



Additional Agency Consultation



Niagara Escarpment Commission (NEC)

Niagara Escarpment Commission

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June 24, 2015

Mr. Ron Scheckenberger
AMEC Foster Wheeler
3215 North Service Road
Burlington, ON
L7N 3G2

Dear Mr. Scheckenberger:

Re: Class Environmental Assessment – Belfountain Dam and Headpond

As a follow-up to our meeting on June 17, 2015, Niagara Escarpment Commission (NEC) staff offers the following comments.

1. Staff understands that the purpose of this Class Environmental Assessment (EA) study is, in part, to identify a preferred solution that will ensure that the Belfountain Dam meets current provincial standards for dam safety. It is also to explore options for the dam and headpond, while considering natural heritage and cultural heritage values and visitor safety and experience.
2. We also understand that the project team intends to coordinate this Class EA with the Belfountain Conservation Area Park Management/Master Plan process, more specifically the public consultations. Staff agrees that this approach offers advantageous but recommends that the purpose and objectives of each study be clearly articulated and that if any issues do arise with either project, they could then move forward independently, as necessary.
3. As noted at our meeting, the study area falls within the Niagara Escarpment Plan (NEP) Area, specifically within the land use designation of Escarpment Natural Area. Part 1.3 of the NEP contains objectives, criteria and permitted uses for the aforementioned land use designations. Essential watershed management and flood/erosion control project carried out by a public authority and uses permitted in Park or Open Space Master/Management Plans, which are not in conflict with the NEP, are permitted uses in Escarpment Natural Areas. Part 2 of the NEP provides development criteria to guide how development should be carried out. The EA study will need to consider and assess whether the policies of the NEP can be met as part of the evaluation of alternatives. The EA will also need to provide justification that the preferred alternative is considered “essential” (i.e., an essential watershed

management and flood/erosion control project carried out by a public authority) and in the public interest after all alternatives have been considered.

4. Development proposed on lands within the NEP Area, and under Development Control, is required to meet the policies of the NEP. Please note that the NEC is responsible for interpreting the policies of the NEP. Any changes proposed to policy will require an amendment to the NEP. The amendment process is outlined in Section 6.1, 7 8 and 10 of the *Niagara Escarpment Planning and Development Act (NEPDA)*. NEP policies may only be changed if the purpose and objectives of the *NEPDA* and NEP are met and sufficient justification for an amendment is provided.
5. We acknowledge that CVC has previously requested confirmation from the Ministry of Natural Resources and Forestry (MNR) regarding whether the study area is considered regulated habitat of an endangered species (e.g., Jefferson Salamander, American Eel). We understand that the MNR has confirmed that nearly the entire site is considered regulated habitat of the Jefferson Salamander. An amendment to the NEP would be required to permit development in regulated habitat, as would a NEC Development Permit, before any works can occur in this area, if the works are not considered exempt as per Ontario Regulation 828/90.
6. As noted in our meeting, Ontario Regulation 828/90 (Niagara Escarpment Development Control Regulations) does provide exemptions from the need for a Niagara Escarpment Development Permit for a number of uses/works, provided the proposal is a permitted use in the Niagara Escarpment Plan and is not in conflict with a Development Permit issued.
7. Sections 5.1 and 5.2 of the Regulation exempts the maintenance or repair of land, buildings and structures damaged without any human intervention, by fire, lightning, unusually severe weather, storms, floods or other natural causes, provided that the reconstruction is on the same site where the damage occurred, does not change the use, does not result in a larger structure than what had originally occupied the site and the works are started within two years of the damage. Section 5.17 of the Regulation exempts the maintenance of land, buildings and structures under the jurisdiction of a conservation authority. [Note: an exemption from the NEC does not constitute an exemption from the need to obtain any other applicable municipal or ministry permits or approvals (e.g. *Endangered Species Act*)]
8. At this point in time, and given that a preferred alternative has not been identified, we cannot confirm whether an exemption from the requirement of obtaining NEC approvals could be issued or whether an amendment to the NEP is required. Once a preferred alternative has been identified and the scale and scope of works have been determined, staff will be in a better position to assess what NEC approvals will be needed.
9. If after a preferred alternative has been identified and if NEC staff has determined that a NEP amendment is required, staff recommends that CVC consider submitting an NEP amendment application (and see if approval under the *NEPDA* is granted) prior to the filing the EA and Master Plan study, and to ensure that the preferred

alternative can ultimately proceed. Should you wish to finalize the EA in advance of receiving an approval through the NEC amendment approval process, it is at the risk that the preferred alternative may not be approved or able to proceed.

10. Please note that if an Amendment to the NEP is granted for any proposed dam works, as well as a NEC Development Permit issued, an addendum to the Belfountain Conservation Area Master Plan will need to be prepared so as to describe and detail the proposed undertaking. Information from the EA study and NEP Amendment application can be used to justify the change to the Master Plan.
11. Finally, as discussed at the meeting, the NEP is currently under review, along with the Greenbelt Plan, Oak Ridges Moraine Conservation Plan, and the Growth Plan for the Greater Golden Horseshoe. The timelines for the completion of this review is unknown at this time but could have implications for this project. Staff will keep the project team informed of any changes that could impact the study or NEC requirements.

I trust that this is of assistance. Should you have any questions, please feel free to contact me via email at kellie.mccormack@ontario.ca or via phone at (905) 877-6370 or Ken Whitbread, Manager, via email at ken.whitbread@ontario.ca or via phone at (905) 877-4026.

Sincerely,



Kellie McCormack, MCIP, RPP
Senior Strategic Advisor

Cc: Laura Rundle and Eric Baldin, CVC
Sean Stewart, NEC
Susan Cooper, MNRF

Dearlove, Heather

Subject: FW: Belfountain Conservation Area Dam and Headpond Class EA
Attachments: Belfountain EA prelim comments.pdf; ATT00001.txt

From: Grbinicek, Lisa (MNRF) [<mailto:lisa.grbinicek@ontario.ca>]
Sent: December 11, 2015 10:01 AM
To: Rundle, Laura
Subject: RE: Belfountain Conservation Area Dam and Headpond Class EA

Hi Laura,

I would refer to the NEC correspondence of June 24, 2015 (from Kellie McCormack), which provides preliminary comments on the EA. I have attached this letter for ease of reference.

Kellie correctly identified at that time (Point 3), that the EA study would need to consider and assess whether the policies of the NEP (including Part 2 Development Criteria) can be met as part of the evaluation of alternatives, and the EA would also need to provide justification that the preferred alternative is considered “essential” and in the public interest after all alternatives have been considered. It would not be up to the NEC staff to provide this assessment from the information included in the EA.

I mentioned this now as a heads up so it won't be a surprise in my formal comments, as in my cursory look at the reports I didn't see this analysis, however I might be premature in identifying this given I haven't completed my thorough review.

With respect to American eel habitat, MNRF would have to weigh in to identify whether the study area is considered American eel habitat (have they commented on this to date?). I will, as you have requested identify where there would be conflicts with the NEP Part 2.8.1 as a result of development in the habitat of endangered species, and comment on the issue of timing with respect to NEC and EA approvals.

Lisa

Lisa Grbinicek, MCIP, RPP
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From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: December 10, 2015 3:31 PM
To: Grbinicek, Lisa (MNRF)
Subject: RE: Belfountain Conservation Area Dam and Headpond Class EA

Hi Lisa,

Thank you for your email. Just to clarify, at this stage in the process we have identified a short list of projects only – not the preferred alternative.

I also wanted to make sure that I understood your email correctly:

- 1) *The EA will need to provide justification that the preferred alternative is considered “essential” and in the public interest after all alternatives have been considered:*
 - We expect this justification through the EA process and accompanying reports and will await your comments on the reports. If you could please take a look at the three short-listed alternatives (Technical Report 2) and provide feedback cautioning which, if any, of the alternatives would not be supported by the NEC, it would be appreciated.

- 2) *Given the area is regulated habitat of Jefferson Salamander and possible American Eel (if I understand correctly), An Amendment to the NEP would likely be required (again depending upon the final preferred alternative).*
 - Please note that American Eel has been found in the reach between the Belfountain Dam and the downstream Stonecutter’s Dam. Again, when reviewing the reports could you please provide guidance on which, if any, of the short-listed alternatives would require an amendment? Also, while I am familiar with the application process for an amendment, I am not familiar with the process from a public consultation perspective (what recourse does the public have if they don’t like the alternative?). As you are aware, depending on the outcome and the individuals involved, we are cognizant of the community’s familiarity with Part II Orders for EAs as it is. Could you please provide some clarity as to when in the process an amendment may be required (before/approval from MOECC?).

Thank you Lisa – please let me know if I need to clarify any of my questions.

Have a happy holiday,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Grbinicek, Lisa (MNRF) [<mailto:lisa.grbinicek@ontario.ca>]
Sent: December 9, 2015 4:58 PM
To: Rundle, Laura
Subject: RE: Belfountain Conservation Area Dam and Headpond Class EA

Hi Laura,

Thanks for this email, it has been on my mind to contact you regarding next steps and deadlines for comment. I am working towards completing my review of the two technical reports and will be able to provide comments by the assigned deadline.

As was identified in the previous comments on the Class EA, given that the study area falls within the NEP Escarpment Natural Area, the EA will need to provide justification that the preferred alternative is considered “essential” and in the public interest after all alternatives have been considered. Additionally, given the area is regulated habitat of Jefferson Salamander and possible American Eel (if I understand correctly), An Amendment to the NEP would likely be required (again depending upon the final preferred alternative). I will be looking to determine if these matters have been addressed in the Reports and will provide my formal comments.

Thanks,

Lisa

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From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: December 9, 2015 8:53 AM
To: Grbinicek, Lisa (MNRF)
Cc: 'Brouwers, Aaron'
Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Lisa,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The Niagara Escarpment Commission has been identified as having a key role in the review and approval for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory
Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

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Dearlove, Heather

From: Rundle, Laura <LRundle@creditvalleyca.ca>
Sent: March-17-16 8:09 AM
To: Brouwers, Aaron; Baldin, Eric
Subject: NEC Comments_Belfountain EA

Hi Eric and Aaron,

Please see email/comments from Lisa at the NEC regarding the Class EA.

Please let me know if are you available at 10am on Tuesday March 22nd for a conference call.

Thanks very much,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Grbinicek, Lisa (MNRF) [mailto:lisa.grbinicek@ontario.ca]
Sent: March 16, 2016 4:20 PM
To: Rundle, Laura
Subject: RE: Belfountain EA

Hi Laura,

Thanks for the follow up. I've reviewed the materials and slide deck from the last meeting detailing the preferred alternative. I do think I would benefit from a further discussion if you have some availability next week (Tuesday?).

Specifically, I would like to better understand the backfilling component of the project in more detail, if you have that level of detail to provide, and discuss potential SAR habitat issues.

Some additional matters to discuss include:

With respect to your January 12, 2015 memo on the Niagara Escarpment Plan Interpretation – Part 4.c. states that only one of the alternative proposes “new construction”. This is not a correct interpretation. All of the proposed alternatives you have identified (including the preferred alternative), would be considered development, which is defined as a change in use of any land building or structure (in the NEPDA), and so NEP Part 2.8.1 respecting the prohibition of development in the habitat of endangered species would be applicable. I still require confirmation from the MNRF with respect to whether the headpond is considered habitat for American Eel.

Additionally, we will have to further discuss the preferred alternative in consideration of the identified habitat of JESA (has MNRF indicated whether an ESA Permit would be required?). It is likely that an Amendment to the NEP will be required, as we have previously discussed. As you are aware there the Co-ordinated Provincial Land Use Plan Review is underway which may result in a review of policies respecting SAR habitat in the NEP, we should discuss timing of the

Once the EA is complete, the Management Plan will need to be amended to include details of the preferred alternative, and the NEP amendment would be required in order for the proposals to be included in the Management Plan (as only development not in conflict with the NEP may be included in the Management Plan). The amendment to the NEP would be required prior to the Management Plan being finalized.

How would 10am on Tuesday March 22 work for you to discuss these matters further?

Thanks,

Lisa

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: March 9, 2016 3:24 PM
To: Grbinicek, Lisa (MNRF)
Subject: RE: Belfountain EA

Good afternoon Lisa,

I just wanted to touch base with you about the Class EA for the Belfountain Dam and Headpond. I understand that you are busy in your new role, but I wanted to provide you with a brief update to let you know where we are in the Class EA process.

