. Ministry of Environment. 2011. Fisheries Information Summary System. Available: <http://www.env.gov.bc.ca/fish/fiss/index.html>
- B.C. Ministry of Environment. 2011. Habitat Wizard. Available: <http://www.env.gov.bc.ca/habwiz/>
- Braun, C. E. 1994. Band-tailed Pigeon. Pp. 61-74 in T.C. Tacha and C.E. Braun (Eds.). Migratory shore and upland game bird management in North America. International Association of Fish and Wildlife Agencies. Washington, D.C. 223 pp.
- Butler, R. W. 1992. Great Blue Heron. In *The Birds of North America*, No. 25 (A. Poole, P. Stettenheim, and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, DC: The American Ornithologists' Union.
- Campbell, W., N.K. Dawe, I. McTaggart-Cowan, J.M. Cooper, G.W. Kaiser, and M.C.E. McNall. 1990. *Birds of British Columbia Volume II: Diurnal Birds of Prey through Woodpeckers*. UBC Press, Vancouver, B.C.
- Environment Canada. 2004. Bald Eagle: An indicator of wildlife sustainability in British Columbia. Online: <http://www.ecoinfo.ec.gc.ca/>
- Fraser, D.F. and L.R. Ramsey. 1996. Status of the Green Heron in British Columbia. Wildlife Working Report No. WR-78. Ministry of Environment, Lands and Parks.

- Johnsgard, P. A. 1988. North American Owls: Biology and Natural History. 1 ed. Smithsonian Institution, Washington D.C., U.S.A.
- McClaren, E. 2004. “Queen Charlotte” Goshawk (*Accipiter gentilis laingi*). Identified Wildlife Management Strategy 2004. Ministry of Water, Land and Air Protection, Victoria, BC. 15 pp.
- Moul, I and J. Micksch. 2010. Ecological Features and Management Recommendations for Coats Marsh Regional Park – Gabriola Island.
- Proulx, G., D. Bernier, J.M. Heron and K.A. Paige. 2003. A Field Guide to Species at Risk in the Coast Forest Region of British Columbia. Interfor/MWLAP.
- Resources Inventory Standards Committee (R.I.S.C.) 1999. Wildlife habitat rating standards, Wildlife Interpretations Subcommittee, Wildlife Branch, Ministry of Environment Lands and Parks, Victoria, B.C.
- Species at Risk Public Registry. 2011. Species Profile – Western Painted Turtle Pacific Coast Population. Available:
http://www.sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=902
- Stalmaster, M., R.L. Knight, B.L. Holder & R.J. Anderson. 1985. Bald Eagles. Chapter 13 in E.R.Browne (Ed). 1985. Management of Wildlife and Fish Habitats in Forests of Western Oregon and Washington. (Part 1).
- Ward, P. G. Radcliffe, J. Kirkby, J. Illingworth and C. Cadrin. 1998. Sensitive Ecosystems Inventory: East Vancouver Island and Gulf Islands 1993–1997. Volume 1: Methodology, Ecological Descriptions and Results. Technical Report Series No 320, Canadian Wildlife Service, Pacific and Yukon Region, BC.