CVC has identified a preferred alternative for the project (please see the attached factsheet for visuals): it involves lowering the dam by +/- 1m, backfilling the existing headpond and naturalizing the channel. We feel that this alternative best meets the objectives that were initially laid out for the project. We will be going out to public consultation on Thursday, March 24th, 2016 to present the preferred alternative.

I would be more than happy to set-up a conference call if you would like to discuss the Class EA in detail.

Kind regards,

Laura Rundle
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lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Rundle, Laura
Sent: February 12, 2016 3:26 PM
To: 'Grbinicek, Lisa (MNRF)'
Subject: RE: Belfountain EA

Thanks for the update Lisa.

Congratulations on your new role – I can understand how busy you must be and appreciate being updated on your timelines.

Please note that I am out of the office from Feb 17 – 23 (I am in the office next Tuesday). If you could cc Aaron Brouwers (aaron.brouwers@amecfw.com) on your comments, it would be much appreciated as well.

Thank you and have a nice family day weekend,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

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laura@creditvalleyca.ca | creditvalleyca.ca

From: Grbinicek, Lisa (MNRF) [<mailto:lisa.grbinicek@ontario.ca>]

Sent: February 11, 2016 9:25 AM

To: Rundle, Laura

Subject: Belfountain EA

Hi Laura,

Just touching base I had told you on our last call that I had anticipated being able to provide comments/discuss Belfountain early this week, unfortunately I have been pulled away on other things again and am behind on this, but still hope to turn my attention to it tomorrow and will touch base next Tuesday with you. I think I mentioned I am acting manager in Ken's retirement right now, and instead of passing this one to yet another staff member I am trying to maintain carriage of the file.

Thanks for your patience with me on this one!

Lisa

Lisa Grbinicek, MCIP, RPP

Acting Manager

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Dearlove, Heather

From: Grbinicek, Lisa (MNR) <lisa.grbinicek@ontario.ca>
Sent: March-22-16 11:27 AM
To: Rundle, Laura; Brouwers, Aaron; Baldin, Eric
Subject: RE: JESA Habitat in BCA

Further to our conversation, I provide an excerpt of the NEC recommendations for amendments to the NEP Part 2.8 respecting development in the habitat of Species at Risk (endangered and threatened species):

1. In the habitat of endangered species and threatened species:

- a) Development that will damage or destroy the habitat of an endangered or threatened species will not be permitted.
- b) Notwithstanding Part 2.8.1 a), creation of a new lot or lots shall not be permitted where all or part of the new lot includes the habitat of an endangered or threatened species, except in the following circumstances:
 - i) Land acquisition by a public body for park and open space, or pedestrian trail purposes;
 - ii) Land acquisition by an approved conservation organization;
 - iii) For the purpose of enlarging existing lots;
 - iv) For the purpose of correcting a conveyance as defined by this Plan.

2. Notwithstanding Part 2.8.1, development may be permitted in the following circumstances provided the requirements of the *Endangered Species Act* (2007) are met, in addition to all other requirements of this Plan:

- a) Development of a single dwelling and accessory building or structure or incidental uses on an existing lot of record.
- b) Development in the habitat of species identified in the species specific exemption regulations under the *Endangered Species Act, 2007*: Ontario Regulation 242/08 as amended.
- c) Development in an Urban Area, Minor Urban Centre, Escarpment Recreation Area or a Mineral Resource Extraction Area designation.
- d) Development within a park or open space area identified within Appendix 1 of this Plan where such development is authorized under a Master or Management Plan approved in accordance with Part 3 of this Plan as of X, XX, XX.
- e) Development of a transportation or utility facility where such development is determined to be essential under the policies of this Plan.
- f) Development where the purpose of the activity is to assist in the protection and recovery of the species.

As discussed, this is only Commission recommendation to the Minister at this time, and does not represent final approved policy. The province will come out with proposals for Amendments to the

NEP for further public consultation and the Minister will make the final determination on the amendments. Additionally, I have to give some thought to Part d) of the proposal above, in terms of whether it actually creates a catch 22 in that all development identified in a Master/Management Plan must be consistent with the NEP Part 2 (including proposed Part 2.8.1 which states no development). However, if the MNRF supports that the development is not considered damage or destruction of habitat, then it would also meet proposed Part 2.8.1 above, and you wouldn't require Part 2.8.1 d).

Lisa

From: Rundle, Laura [mailto:LRundle@creditvalleyca.ca]
Sent: March 22, 2016 10:30 AM
To: Grbinicek, Lisa (MNRF); Brouwers, Aaron; Baldin, Eric
Subject: JESA Habitat in BCA

Laura Rundle

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Niagara Escarpment Commission
An agency of the Government of Ontario

June 15, 2016

STAFF REPORT

Re: Belfountain Conservation Area Dam and Headpond – Class Environmental Assessment, Analysis of Alternatives and Proposed Next Steps

SUMMARY RECOMMENDATION

That the Niagara Escarpment Commission (NEC) receive this report on the Belfountain CA Dam and Headpond Environmental Assessment (EA) and endorse staff's analysis that the preferred alternative can be further evaluated by the NEC by means of a Development Permit Application.

BACKGROUND

The Belfountain Dam and headpond are located on the West Credit River in the Belfountain Conservation Area, which together with the Willoughby Property and the Cox Property, comprise the larger Belfountain Complex (Figure 1).

Charles Mack purchased the land in 1908 with the intention to create a public recreational area. The Belfountain Dam was built in an attempt to mimic Niagara Falls and create a feature for his park ("Mack Park"), which opened to the public in 1914. The dam served as an aesthetic feature and the headpond enabled recreational activities such as swimming, boating and fishing.

Credit Valley Conservation (CVC) purchased the property in 1959 and at that time began to acquire additional parcels comprising part of what is now the Belfountain Complex. CVC has made some improvements to the dam over time, however the main spillway structure remains largely original and continues to serve the same aesthetic and recreational purposes for the Belfountain Area. (The dam has never provided flood control or purposed flow augmentation.)

All dams in Ontario are required by the Province to undergo periodic Dam Safety Reviews (DSR). A DSR reviews the engineering (hydrology, hydraulics, structural, geotechnical) and safety and operational aspects of a dam. A DSR was undertaken for Belfountain Dam in 2007 and based on the recommendations of this Review, a further study - the *Geotechnical Investigation and Dam Safety Report, Belfountain Dam* (Terraprobe, December 2013), was undertaken. This 2013 study revealed structural issues with the dam and concluded that the dam does not meet provincial safety

standards. Additionally, the headpond associated with the dam has been identified as having a variety of environmental impacts, including contributing to warming of downstream river habitat and preventing the transportation of sediment.

The Class Environmental Assessment for Remedial Flood and Erosion Control Projects (Conservation Ontario, June 2002, amended June 2013), establishes a planning and approval process for a variety of remedial flood and erosion control projects that may be carried out by Conservation Authorities (CAs). The Class EA sets out procedures and environmental planning principles for CAs to follow to plan, design, evaluate, implement and monitor a remedial flood and erosion control project so that environmental effects are considered as required under the *Environmental Assessment Act*, on the condition that the planning and design process outlined in the Class EA is followed and that all other necessary federal and provincial approvals are obtained. The evaluation of alternative methods of carrying out an undertaking must include consideration of all applicable legislation, regulations, policies and guidelines. The Niagara Escarpment is included as one criterion (of many) for consideration in the screening of potential environmental effects of a preferred flood or erosion control undertaking. The NEC is referenced as an agency to be consulted with and the undertaking must ultimately comply with the requirements of the *Niagara Escarpment Planning and Development Act* (NEPDA).

The need for management of the Belfountain Dam and Headpond was identified in the early 2000s, however consensus was not achieved at the time, and ultimately decisions were deferred to the future until such time that the matter could be addressed through a park management plan. In 2015 the CVC formally launched a Class EA to determine a preferred solution to address the problems associated with the potential failure of the dam, while considering other identified objectives for the area including conserving and enhancing natural heritage features and promoting natural stream function, conserving cultural heritage attributes, reducing risk to visitors and maintaining or improving visitor experience.

NEC staff provided preliminary comments on the Class EA process in June 2015. Staff identified at that time that the study area falls within the NEP Area and that the EA study would need to consider and assess whether the policies of the NEP can be met as part of the evaluation of alternatives.

The Class EA has been coordinated together with the Belfountain Conservation Area Park Management/Master Plan process, specifically the public consultations. However, due to the complex engineering issues related to the Belfountain Dam, it was known that a Class EA would be required. Any work on the dam will also require an approval from the Ministry of Natural Resources and Forestry (MNRF) under the *Lakes and Rivers Improvement Act* and/or the *Public Lands Act*.

ISSUE

It has been determined that the Belfountain Dam does not meet provincial safety standards. Furthermore, the current state of the Belfountain Dam has raised concerns for potential negative effects on the aquatic environment. The watercourse (West Credit River) and its associated valley lands support valuable aquatic and terrestrial habitat,

much of which has adjusted over time to the presence of the dam, at least locally, along with the species it supports. Of particular note, the dam now represents a barrier to fish passage, providing protection to upstream native brook trout from downstream non-native species.

The primary impacts of the dam include the accumulation of sediment in the headpond upstream and a widening of the upstream river. Direct effects of the dam on channel morphology can be seen in the deep scour pool immediately downstream and the accumulation of sediment and ponding of water, which acts to over widen the upstream, natural channel. Opportunities exist to improve channel dynamics, which would improve sediment transport and aquatic habitat and function. The temperature/dissolved oxygen regime in the pond may also be a potential concern.

The EA study area for the headpond and dam has been identified by the MNRF to include the regulated habitat of Jefferson Salamander under the *Endangered Species Act* (ESA). Although no vernal pools were located within the Belfountain Conservation Area surrounding the dam there are several potential hibernation and foraging habitats as well as several potential migration routes within the surrounding woodland habitat. Therefore there is potential that the preferred alternative will not comply with the NEP Part 2.8.1 respecting endangered species.

DISCUSSION

The study area of the Class EA falls within the Escarpment Natural Area of the NEP Area. Essential watershed management and flood and erosion control projects carried out by a public authority, and uses permitted in Park or Open Space Master/Management Plans, are permitted uses in the Escarpment Natural Area, provided that they are not in conflict with other NEP policies. The EA provides the justification that the undertaking is essential, which is defined in the NEP as that which is deemed necessary to the public interest after all alternatives have been considered.

Seven project objectives were identified as follows:

- 1) Maintain a fisheries barrier between upstream Brook Trout and downstream invasive and non-native species
- 2) Conserve and enhance cultural heritage attributes
- 3) Reduce/minimize risk to visitors, staff and affected property
- 4) Conserve and enhance natural heritage attributes
- 5) Promote natural stream function
- 6) Maintain or improve the visitor experience
- 7) Strive for long-term sustainability including economic viability

The following Reports prepared by CVC's Consulting team in support of the project have been reviewed by NEC Staff and the technical details summarized in this Report:

Technical Report 1 – Baseline Inventory August 2015 prepared by Amec Foster Wheeler Environment & Infrastructure.

Technical Report 2 – Management Alternatives December 2015 prepared by Amec Foster Wheeler Environment & Infrastructure.

Cultural Heritage Evaluation Report: Belfountain Conservation Area, Town of Caledon August 2015 prepared by Amec Foster Wheeler Environment & Infrastructure.

Although the dam and headpond are fundamentally linked (i.e., the headpond exists because of the dam), the two features were dealt with separately to some extent in exploring the alternatives. A separate list of alternatives was developed for the dam and the headpond with an overall consideration of the linked functionality.

The alternatives listed below were considered the core alternatives for each feature.

Dam Alternatives:

- D1. Do Nothing
- D2. Rehabilitate the dam
- D3. Replace the dam
- D4. Lower the spillway
- D5. Decommission the dam

Headpond Alternatives:

- H1. Do Nothing
- H2. Rehabilitate the headpond
- H3. Expand tableland into the headpond
- H4. Convert part of headpond to wetlands
- H5. Backfill headpond & construct channel
- H6. Construct channel & offline pond
- H7. Restore natural valley and channel

A logical combination of the dam and headpond alternatives was carried forward for consideration (seven options in total), with the exception of the option (D3) to replace the dam. Although replacing the dam (Alternative D3) was identified as a viable alternative, repairing the dam (Alternative D2) would be considered equivalent from a flood risk and safety perspective, and superior from a capital cost and heritage conservation perspective. For these reasons, Alternative D3 was not carried forward in the evaluation of alternatives.

The D1: Do Nothing alternative is required as a baseline benchmark by the Conservation Ontario Class EA process. In some cases, 'doing nothing' may be the best alternative if other options have unacceptable negative effects. Figures 2A & 2B (attached) illustrate the dam and headpond under existing conditions and provides a basis for comparison to the other alternatives.

Previous study has determined that the Belfountain Dam does not meet the structural requirements of the *Lakes and Rivers Improvement Act* (LRIA) that governs the design of dams and protect public safety and private property and therefore the 'Do Nothing' alternative (for the dam), was not a viable alternative and did not meet the identified objective to reduce/minimize risk to visitors, staff, affected property and downstream dams.

Headpond Alternative H1: Do Nothing - under this alternative no works would be proposed and headpond would be left as it is today. While the 'Do Nothing' is a viable alternative for the headpond, it is not compatible with certain alternatives for the dam including Alternative D4: Lower the spillway and Alternative D5: Decommission the dam.

After evaluating and scoring all of the alternatives based on criteria that measured the ability of the alternative to meet study objectives, three alternatives were presented that were carried forward (short-listed), for further consideration. The short-listed alternatives, combining both dam and headpond alternatives were identified as follows:

- Alternative D2H2: Rehabilitate the dam and headpond (Figure 3)
- Alternative D4H5: Lower the spillway and backfill the headpond and construct a channel (Figure 4- Preferred Alternative)
- Alternative D4H6: Lowered the spillway and construct channel and offline the headpond (Figure 5)

The process of developing and identifying these three short-listed alternatives required balancing of environmental and cultural considerations. A preferred alternative was determined based on comments from the public, stakeholders and agency partners, and consideration of achieving the greatest benefits. The identified preferred alternative (D4H5) involves lowering the spillway by approximately one metre, repairing the dam, backfilling the headpond and creating a natural channel. The identified advantages to the preferred alternative include a reduced flood risk, an enhancement of the natural stream function, improvement in aquatic and riparian habitat and an area of reclaimed land (as a result of the backfilled area). The disadvantages identified include impacts to the built cultural heritage and the cultural landscape as a result of the reduction of the dam height and elimination of the pond feature.

Species at Risk

As noted above, the headpond and dam study area have been identified by the MNRF to fall with the *Endangered Species Act* (ESA) regulated habitat of Jefferson Salamander. Although no vernal pools are located within the Belfountain Conservation Area surrounding the dam, there are several potential hibernation and foraging habitats as well as several potential migration routes within the surrounding woodland habitat. CVC ecology staff (who is notably also a member of the Jefferson Salamander Recovery Team), has prepared a detailed characterization of the habitat functions for this species within the Belfountain Conservation Area. CVC staff has identified that the head pond supports Atlantic salmon, brook trout, white suckers and a variety of cyprinids. The presence of fish prevents the headpond from being a sustainable breeding location (due to predation), and the pond is a barrier to movement across the landscape.

Areas within the general construction footprint of the project represent potential dispersal/migration habitat, however the access road, the wooded area upslope from

the manicured lawn area and on the south side of the dam also represent possible foraging, dispersal/migration and hibernation habitat. A first draft of a grading plan indicates that the limit of disturbance on the south side of the headpond is expected to be less than 5 metres beyond the existing edge of water. Detailed design and further environmental impact evaluations will confirm this and allow for further identification and confirmation of whether the proposed disturbed area includes any functional habitat for the endangered species.

The MNRF has indicated support for the preferred alternative. This option would fulfil criteria associated with liability, flood risk, public safety, natural stream function, watercourse thermal regime and fish and riparian habitat. There is priority placed on maintaining a partition between non-native brown trout and the native brook trout found upstream. The MNRF has identified that fish passage for adult Atlantic salmon (a priority species for restoration in the Credit), could be discussed further at the detailed design stage.

The MNRF has confirmed that the proposed decommissioning of the headpond would not result in damage or destruction of the endangered species or its habitat. Therefore, no Permit under the ESA is required. The MNRF will be issuing a Letter of Advice that will include mitigation measures to ensure protection of wildlife habitat.

NEC staff is recommending that a NEP Amendment application is not necessary in order to achieve conformity with the NEP policies, namely Part 2.8.1 regarding development in the habitat of an endangered species. The headpond itself, while captured in the regulated habitat area, is not actually being used by the species. This matter is discussed further in the Staff Comments section below.

Cultural Heritage Resources

The Belfountain Conservation Area is of high archaeological heritage potential because of its proximity to the Credit River and the Niagara Escarpment and includes cultural heritage attributes pertaining to the 19th century water-powered milling history and early 20th century development of “Mack Park” The evaluation of Built Heritage and Cultural Heritage Landscapes for this project was conducted in accordance with *Ontario Regulation 9/06* under the *Ontario Heritage Act (OHA)*, (as amended in 2005), and the guidelines presented in the Ministry of Tourism, Culture and Sport’s (MTCS) *Ontario Heritage Tool Kit*.

The MTCS has reviewed the required technical reports pertaining to cultural heritage resources and provided comments and recommendations for the EA (January 2016). The MTCS has indicated no issues with the technical evaluation reports and the built heritage resources and cultural heritage landscapes identified and indicated that the conservation recommendations outlined in Section 5.0 of the Cultural Heritage Evaluation Report provides sound advice that should be considered in the overall EA.

With regard to the archaeological assessment, the MTCS confirmed receipt of a Stage 1 Archaeological Assessment Report, but review of this report is still pending. MTCS staff identified that as the EA proceeds, comments from the Ministry’s Archaeology Review staff regarding the Stage 1 report may be requested. A Stage 2 archaeological

assessment (by means of test pit survey) must also be carried out in accordance with the MTCS's *Standards and Guidelines for Consultant Archaeologists* (2001).

In summary, from a cultural heritage perspective, the MTCS has identified that each of the three alternatives, with implementation of the proposed mitigation measures, would be acceptable. Mitigation recommendations include that in general, the rehabilitation, removal, or rebuilding of the dam and any subsequent changes to the headpond should respect the both the structure and the landscape as physical records of their time, place and use; new interventions should be physically and visually compatible, but identifiable as new work: documentation of the existing structure should be undertaken before any rehabilitation work is done; and, that heritage interpretive signage should be created with representative early photos of the site.

Heritage Caledon is a statutory committee established under the OHA that provides advice and assistance to Council and Town Staff on matters relating to the conservation of Caledon's cultural and built heritage. Heritage Caledon has indicated support for the preferred alternative however, the committee also acknowledged that the loss of the headpond and lowering the spillway would be considered a significant impact to the park's cultural heritage landscape. The Committee recognized that lowering of the spillway (to one metre), would help to mitigate this impact.

STAFF COMMENTS / CONCLUSIONS

Staff participated in multiple technical stakeholder/agency group meetings and discussions throughout the Class EA process. Staff supports the information presented by the study team contained in the technical reports and finds that a thorough and balanced approach has been taken in assessing the possible alternatives. The study team is aware of the environmental constraints associated with the Niagara Escarpment and has taken these into consideration in determining the preferred alternative.

At staff's request, CVC provided an additional assessment (January 2016), of the short-listed alternatives against the requirements of the NEP, specifically with respect to the need to demonstrate that the project is essential as defined by the NEP. This scoped assessment concluded that the three short-listed alternatives appear to meet the applicable Part 2 NEP Development Criteria respecting natural heritage and cultural heritage. Staff notes a much more comprehensive review of the merits of the preferred alternative in meeting the NEP Development Criteria will still be required as part of the Development Permit Application, particularly given the Class EA, including the Environmental Study Report (ESR), and detailed design have not been completed and the information contained within these documents will require further consideration and evaluation of the NEP Criteria. It is anticipated that the ESR will include additional details with respect to potential impact and identification of avoidance and mitigation measures regarding endangered species habitat.

Additionally, the preferred alternative would require dredging of the headpond and re-use of that sediment for backfilling of the headpond. Sediment quality could be a concern, depending on the results of a more detailed sediment sampling which staff understands has been requested by the MOECC to verify that contamination is not an issue.

With respect to the demonstration of “essential,” that the preferred alternative is necessary to the public interest after all alternatives have been considered, staff is satisfied that the need to address dam safety does meet the test of essential. The proposed modifications to the headpond are required in part as a result of the dam management needs. Additionally, staff notes that the Conservation Ontario Class EA (Section 3.3) states that the planning and design of remedial flood and erosion control projects should reflect a concern for ecosystems. This requires that emphasis be placed not only on the prevention and mitigation of environmental impacts but also on environmental enhancement. The EA requires that when implementing the planning and design process for remedial flood and erosion control projects, remedial project design shall strive to re-establish, maintain or enhance the natural function (both biological and physical) and appearance of the watercourse and associated features (floodplain, valley, wetlands, beaches, etc.) while recognizing and preserving existing cultural and archaeological features of significance in the project’s study area. All three short-listed alternatives reflect this approach, in that both public safety and natural functions will be enhanced through dam and headpond proposals.

Staff is recommending to the Commission that an NEP Amendment is not necessary as part of the NEC approvals, and that a Development Permit Application would be the appropriate process to further assess the merits of the preferred alternative. While the headpond and dam are identified as being within the regulated habitat of an endangered species, the headpond itself (and associated riparian area) are not in fact being used as functional habitat for the endangered species (i.e. not breeding habitat). The area directly adjacent to the headpond (outside the riparian area) has been identified as potential foraging, dispersal and or migration habitat. It is anticipated that the development area could avoid such potential habitat, however the ESR and detailed design will further confirm the extent of the disturbance area required and whether development is proposed in any potential habitat. There is potential for the application of mitigation measures, including conditions respecting timing windows for construction to address conformity with the relevant NEP policies respecting the protection of habitat for all wildlife habitats, including endangered species. There is also opportunity for further terrestrial habitat restoration to improve as part of the project.

Staff identifies that an endorsement of the preferred alternative by the Commission at this stage of the EA process does not guarantee final approval of a Development Permit Application. The proponent is aware that further assessment of the merits of the preferred alternative against the applicable NEP provisions is required and that such application, even if ultimately endorsed may be subject to appeal. Staff notes that the CVC has received no feedback on the preferred alternative to date from the Region of Peel or the Town of Caledon.

Furthermore, staff has informed the project team that the NEP is currently under review, and proposed changes are currently being consulted on. The timeline for the completion of the review and final NEP is unknown at this time. NEC staff will keep the project team informed of any proposed changes that could impact the NEC approvals process.

NEXT STEPS

CVC will undertake additional consultation on the preferred alternative to receive input on best uses for the proposed new greenspace, consideration for naturalization efforts, and potential visitor service requirements.

The Draft ESR will be completed and circulated to agency partners, including the NEC, for review and comment in early summer 2016. The study team anticipates that the final ESR will be submitted for approval to the Ministry of Environment and Climate Change (MOECC) in the fall of 2016. Once approved, the study team will then move into the detailed design phase of implementation, followed by an NEC Development Permit Application and other necessary approval processes.

As staff has indicated any endorsement or support of the preferred alternative, in principle, at this stage does not indicate final approval of a Development Permit Application.

Staff has identified that an addendum to the Belfountain Conservation Area Master Plan will be required to describe and detail the proposed undertaking.

RECOMMENDATIONS

1. That the NEC receive this report on the Belfountain Class EA and preferred alternative.
2. That the Commission endorse staff's analysis that the preferred alternative can be evaluated by the NEC by means of a Development Permit Application.

Prepared by:

Approved by:

Original Signed by;

Original Signed by:

Lisa Grbinicek
Senior Strategic Advisor

Kim Peters
A/Manager

Attachments:

- Figure 1: EA Study Area Location Map
- Figure 2A: Orthophoto Existing Belfountain Dam and Headpond
- Figure 2B: Alternative D1H1 Do Nothing Alternative
- Figure 3: Alternative D2H2
- Figure 4: Alternative D4H5
- Figure 5: Alternative D4H6



Town of Caledon

Dearlove, Heather

Subject: FW: Belfountain Conservation Area Dam and Headpond Class EA

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: December-09-15 8:29 AM
To: 'Sally Drummond' <sally.drummond@caledon.ca>
Cc: Brouwers, Aaron <aaron.brouwers@amec.com>
Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Sally,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The Caledon Heritage Committee has been identified as having a key role in the review for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory
Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

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March 18, 2016

Laura Rundle
Credit Valley Conservation
1255 Old Derry Road
Mississauga, ON L5N 6R4

RE: Belfountain Dam and Head Pond Class Environmental Assessment.

Thank you for your presentation on March 14th, 2016, outlining the study objectives and preferred alternative of the Belfountain Dam and Head Pond Class Environmental Assessment.

It is the mandate of Heritage Caledon to advise and assist Council in the conservation of cultural heritage resources, both tangible and intangible, thereby supporting the goals and objectives of the Cultural Heritage Conservation policies in the Town's Official Plan.

The Belfountain Conservation Area entails tangible and intangible heritage attributes pertaining to the site's 19th century water-powered milling history and its early 20th century development as 'Mack Park'. These attributes express the value of this significant cultural heritage landscape and are non-renewable. The attributes, which include the head pond, dam and waterfall, contribute significantly to the character of the site and the community's appreciation of its history.

Heritage Caledon understands that the dam no longer meets provincial safety standards, a situation which the CVC needs to address. We also recognize that the overall health of the river is paramount to the area and future of the park, and understand the benefits of long-term sustainability of a natural river corridor and improvement to its riparian and aquatic habitat.

Upon review and consideration of the three short-listed alternatives for the dam and head pond resulting from the EA process, Heritage Caledon provides its support, albeit reluctantly, for CVC's preferred alternative D4H5, which entails lowering the spillway by approximately one metre, backfilling the head pond and constructing a river channel. The loss of the head pond is considered to be a significant impact to the park's cultural heritage landscape. Lowering the spillway also affects the dam and waterfall, key heritage features. However, we recognize that restricting the lowering of the spillway to approximately one metre only will help to mitigate this impact.



One of the unique characteristics of the existing dam is its uneven rock face, which results in a distinctive form of waterfall. As such, we request that this rock face be addressed during Detail Design of the preferred alternative to ensure retention and continuation of the characteristic form of the Mack Park waterfall.

We also note that the preferred alternative includes removal of the 20th century concrete sluice gates and extension of the dam across the width of the river. We fully support these aspects of the preferred alternative as the wider dam will more closely reflect Mack's original design, and ask that they be addressed as proposed during Detail Design.

Heritage Caledon understands that CVC intends to develop new signage and interpretation opportunities paying tribute to both the early industry in the Belfountain area as well as the history of Mack Park through the Belfountain Complex Management Plan.

Heritage Caledon and CVC have agreed to partner with the goal of formally recognizing the cultural heritage value of Mack Park and the site's earlier milling industry by designating the Belfountain Conservation Area property under Part IV of the Ontario Heritage Act. A Statement of Cultural Heritage Value and list of heritage attributes will be developed as part of this process, which will be beneficial to CVC's interpretive programming.

Best regards,

A handwritten signature in blue ink that reads "Joanne Crease". The signature is written in a cursive, flowing style.

Joanne Crease
Chair, Heritage Caledon

cc. Eric Baldin, CVC
Jeff Payne, CVC
Sally Drummond, Town of Caledon

Dearlove, Heather

Subject: FW: Belfountain CA Dam and Headpond Class EA_Technical Report 3

From: "Rundle, Laura" <lrundle@creditvalleyca.ca>

Date: July 20, 2016 at 10:51:16 AM EDT

To: "tim.manley@caledon.ca" <tim.manley@caledon.ca>, "tina.fernandez@caledon.ca" <tina.fernandez@caledon.ca>

Cc: "Brouwers, Aaron" <aaron.brouwers@amecfw.com>

Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good morning Tim and Tina,

I hope that this email finds you well.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

Earlier this year a preferred alternative was selected which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by **Tuesday, August 16th**.

The full report and appendices are available on our website; however, the main body of the report and Appendix E are the primary components for review. They are located here:

- Main Report: http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3-Implementation-Options-and-Assessment-of-Environmental-Effects-Report_DRAFT_July-2016.pdf
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_July2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

Dearlove, Heather

From: DeJager, Jesse <jdejager@creditvalleyca.ca>
Sent: February-10-17 12:25 PM
To: Sally Drummond
Cc: Peter Stewart; paul.dilse@sympatico.ca
Subject: Follow Up - Belfountain Heritage Designation Report & EA Meeting - Feb 9 2017

Hi Sally, Paul, Peter,

Thank you for the meeting yesterday; it was a thorough, honest and productive discussion of the Belfountain heritage report and the EA preferred alternative implications.

One of my primary takeaways is that getting the public realm components 'right' will be of utmost importance to ensure that the mitigation for the loss of the headpond is both historically appropriate and spectacular. When we complete the detailed design phase this year all of your involvement will be particularly critical.

I wanted to track a few of the discussion points and actions (below), so please feel free to add or amend as you see fit to ensure that I am accurately representing our meeting:

Discussion:

- We discussed the current status of the EA and the preferred alternative as well as the CVC/Town comments related to changes in text to designation report
- Clarified that report is to continue to describe heritage attributes of the headpond, but that text related to context of report be added, indicating that a EA preferred alternative which converts the head pond to natural channel is anticipated (with implications for heritage mitigation at implementation phase)
- Paul felt that the Fishery related criteria were too heavily weighted at the expense of Cultural heritage criteria
- Discussed what 'balance' of objectives means in a cultural & natural context, noting Parks Canada principles, EA frameworks and decision making scenarios; although no agreement between Jesse (EA is appropriate balance) and Paul (head pond loss does not represent best action).
- We discussed what the current detail on the preferred alternative may actually look like in execution, noting the number of detailed design items to be sorted out, including the actual location of the new channel (and how it will be stabilized), the size and placidity of any water in front of modified dam height, the south slope functions and treatments, as well as the north side intent (i.e. passive recreational and cultural space)
- Paul noted that cutting into the cultural fabric of the dam represents a serious intervention not to be taken lightly, and underscored the contextual importance of Belfountain (Mack's park)
- Discussed decision making process to date around implementation option of +/- 1m dam lowering to mitigate loss of cultural heritage and waterfall drama while removing 1960's CVC intervention and replacement with better dam geometry (historically appropriate width and waterfall effect).
- Discussed policy and regulation triggers for both heritage and dams and influences on preferred alternative – why it is a compromise solution
- Reviewed historic photos of Mack's tree plantings and stone walls by pond – confirmed symmetrically planted caliper Maples along edge in place from early period until 1960's and park like turf.
- Confirmed that that Mack's walls are listed in heritage attribute of head pond
- Noted that through separate contract George Robb Architect (Peter Stewart) will be responsible for design and plan for the restoration of the Fountain in late 2017 (Ontario 150 Trillium funding approved).
- Compared timelines for EA and Designation, with EA filing to commence next week (30 public review + 45 MOE review) and Designation report finalization before March 7th, with Heritage Advisory Committee, Planning and Development Committee

Actions:

- Jesse to send CVC Board Resolution endorsing preferred alternative to Paul (cc. Peter and Sally)
- Paul and Peter to complete draft designation report prior to March 7th
- Jesse to work with Town of Caledon staff on road closure by-laws for Belfountain (needs to be concluded prior to designation)
- Sally to take Report through Heritage Advisory Committee, Planning and Development Committee and finally to Council (timing to be determined)
- Jesse to host a meeting with broader design team later this spring for Paul, Peter and Sally to present the Town's heritage attributes with a view to detailed design incorporation for best results (to include Brook McIlroy, AMEC & CVC staff)

Please let me know if this fairly summarizes the discussion and actions; it is important to capture this very good discussion so the threads of the thinking are not lost when it comes time to design and implement the preferred alternative and when obtaining Heritage permit approval at later stages.

Thanks again,

- Jesse

Jesse de Jager

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 281 | 1.800.668.5557

jesse.dejager@creditvalleyca.ca | creditvalleyca.ca



Ministry of Natural Resources and Forestry (MNR)

Dearlove, Heather

Subject: FW: Belfountain Conservation Area Dam and Headpond Class EA

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]

Sent: December-09-15 8:09 AM

To: 'Heaton, Mark (MNR)' <mark.heaton@ontario.ca>; Johnston, David P. (MNR) <David.P.Johnston@ontario.ca>

Cc: Brouwers, Aaron <aaron.brouwers@amec.com>

Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Mark and David,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The MNR has a key review and approval role for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory

Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

Dearlove, Heather

From: Brouwers, Aaron
Sent: December-09-15 9:04 AM
To: Dearlove, Heather
Subject: FW: Belfountain Conservation Area Dam and Headpond Class EA

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

From: Rundle, Laura [mailto:LRundle@creditvalleyca.ca]
Sent: December-09-15 8:09 AM
To: 'Heaton, Mark (MNRF)' <mark.heaton@ontario.ca>; Johnston, David P. (MNRF) <David.P.Johnston@ontario.ca>
Cc: Brouwers, Aaron <aaron.brouwers@amec.com>
Subject: Belfountain Conservation Area Dam and Headpond Class EA

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We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Heaton, Mark (MNRF) [mailto:mark.heaton@ontario.ca]
Sent: September 21, 2015 9:55 AM
To: Rundle, Laura

Cc: Johnston, David P. (MNRF)

Subject: FW: Belfountain Complex Stakeholder SAC_minutes and presentation

Hello Laura,

Please find attached (and below in email) some information to assist the EA process for the Belfountain Head Pond Study.

Regards,

Mark Heaton
OMNRF Aurora

From: Johnston, David P. (MNRF)

Sent: September 21, 2015 9:05 AM

To: Heaton, Mark (MNRF)

Cc: Almond, John (MNRF); Burkart, Jackie (MNRF); Kowalyk, Bohdan (MNRF)

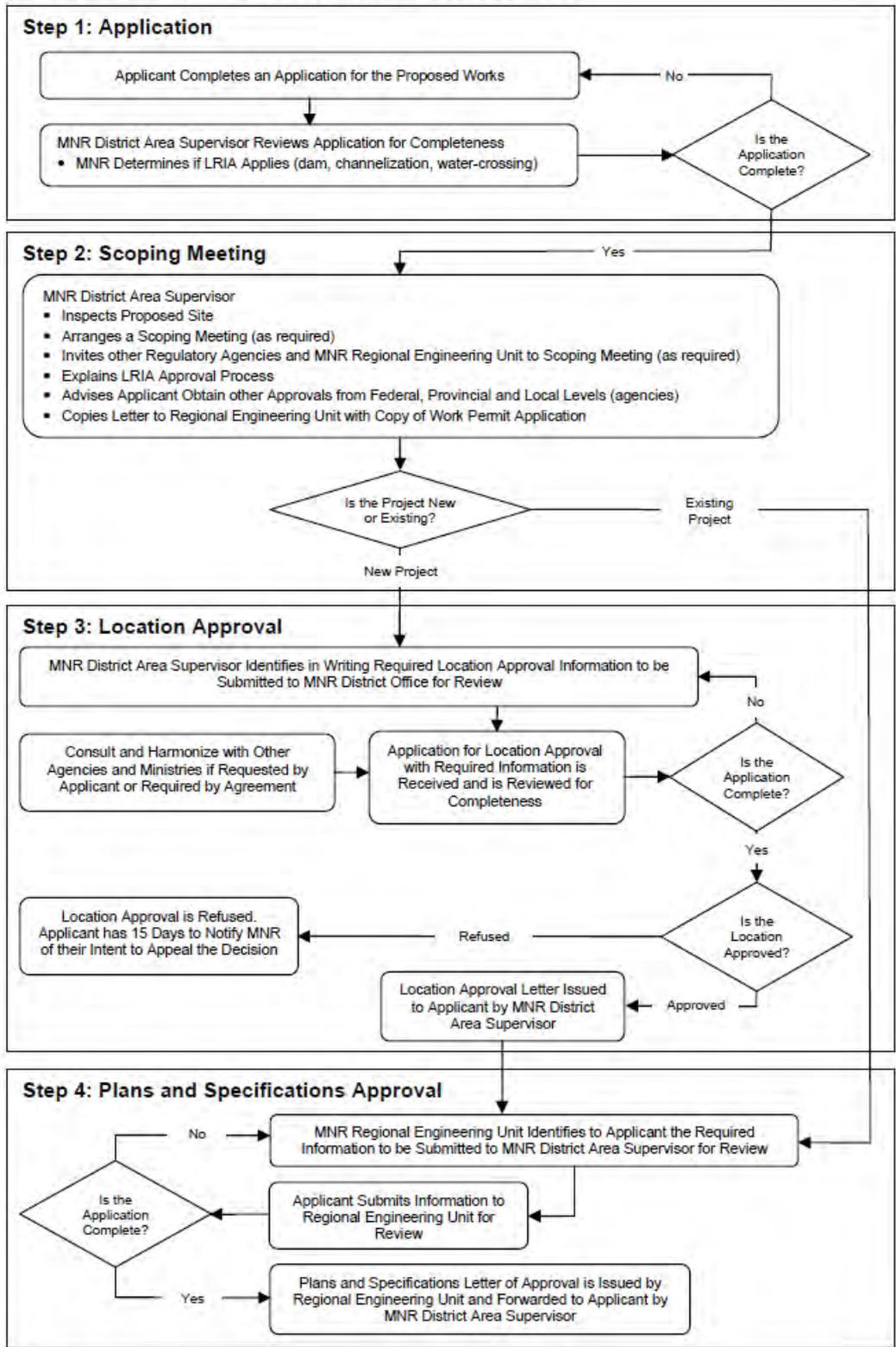
Subject: RE: Belfountain Complex Stakeholder SAC_minutes and presentation

Good Morning Mark.

I do not see any clear recommendations within the report that would suggest that remedial measures are being contemplated (I also went to the CVC website and reviewed the EA). As there is no specific definitive remediation measures being proposed at this time, there is nothing for us to comment directly upon, based on the information provided. Once there is a clear indication of the proposed "works", we can identify the criteria within the guidelines and advise (typically at a scoping meeting). It would appear that they may be proposing installation of rock anchors to improve stability [they have done this with some of their other structures in Guelph District], however until such time that we receive a formal application, we can provide some "high-level" direction.

Typically, once we receive a formal application, the following approval process would apply.

Figure 1 – Application Review and Approval Process



From an EA perspective, I would suggest that all text and assessment should refer to the 2011 LRIA Technical Bulletins and Best Management Practices (not the ODSG – Ontario Dam Safety Guidelines). The transition period for applications from the previous guidelines ended April 1st,

2013 (end of the "grace period"). As the report provided is dated December 2013, the 2011 Guidelines should have been applied. If a formal submission / application was now made under the LRIA, the submission would be assessed against the 2011 criteria. I have attached the current guidelines and BMP's for your use and distribution to the CVC.

I would suggest that the key points to be communicated at this point are, depending on the type of remedial works being considered, an LRIA approval may be required; and that any works proposed must meet the current 2011 LRIA Technical Guidelines.

Should you have any further questions, please do not hesitate to contact me.

Thanks,
Dave J.

David P. Johnston - Engineering Technologist
Ministry of Natural Resources and Forestry
Southern Region Engineering Unit
300 Water Street, 4th Floor South Tower
Peterborough, Ontario
K9J 8M5
t. (705) 755-3237
f. (705) 755-3233

-----Original Message-----

From: Heaton, Mark (MNRF)
Sent: September 18, 2015 7:53 AM
To: Johnston, David P. (MNRF)
Cc: Almond, John (MNRF); Burkart, Jackie (MNRF)
Subject: FW: Belfountain Complex Stakeholder SAC_minutes and presentation

Hello David,

Background geotechnical report attached for an EA that is being undertaken by Credit Valley Conservation. Dam involved is 7.5m high. Fisheries interests with barrier mitigation, coarse sediment transport and thermal effects

Need your advice on incorporating LRIA interests.

Regards

Mark Heaton
Fish and Wildlife Biologist
OMNRF Aurora District
(905) 713 7406 office
(416) 993 1295 mobile

From: Rundle, Laura [LRundle@creditvalleyca.ca]
Sent: Thursday, September 17, 2015 7:09 PM

To: Heaton, Mark (MNRF)
Cc: 'Brouwers, Aaron'
Subject: RE: Belfountain Complex Stakeholder SAC_minutes and presentation

Sending them one at a time so they don't bounce back...

-----Original Message-----

From: Rundle, Laura
Sent: September 17, 2015 7:08 PM
To: 'Heaton, Mark (MNRF)'
Cc: 'Brouwers, Aaron'
Subject: RE: Belfountain Complex Stakeholder SAC_minutes and presentation

Hi Mark,

No problem. We are hosting a public consultation session on the 22nd (6pm - 9pm at the Caledon Ski Club), if you are interested in attending.

Attached are two reports:

- 1) The Baseline Inventory Report for the EA (Aaron, can you please advise if additional info would be useful to Mark?)
- 2) 2013 Geotechnical Assessment of the Dam

Please let me know if you require any additional information.

Thank you,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

-----Original Message-----

From: Heaton, Mark (MNRF) [mailto:mark.heaton@ontario.ca]
Sent: September 17, 2015 6:59 PM
To: Rundle, Laura
Subject: RE: Belfountain Complex Stakeholder SAC_minutes and presentation

Hello Laura,

Thank you for the information. Sorry I couldn't make the meeting on Sept 3rd.

Hoping we can discuss this at the next agency meeting scheduled for Sept 28th.

In the meantime, could you provide the structural assessment for the dam - we will need our regional engineering unit to review the document.

Regards

Mark Heaton
Fish and Wildlife Biologist
OMNRF Aurora District
(905) 713 7406 office
(416) 993 1295 mobile

From: Rundle, Laura [LRundle@creditvalleyca.ca]
Sent: Thursday, September 17, 2015 3:32 PM
To: 'briangreck@rogers.com'; 'Carol Sheppard'; 'Dave Dyce'; Orr, David; 'drarthurs@sympatico.ca'; 'Judy Mabee'; 'Kendrick Doll'; 'mewaschuk@live.ca'; 'michele@thehillsofheadwaters.com'; Toutant, Mike (MNRF); 'rjasiuk@sympatico.ca'; 'Sally Drummond'; 'sarah.bohan@belfountainheritage.com'; 'Susan Robertson'; 'Tim Manley'; 'Tina Fernandes'; 'vjudge@rogers.com'; Dela Cruz, Gino; Brock, Liz; Verge, Shawn; 'Maggie.Zhang@heritagetrust.on.ca'; Heaton, Mark (MNRF); 'Stephen Goyeche'; Grbinicek, Lisa (MNRF); Head, Mark; 'sjcopeland@rogers.com'; 'president@belfountain.ca'; Baldin, Eric
Cc: Thompson, Mark; Burgess, Kate; Marques, Joana
Subject: Belfountain Complex Stakeholder SAC_minutes and presentation

Good afternoon everyone,

I hope you are all enjoying this beautiful weather. Attached, please find the following documents:

- * Notes from our meeting on September 3rd - for those of you that were present at the meeting, please let me know if there are any updates that are required.
- * PowerPoint presentation that was provided at the September 3rd meeting
- * Advertisement for our public consultation session that will be held next week (Tuesday, September 3rd, from 6pm - 9pm at the Caledon Ski Club), as well as additional opportunities that are scheduled for September and October (September 26, 27, October 2 and October 3 in Belfountain Conservation Area)

We encourage you to pass the invitation to the public consultation session along to any of your contacts who may be interested in attending.

As mentioned at the last meeting, I will be circulating additional information regarding the concept plans, as well as a questionnaire, for your input next week.

Our next meeting is tentatively scheduled for Thursday, November 5th.

Thank you & Kind Regards,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca<mailto:lrundle@creditvalleyca.ca> |
creditvalleyca.ca<http://creditvalleyca.ca>

From: Rundle, Laura

Sent: August 31, 2015 3:58 PM

To: 'briangreck@rogers.com'; 'Carol Sheppard'; 'Dave Dyce'; Orr, David; 'drarthurs@sympatico.ca'; 'Judy Mabee'; 'Kendrick Doll'; 'mewaschuk@live.ca'; 'michele@thehillsofheadwaters.com'; 'mike.toutant@ontario.ca'; 'rjasiuk@sympatico.ca'; 'Sally Drummond'; 'sarah.bohan@belfountainheritage.com'; 'Susan Robertson'; 'Tim Manley'; 'Tina Fernandes'; 'vjjudge@rogers.com'; Dela Cruz, Gino; Brock, Liz; Wong, Janet; Verge, Shawn; 'Maggie.Zhang@heritagetrust.on.ca'

Cc: Thompson, Mark; Burgess, Kate; Marques, Joana

Subject: Belfountain Complex Stakeholder SAC Meeting_September 3rd

Good afternoon,

Please find the agenda for Thursday's meeting attached. While the focus of the meeting is on the concept plans for Belfountain Conservation Area, we will also be discussing the Baseline Inventory Report for the Dam and Headpond EA.

For those of you unable to attend the meeting, please note our upcoming public consultation dates:

* September 22nd 2015: Public Information Centre for the Environmental Assessment and Management Plan

- o Includes a presentation and opportunity to talk with staff and consultants working on the project
- o Opportunity to review poster boards and provide input
- o 6pm - 9pm at the Caledon Ski Club

* September 26th, 27th, October 2nd and 3rd: Outreach and Consultation in the Conservation Area

- o Visitors to the conservation area and members of the community will be invited to discuss both projects with CVC staff
- o Opportunity to provide input
- o 10am - 4pm in Belfountain Conservation Area

Looking forward to seeing you all on Thursday, September 3rd.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca<mailto:lrundle@creditvalleyca.ca> |

creditvalleyca.ca<http://creditvalleyca.ca>

From: Rundle, Laura
Sent: August 17, 2015 3:32 PM
To: 'briangreck@rogers.com'; 'Carol Sheppard'; 'Dave Dyce'; Orr, David; 'drarthurs@sympatico.ca'; 'Judy Mabee'; 'Kendrick Doll'; 'mewaschuk@live.ca'; 'michele@thehillsofheadwaters.com'; 'mike.toutant@ontario.ca'; 'rjasiuk@sympatico.ca'; 'Sally Drummond'; 'sarah.bohan@belfountainheritage.com'; 'Susan Robertson'; 'Tim Manley'; 'Tina Fernandes'; 'vjudge@rogers.com'; Dela Cruz, Gino; Thompson, Mark; Brock, Liz; Wong, Janet; Verge, Shawn; 'Maggie.Zhang@heritagetrust.on.ca'
Subject: Belfountain Complex Stakeholder SAC Meeting_September 3rd

Good afternoon,

I hope that this email finds you well.

This email is to confirm our next SAC meeting on Thursday, September 3rd. We will be discussing the concept plans for Belfountain Conservation Area as well as an update for the Environmental Assessment for the dam and headpond. I will forward an agenda and some materials for your review early next week.

I will be sending out an Outlook invitation as well. Please disregard if you do not use an Outlook calendar.

Our meeting will tentatively take place:

Date: Thursday, September 3rd

Time: 6:00pm - 8:30pm

Location: Terra Cotta Conservation Area (Watershed Learning Centre - <https://www.google.ca/maps?q=43.721709,-79.959102>)

Please feel free to contact me if you have any questions.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca <<mailto:lrundle@creditvalleyca.ca>> |

creditvalleyca.ca <<http://creditvalleyca.ca>>

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The information contained in this Credit Valley Conservation electronic message is directed in confidence solely to the person(s) named above and may not be otherwise distributed, copied or disclosed including

attachments. The message may contain information that is privileged, confidential and exempt from disclosure under the Municipal Freedom of Information and Protection and Privacy Act and by the Personal Information Protection Electronic Documents Act. The use of such personal information except in compliance with the Acts, is strictly prohibited. If you have received this message in error, please notify the sender immediately advising of the error and delete the message without making a copy. Thank you.

Dearlove, Heather

From: Brouwers, Aaron
Sent: December-09-15 9:04 AM
To: Dearlove, Heather
Subject: FW: Belfountain Conservation Area Dam and Headpond Class EA

Follow Up Flag: Follow up
Flag Status: Flagged

FYI

From: Rundle, Laura [mailto:LRundle@creditvalleyca.ca]
Sent: December-09-15 8:53 AM
To: 'Lisa Grbinicek (MNRF)' <lisa.grbinicek@ontario.ca>
Cc: Brouwers, Aaron <aaron.brouwers@amec.com>
Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Lisa,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The Niagara Escarpment Commission has been identified as having a key role in the review and approval for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory
Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

Brouwers, Aaron

From: Heaton, Mark (MNRF) <mark.heaton@ontario.ca>
Sent: January-25-16 1:42 PM
To: Rundle, Laura
Cc: Johnston, David P. (MNRF); Mott, Ken (MNRF)
Subject: RE: Belfountain Conservation Area Dam and Headpond Class EA
Attachments: IMG_20160122_082901.jpg

Hello Laura

Technical Reports 1 and 2 have been reviewed by Aurora District and the Southern Region Engineering Unit of MNRF. The following comments are provided to assist you in this EA process:

Technical Report #1

1) Baseline inventory. There is a need to confirm vertical height of dam structure in this section as there appears to be some confusion as to the actual location of the base of concrete. CVC dam database documents structure as >7.0m. Refer to attached image showing exposed concrete at base.

2) Aquatic Ecology, page 34. Rainbow trout are not stocked either upstream or downstream of the Belfountain dam. To clarify, on very rare occasions, adult migratory rainbow from Lake Ontario have been known to navigate past Norval Dam under high flow conditions and successfully reproduce in the West Credit. This has been confirmed once in the past 5 years of Norval Fishway operation. Juveniles leave the river at 1 to 2 years of age. 2 yr old juveniles were detected in 2015 electrofishing surveys below the dam. Occasionally, domestic rainbow trout are found above and below the Belfountain Dam. These are the result of either accidental release or intentional illegal release from private properties upstream of the dam.

3) Background information page 35. Temperature monitoring conducted to support previous Class EA detected an increase between inflow of headpond and inflow of next online pond (Stonecutters). The temperature increase is somewhat masked by the groundwater input occurring adjacent to the Belfountain headpond and dam. Removing the headpond would result in substantial summer cooling of the river for a considerable distance downstream towards the Forks. Removing the headpond and reducing the vertical drop would also decrease winter heat loss from the river and reduce instream frazzle ice.

4) Opportunities and Constraints, page 36. A fishway at this site is not required to address passage of species found downstream. Priority is placed on maintaining a partition between non-native brown trout and the native brook trout found upstream. If feasible, reducing the vertical jump height to 3m (water surfaces) may allow for future passage of adult Atlantic salmon as this is a priority species for restoration in the Credit. Reducing vertical height will also reduce mortality of juvenile Atlantic salmon, brook trout and other species as they move downstream in the river.

5) Terrestrial Ecology, page 38. Coyote is missing from the mammals list. Headpond and Dam study area fall within ESA regulated habitat of Jefferson Salamander. Milk Snake is found within the study area.

6) Opportunities and Constraints. Opportunities are not limited. Terrestrial habitat restoration and public education (interpretative signage) is encouraged where trails are being relocated or where open water pond area is being reduced.

7) Summary page 52. >7.0m vertical drop of dam likely causes some mortality of fish species moving downstream as they hit stone ledges. Headpond and dam have both summer and winter temperature impacts on the river. Fishway is not encouraged. Any works at the dam and headpond will require review and approval under the Lakes and Rivers Improvement Act and/or Public Lands Act.

Technical Report #2

Engineering comments:

- 1) Any work on the dam will require an approval from MNRF under the Lakes and Rivers Improvement Act (LRIA).
- 2) Some Alternatives identify modifications that will impact the upstream and/or downstream bed of the watercourse. It is anticipated that the bed of the watercourse is owned by the Crown and any works may trigger the Public Lands Act (PLA).
- 3) Alternative D4H6 identifies an "off-line" headpond. It is not foreseen how this headpond could be considered "off-line".
- 4) It is anticipated that the D4H6 option could pose significant issues related to both thermal and sediment impacts on the downstream watercourse and fisheries.

In summary, MNRF would support concept D4H5 with lowering the existing spillway greater than 1.0m. This option would fulfil criteria associated with liability, flood risk, public safety, natural stream function, watercourse thermal regime, fisheries and riparian habitat. Fish passage for adult Atlantic salmon would be discussed further at the detailed design stage.

Regards

Mark Heaton
Fish and Wildlife Biologist
OMNRF Aurora District
(905) 713 7406 office
(416) 993 1295 mobile

From: Rundle, Laura [mailto:LRundle@creditvalleyca.ca]
Sent: December 9, 2015 8:09 AM
To: Heaton, Mark (MNRF); Johnston, David P. (MNRF)
Cc: 'Brouwers, Aaron'
Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Mark and David,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The MNRF has a key review and approval role for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory
Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Dearlove, Heather

Subject: FW: NEC Comments_Belfountain EA

From: Grbinicek, Lisa (MNRF) [<mailto:lisa.grbinicek@ontario.ca>]

Sent: March 16, 2016 4:20 PM

To: Rundle, Laura

Subject: RE: Belfountain EA

Hi Laura,

Thanks for the follow up. I've reviewed the materials and slide deck from the last meeting detailing the preferred alternative. I do think I would benefit from a further discussion if you have some availability next week (Tuesday?).

Specifically, I would like to better understand the backfilling component of the project in more detail, if you have that level of detail to provide, and discuss potential SAR habitat issues.

Some additional matters to discuss include:

With respect to your January 12, 2015 memo on the Niagara Escarpment Plan Interpretation – Part 4.c. states that only one of the alternative proposes “new construction”. This is not a correct interpretation. All of the proposed alternatives you have identified (including the preferred alternative), would be considered development, which is defined as a change in use of any land building or structure (in the NEPDA), and so NEP Part 2.8.1 respecting the prohibition of development in the habitat of endangered species would be applicable. I still require confirmation from the MNRF with respect to whether the headpond is considered habitat for American Eel.

Additionally, we will have to further discuss the preferred alternative in consideration of the identified habitat of JESA (has MNRF indicated whether an ESA Permit would be required?). It is likely that an Amendment to the NEP will be required, as we have previously discussed. As you are aware there the Co-ordinated Provincial Land Use Plan Review is underway which may result in a review of policies respecting SAR habitat in the NEP, we should discuss timing of the

Once the EA is complete, the Management Plan will need to be amended to include details of the preferred alternative, and the NEP amendment would be required in order for the proposals to be included in the Management Plan (as only development not in conflict with the NEP may be included in the Management Plan). The amendment to the NEP would be required prior to the Management Plan being finalized.

How would 10am on Tuesday March 22 work for you to discuss these matters further?

Thanks,

Lisa

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: March 9, 2016 3:24 PM
To: Grbinicek, Lisa (MNRF)
Subject: RE: Belfountain EA

Good afternoon Lisa,

I just wanted to touch base with you about the Class EA for the Belfountain Dam and Headpond. I understand that you are busy in your new role, but I wanted to provide you with a brief update to let you know where we are in the Class EA process.

CVC has identified a preferred alternative for the project (please see the attached factsheet for visuals): it involves lowering the dam by +/- 1m, backfilling the existing headpond and naturalizing the channel. We feel that this alternative best meets the objectives that were initially laid out for the project. We will be going out to public consultation on Thursday, March 24th, 2016 to present the preferred alternative.

I would be more than happy to set-up a conference call if you would like to discuss the Class EA in detail.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Rundle, Laura
Sent: February 12, 2016 3:26 PM
To: 'Grbinicek, Lisa (MNRF)'
Subject: RE: Belfountain EA

Thanks for the update Lisa.

Congratulations on your new role – I can understand how busy you must be and appreciate being updated on your timelines.

Please note that I am out of the office from Feb 17 – 23 (I am in the office next Tuesday). If you could cc Aaron Brouwers (aaron.brouwers@amecfw.com) on your comments, it would be much appreciated as well.

Thank you and have a nice family day weekend,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Grbinicek, Lisa (MNRF) [<mailto:lisa.grbinicek@ontario.ca>]
Sent: February 11, 2016 9:25 AM
To: Rundle, Laura
Subject: Belfountain EA

Hi Laura,

Just touching base I had told you on our last call that I had anticipated being able to provide comments/discuss Belfountain early this week, unfortunately I have been pulled away on other things

again and am behind on this, but still hope to turn my attention to it tomorrow and will touch base next Tuesday with you. I think I mentioned I am acting manager in Ken's retirement right now, and instead of passing this one to yet another staff member I am trying to maintain carriage of the file.

Thanks for your patience with me on this one!

Lisa

Lisa Grbinicek, MCIP, RPP
Acting Manager

Niagara Escarpment Commission
232 Guelph Street • Georgetown • Ontario • L7G 4B1

tel: 905.877.2512 • Fax: 905.873.7452 • www.escarpment.org

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May 2, 2016
Our File: TP114113-12



Ministry of Natural Resources and Forestry
Aurora District
50 Bloomington Road West
Aurora, ON L4G 3G8

Attention: Mark Heaton, Fish and Wildlife Biologist

Dear Sir:

**Re: Response to MNRF Aurora District and Southern Region Engineering
(January 25, 2016 Comments);
Belfountain Dam and Headpond Class Environmental Assessment, CVC**

The Project Team wishes to thank MNRF staff for reviewing and providing comments (ref. Email Heaton-Rundle, January 25, 2016, attached) on *Technical Report 1 Baseline Inventory* (August 2015) and *Technical Report 2 Management Alternatives* (December 2015). At this time, the Project Team requests clarification on a few matters to the Preferred Alternative as outlined at the end of this letter.

Responses to comments are provided in the following (comment numbering has been maintained per the original):

Technical Report #1

1. Based on the most current available information (Geotechnical Investigation and Dam Safety Report, Belfountain Dam, Terraprobe, December 2013), the height of the concrete structure is 4.8 m +/- based on a crest elevation of 359.3 m and a founding bedrock elevation of 354.5 m +/- . In the centre of the channel on the downstream side, the overall height of the waterfall is estimated to be about 7 m +/- due to an additional 2.2 m +/- of exposed and eroded bedrock above the invert of the channel (ref. attached photos). The object highlighted in the historical photo and referenced in MNRF Comment 1 does not appear to be part of the main dam embankment structure.
2. The reference to stocking of Rainbow trout upstream of Belfountain Dam will be removed in the Draft ESR.
3. The Draft ESR will be updated with reference to the temperature monitoring undertaken by MNRF in 2001. Nevertheless, the thermal impact of the existing headpond has been recognized in Technical Report #1, and the potential water temperature benefits resulting from removal of the headpond have been identified as part of the impact assessment in Technical Report #2.

Continued...
MNRF
May 2, 2016

4. Reducing the vertical height of the dam to facilitate jump height for Atlantic salmon is recognized as an alternative in Technical Report #2, however ultimately this alternative has been screened due to, among other reasons, undesirable impacts on built heritage.
5. Coyote and Milk snake will be added to species inventory lists in the Draft ESR. A discussion on Jefferson salamander habitat within the Study Area is found in Section 3.6.2.2.
6. The opportunity for interpretive signage will be recognized as part of the implementation options in Technical Report #3 and the Draft ESR.
7. Noted, thank you.

Technical Report #2

1. Noted. Some clarification is requested with respect to how MNRF would interpret Alternative D4H5 under LRIA; this is discussed further at the end of this letter.
2. Noted. It is understood that a permit under the Public Lands Act (PLA) would be required and would be administered as part of a permit application under the Lakes and Rivers Improvement Act. It is understood that there are no specific constraints with respect to approval of the short-listed alternatives under the PLA. **We request MNRF staff to confirm this understanding?**
3. Alternative D4H6 proposes a headpond parallel to a new channel. An inlet structure would draw a portion of flow from the channel into the headpond, while the majority would bypass the headpond in the channel. For the purpose of this study, this has been referred to as 'off-line'. The distinction between what is described here as "offline", and a pond that is fed by a source external to the West Credit River main branch (i.e. a smaller local tributary or groundwater), but that outlets to the river, is recognized.
4. Relative to existing conditions, Alternative D4H6 proposes a smaller headpond surface area (less thermal impact), with the majority of flow conveyed by the proposed channel (i.e. improved sediment transport), therefore Alternative D4H6 is considered to have positive impacts on the thermal regime and sediment transport in the downstream watercourse. It is however recognized that the positive impacts would not be as great as for Alternative D4H5, which does not include a headpond.

Preferred Alternative

As you are aware, the Preferred Alternative has been selected as *Alternative D4H5 Lower the spillway and backfill the headpond and construct a channel*. We are pleased that this alternative is generally supported by MNRF staff, however we note that minimizing the lowering of the spillway is a priority for CVC from a cultural and built heritage perspective, and as such the spillway has been proposed to be lowered 1 m +/-.

At this time, the Project Team would like to request clarification on the following related matters:

1. Under the Preferred Alternative, the existing Belfountain Dam will no longer impound water and as such it is understood that it would not be considered a dam, per the 2011 Technical Bulletins issued under the LRIA (*Dam: For the purpose of the administration of the LRIA*,

Continued...
MNRF
May 2, 2016

a dam is defined as a structure that is constructed which holds back water in a river, lake, pond, or stream to raise the water level, create a reservoir to control flooding or divert the flow of water). The structure will also not meet the definition of a weir (*Weir: Means a structure in a watercourse intended to raise the water level to partially or totally divert its flow*). The structure will most closely meet the definition of a retaining wall (*Retaining Wall: A wall built to hold back earth along a river*). With this understanding, the detailed design of the Preferred Alternative will ultimately require approval as a 'Channelization' per Section 2.1.3 and Table 5 of the LRIA Administration Guide which states that "Approval is required where revetments, embankments or retaining walls are to be located within, or will encroach on, a river channel including into and out of a lake". Could MNRF staff confirm or clarify the understanding described above? Would an Operations, Maintenance, Safety and Surveillance Manual and Emergency Preparedness Plan be required for the new structure?

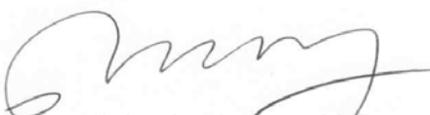
2. Based on Item 1 above, decommissioning of the existing dam is implied. Given that the existing dam and headpond do not provide measureable attenuation of flood flows or alteration of base flow, there is no significant impact to the downstream hydrologic regime expected. Accordingly, management of sediment is expected to be the most significant design consideration for dam decommissioning. Are there any other special considerations that should be made for dam decommissioning specifically as they related to the LRIA?
3. The Study Area is within Jefferson salamander habitat, an endangered species. However the existing headpond itself (the primary area of disturbance for the Preferred Alternative) is not considered functional habitat, and impacts to adjacent habitat units are expected to be minimal and temporary, with the project ultimately providing an overall net benefit to Jefferson salamander habitat. Based on the foregoing, at a meeting with MNRF staff on April 25, 2016 at CVC Head Office, staff confirmed that MNRF will issue a Letter of Advice for the Preferred Alternative, and that an Endangered Species Act Benefit Permit will not be required. This approach would apply to both Jefferson salamander and American eel.

We trust the responses herein meet with the approval of MNRF staff and look forward to ongoing consultation with staff. We respectfully request staff provide clarification on the questions in the final section of the letter by May 18, 2016. If you have any questions please contact the undersigned.

Yours truly,

Amec Foster Wheeler Environment & Infrastructure
a division of Amec Foster Wheeler Americas Limited


Per: Aaron Brouwers, P.Eng.
Senior Engineer


Per: Ron Scheckenberger, M.Eng., P.Eng.
Principal Consultant

AB/ab/cc

c.c. Laura Rundle, CVC
David Johnstone, MNRF

Paul Heeney, MNRF
Ken Mott, MNRF

KEY MAP



- REFERENCE:**
1. CIVIC Dam Safety Review "Belfountain Dam General Arrangement Plan and Sections", Project E00035401, Figure B0-2.1, by Kohn Crippen, Dated March 2007
 2. Belfountain Dam "Sluiceway Gate" by Demetco Limited, Project D8604, Drawing S1, Dated August 1999

- NOTES:**
1. Dashed lines indicate inferred boundary transitions with no direct measurements
 2. Borehole and threadbar diameters are not to scale
 3. Measurements are rounded to the nearest 50mm and are based on the references noted and appropriate field measurements

LEGEND:

- Borehole Location
- Overburden
- Bedrock
- Fine Aggregate Concrete
- Coarse Aggregate Concrete And Cobbles

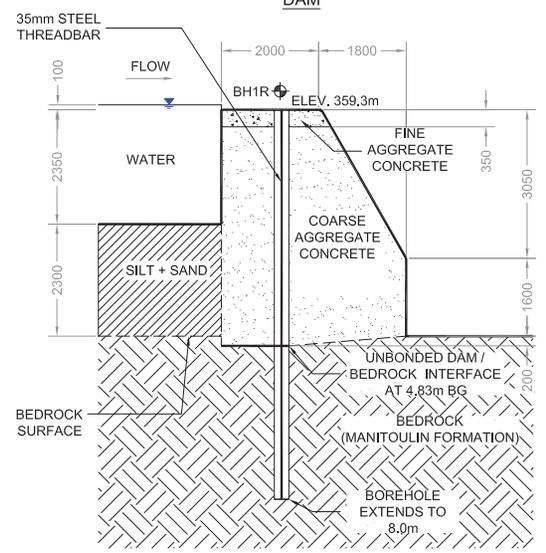
PROJECT TITLE:
 Geotechnical Investigation Belfountain Dam, Belfountain, Ontario

SITE LOCATION:
 Belfountain Conservation Area
 Belfountain, Ontario

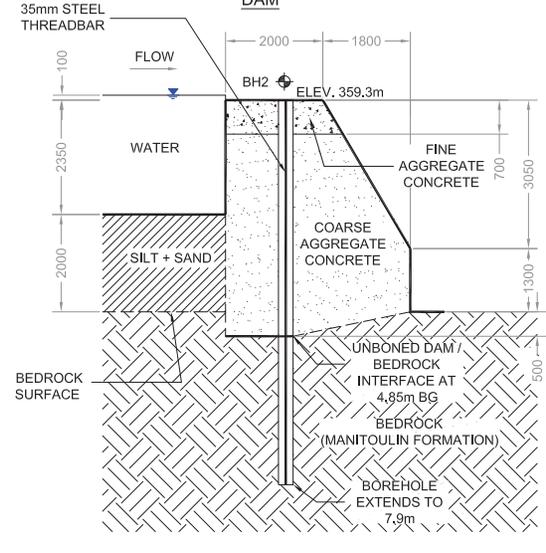
FIGURE TITLE:
 Dam, Sluiceway and Retaining Wall Cross Sections

REV NO.:	FILE NO.:
0	9-09-4030-4
SCALE:	FIGURE NO.:
1 : 100	4
DATE:	
May 23, 2013	

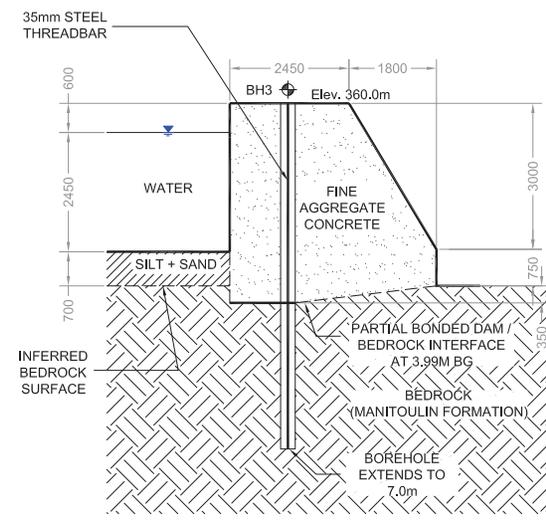
CROSS-SECTION A-A' DAM



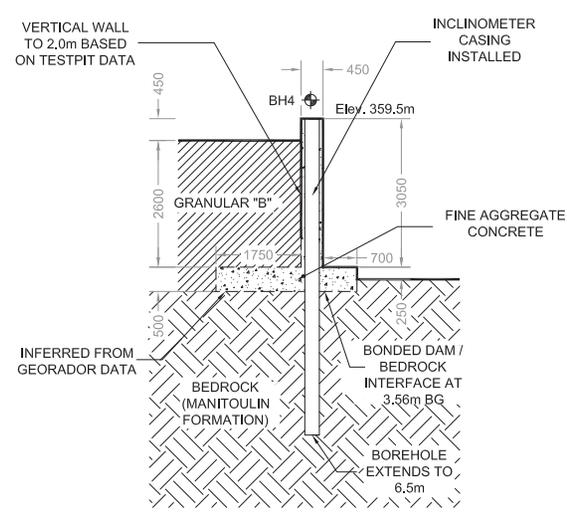
CROSS-SECTION B-B' DAM



CROSS-SECTION C-C' SLUICEWAY



CROSS-SECTION D-D' RETAINING WALL



W:\CS\Current\1 - Project Files\13-24-2013\20130520\Belfountain Dam\B0-2.1.dwg, User: kgriffin, Date: 2013-05-23 10:44:44 AM

Belfountain Dam Photographs



PHOTO #3: View of exposed dam structure, pipe below dam and dam / bedrock interface



PHOTO #4: View of south side of exposed dam structure and south dam abutment



Dearlove, Heather

Subject: FW: Belfountain Dam and Headpond Class Environmental

From: Rundle, Laura [<mailto:lrundle@creditvalleyca.ca>]

Sent: July-20-16 8:53 AM

To: Mark Heaton (mark.heaton@ontario.ca) <mark.heaton@ontario.ca>

Cc: david.johnston@mnr.gov.on.ca (david.johnston@mnr.gov.on.ca) <david.johnston@mnr.gov.on.ca>; ken.mott@ontario.ca; Brouwers, Aaron <aaron.brouwers@amec.com>

Subject: RE: Belfountain Dam and Headpond Class Environmental

Good morning Mark,

I hope that this email finds you well.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

As you are aware, a preferred alternative was selected, which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by **Monday, August 16th**.

The full report and appendices are available on our website; however, the main body of the report and Appendix E are the primary components for review. They are located here:

- Main Report: http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3-Implementation-Options-and-Assessment-of-Environmental-Effects-Report_DRAFT_July-2016.pdf
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_July2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your continued support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

From: Campbell, Candice [<mailto:candice.campbell@amecfw.com>]
Sent: May 2, 2016 11:52 AM
To: Mark Heaton (mark.heaton@ontario.ca)
Cc: Rundle, Laura; david.johnston@mnr.gov.on.ca (david.johnston@mnr.gov.on.ca); paul.heeney@ontario.ca; ken.mott@ontario.ca; Brouwers, Aaron; Scheckenberger, Ron
Subject: Belfountain Dam and Headpond Class Environmental

Good morning,

Please find attached the response to MNRF Aurora District and Southern Region Engineering Comments (January 25, 2016).

Thank you,

Candice Campbell

Administrative Assistant, Amec Foster Wheeler
3215 North Service Rd, Burlington, ON L7N 3G2
T 905-335-2353
candice.campbell@amecfw.com amecfw.com



Please consider the environment before printing..



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Acts, is strictly prohibited. If you have received this message in error, please notify the sender immediately advising of the error and delete the message without making a copy. Thank you

Dearlove, Heather

From: Brouwers, Aaron
Sent: July-20-16 4:05 PM
To: Dearlove, Heather
Subject: FW: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Follow Up Flag: Follow up
Flag Status: Flagged

For the file

From: Rundle, Laura [mailto:lrundle@creditvalleyca.ca]
Sent: July-20-16 9:17 AM
To: Grbinicek, Lisa (MNRF) <lisa.grbinicek@ontario.ca>
Cc: Brouwers, Aaron <aaron.brouwers@amec.com>
Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good morning Lisa,

I hope that this email finds you well.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

As you are aware, a preferred alternative was selected which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by **Tuesday, August 16th**.

The full report and appendices are available on our website; however, the main body of the report and Appendix E are the primary components for review. They are located here:

- Main Report: http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3-Implementation-Options-and-Assessment-of-Environmental-Effects-Report_DRAFT_July-2016.pdf
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_July2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your continued support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

November 22, 2016

Credit Valley Conservation
1255 Old Derry Road
Mississauga, Ontario
L5A 4R6

Attn: Laura Rundle, Conservation Lands Planner

**Re: Belfountain Dam and Headpond Environmental Assessment
Credit Valley Conservation
Town of Caledon, Regional Municipality of Peel**

Dear Ms. Rundle,

The Ministry of Natural Resources and Forestry (MNRF) has reviewed the information received from your consultant AMECFW on November 14, 2016 in support of the above noted study.

A number of our previous editorial comments of September 22, 2016 have been addressed. Reply information for items 3 and 5 have been reviewed. MNRF remains concerned with the proposed preferred alternative as not being in balance with study objectives.

MNRF interests in this study are associated with dam safety (Lakes and Rivers Improvement Act), fisheries management, Crown Land management (Public Lands Act) and species at risk (Endangered Species Act). Option 1 favours perceived cultural heritage and recreational interests in relation to MNRF interests. In our opinion, Option 2 has a more balanced compromise position in relation to study objectives and reasonably satisfies broader public interests by:

1. Minimizing occupation of Crown lands with engineered structures (no upstream grade control structure required)
2. Restoring natural channel functions and water quality downstream of the structure
3. Further reducing the elevation of water and sediment currently stored behind the dam

It is important to remember that the Environmental Study Report drafted in October 2002 recommended that only a 2.0m waterfall remain as part of the recommended solution. This assessment was completed with similar evaluation criteria at the time.

Accordingly, MNRF would support Option 2 in moving forward with future work permit applications under Public Lands Act and Lakes and Rivers Improvement Act.

In response to your clarification question in the AMECFW memo of May 2, 2016, it should be noted that the MNRF Regional Engineer (SREU) has the delegated responsibility on behalf of the Crown to identify if the structure or actions / undertakings require approval under the LRIA

(i.e. not the proponent). The CVC is cautioned that any course of action related to the structure will require submission of an application to the MNR District office under the LRIA. These actions may include, but not limited to, changes in operations, alterations, modifications, improvements, removal or decommissioning. Once a complete application is provided to the Southern Region Engineering Unit (SREU) by the District, the SREU will comment on the applicability of the Lakes and Rivers Improvement Act, relative to the actual proposal.

If you have any concerns or questions please contact me directly at 905-713-7406 or at mark.heaton@ontario.ca .

Sincerely,



Mark Heaton,
Fish and Wildlife Biologist
Aurora District

CC NEC

Dearlove, Heather

Subject: FW: CVC Belfountain Dam and Headpond CO Class EA - ESR Filing and MNRF Comment Response

Attachments: LETTER - Belfountain Dam and Headpond EA - ESR Filing & MNRF Comments.pdf

From: DeJager, Jesse [<mailto:jdejager@creditvalleyca.ca>]
Sent: Friday, February 10, 2017 3:52 PM
To: Heaton, Mark (MNRF) <mark.heaton@ontario.ca>
Cc: Martin-Downs, Deborah <dmartindowns@creditvalleyca.ca>; Payne, Jeff <jpayne@creditvalleyca.ca>; Thompson, Mark <mthompson@creditvalleyca.ca>; Baldin, Eric <ebaldin@creditvalleyca.ca>; Scheckenberger, Ron <Ron.Scheckenberger@amecfw.com>; Brouwers, Aaron <Aaron.Brouwers@amecfw.com>; Dearlove, Heather <Heather.Dearlove@amecfw.com>; Stephen, Mark (MNRF) <mark.stephen@ontario.ca>; Felix, Peter (MNRF) <Peter.Felix@ontario.ca>; Hislop, Chris (MNRF) <Chris.Hislop@ontario.ca>; Johnston, David P. (MNRF) <David.P.Johnston@ontario.ca>; Heeney, Paul (MNRF) <Paul.Heeney@ontario.ca>; Funnell, Emily (MNRF) <Emily.Funnell@ontario.ca>
Subject: CVC Belfountain Dam and Headpond CO Class EA - ESR Filing and MNRF Comment Response

Hi Mark,

We are currently finalizing the Environmental Study Report (ESR) with the intention to file early next week. I can confirm that your comments, including the November 22nd letter, are included in the ESR and you will also receive the full physical copy to be couriered to Aurora District ATTN: Mark Heaton. The official Notice of Study Completion will be sent out by Tuesday to both MOECC, all agency partners, stakeholders and members of the public who wished to be kept informed, along with the newspaper ads in local distribution.

Further to your November 22nd letter and to other recent comments, please find attached CVC's response to you and MNRF Aurora District related to the EA preferred alternative and ESR.

Thanks,
- Jesse

Jesse de Jager

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 281 | 1.800.668.5557

jesse.dejager@creditvalleyca.ca | creditvalleyca.ca

From: Heaton, Mark (MNRF) [<mailto:mark.heaton@ontario.ca>]
Sent: January 5, 2017 4:54 PM
To: Baldin, Eric; DeJager, Jesse
Cc: Brouwers, Aaron; Stephen, Mark (MNRF); Felix, Peter (MNRF); Hislop, Chris (MNRF); Rundle, Laura; Johnston, David P. (MNRF); Heeney, Paul (MNRF); Funnell, Emily (MNRF)
Subject: RE: Belfountain EA Comments

Hello Jesse and Eric

Please advise as to the proposed timing for filing the ESR for 30 day review.

MNRF will be responding to the ESR with a re-iteration of concerns associated with the recommended implementation option #1.

Thank you

Mark Heaton
OMNRF Aurora

From: Johnston, David P. (MNRF)

Sent: December 9, 2016 11:30 AM

To: Rundle, Laura

Cc: Baldin, Eric; DeJager, Jesse; Brouwers, Aaron; Heaton, Mark (MNRF); Stephen, Mark (MNRF); Felix, Peter (MNRF); Hislop, Chris (MNRF)

Subject: RE: Belfountain EA Comments

Good Morning Laura.

Thank-you for the brief discussion this morning. It was great to speak with you.

To summarize, I have provided comments to the MNRF District office on the EA on behalf of the Regional Engineering office. Those comments were included in an email response to you from Mark Heaton on January-25-16 1:42 PM (attached). We would expect that those comments will be incorporated into the EA document and addressed accordingly.

Clarification related to the assessment of whether the structure would be considered a dam under the LRIA were provided to you in an email, once on Mon 09/21/2015 9:55 AM (attached) and again on Tue 11/22/2016 4:45 PM (see attached). These pieces of correspondence indicate that MNRF Regional Engineering will assess the requirements under the LRIA when an application under the Act is received.

In response to your clarification question in the AMECFW memo of May 2, 2016, it should be noted that the MNRF Regional Engineer (SREU – Southern Region Engineering Unit) has the delegated responsibility on behalf of the Crown to identify if the structure or actions / undertakings require approval under the LRIA (i.e. not the proponent as suggested in the May 2nd memo). The CVC is cautioned that any course of action related to the structure will require submission of an application to the MNRF District office under the LRIA. These actions may include, but not limited to, changes in operations, alterations, modifications, improvements, removal or decommissioning. Once a complete application is provided to the Southern Region Engineering Unit (SREU) by the District, the SREU will comment on the applicability of the Lakes and Rivers Improvement Act, relative to the actual proposal.

In response to your further request for clarification, as identified below, please note that the SREU will continue to provide support to the MNRF Aurora District office related to this matter as, and when requested. To ensure consistency in messaging and direction, should you have any further questions or require further clarification, please ensure that all queries are directed to Mark Heaton at the Aurora District office. Should Mark require engineering input, he will contact me at the Region.

Thanks,
Dave J



David P. Johnston - Engineering Technologist
Ministry of Natural Resources & Forestry
Southern Region Engineering Unit
300 Water Street, 4th Floor South Tower
Peterborough, Ontario
K9J 3C7
t. (705) 755-3237
f. (705) 755-3233

From: Rundle, Laura [<mailto:lrundle@creditvalleyca.ca>]
Sent: December 9, 2016 9:24 AM
To: Johnston, David P. (MNRF)
Cc: Baldin, Eric; DeJager, Jesse; Brouwers, Aaron
Subject: Belfountain EA Comments

Thank you for returning my phone call this morning David.

I will be going on maternity leave shortly and wanted to follow-up via email to ensure that our team has a clear understanding of MNRF's comments moving forward.

In MNRF's letter dated November 22, 2016, regional engineering staff commented that once an application for an LRIA permit has been made by CVC to MNRF's District Office, district staff will request engineering staff from MNRF's Regional Office to comment on the applicability of the LRIA (i.e. whether the structure qualifies as a dam). There is no need for CVC to consult further with regional engineering staff (yourself) until an LRIA permit application has been made.

Additional MNRF comments outlined below are the opinions of the district biologist, and will be discussed further with staff at the district level:

MNRF interests in this study are associated with dam safety (Lakes and Rivers Improvement Act), fisheries management, Crown Land management (Public Lands Act) and species at risk (Endangered Species Act). Option 1 favours perceived cultural heritage and recreational interests in relation to MNRF interests. In our opinion, Option 2 has a more balanced compromise position in relation to study objectives and reasonably satisfies broader public interests by:

1. Minimizing occupation of Crown lands with engineered structures (no upstream grade control structure required)
2. Restoring natural channel functions and water quality downstream of the structure
3. Further reducing the elevation of water and sediment currently stored behind the dam

Please let me know if I have misinterpreted anything.

Thanks again,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

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message in error, please notify the sender immediately advising of the error and delete the message without making a copy. Thank you

February 10th, 2017

Mark Heaton

Fish and Wildlife Biologist

OMNRF Aurora District

(905) 713 7406 | (416) 993 1295

mark.heaton@ontario.ca

RE: Belfountain Dam and Headpond Environmental Assessment – Filing of Environmental Study Report and Ministry of Natural Resources and Forestry Aurora District Comments

Mark,

Currently, CVC is addressing final stakeholder comments and working towards completion and filing of the Environmental Study Report (ESR) submission by Tuesday, February 14th.

It is important for CVC to complete the report and file as soon as possible due to the timelines associated with the posting and review period, the MOECC review period, and the need to plan for a tendering and award of Phase II detailed design. CVC would like to continue to build upon the good work of stakeholder consensus-building that has occurred during this EA process so that we can bring this broadly-supported vision towards implementation.

CVC has considered your letter dated November 22, 2016 (Heaton-Rundle) and is disappointed that MNRF Aurora District is indicating that it will not move forward in-step with CVC and its partners in the selection of the preferred alternative and its sub-options, filing of the Class EA, and ultimately through the permitting and implementation stages. We understand your concerns relate primarily to the selection of Option 1 as the preferred spillway geometry (i.e., Option 1 Lower 1 m vs. Option 2 Lower 1.5 to 2 m) and we continue to maintain that your comments have been, or can be, addressed within the confines of the preferred Option 1 as described in the Draft ESR, which precludes lowering equal to or greater than 1.5m. We continue to offer an open door to sit down and work through your concerns or outline the ways that they could be addressed at the detailed design stage later this year.

In response to your comments on your preference for another option other than the selected preferred alternative, we maintain that CVC and its consultants have fairly considered the objectives of all stakeholder agencies and the public as required by the EA process, and we note the preferred alternative and associated implementation options represent a compromise to all. CVC has provided specific responses to the comments in your letter (Heaton-Rundle, November 22, 2016) in the attached matrix. While MNRF's focus of review is specific to its own mandates and is understandably narrower than what CVC is required to consider as part of the Class EA process, we have demonstrated that the preferred alternative is not contrary to any legislation or guidelines overseen by MNRF. CVC looks forward to cooperation from MNRF at the permitting stage (i.e. through LRIA, PLA) for the preferred alternative and preferred implementation options as outlined in the ESR.

Comments related to natural channel function and minimizing occupation of riverbed will be addressed more thoroughly at the detailed design stage – and we welcome that conversation. However, MNRF's disagreement with the selection of the preferred alternative is, in our view, unfounded and not sufficiently justified to warrant re-evaluation of the CVC Board approved option.

Sincerely,



Jesse de Jager

Conservation Lands Planner

Credit Valley Conservation Authority

905-670-1615 ext. 281 | jesse.dejager@creditvalleyca.ca

cc: Deborah Martin-Downs (CVC)
Jeff Payne (CVC)
Mark Thompson (CVC)
Eric Baldin (CVC)
Paul Heeney (MNRF)
Mark Stephen (MNRF)
Peter Felix (MNRF)
Chris Hislop (MNRF)
David Johnston (MNRF)
Emily Funnell (MNRF)
Ron Scheckenberger (AFW)
Aaron Brouwers (AFW)
Heather Dearlove (AFW)

Summary of CVC Responses to MNRF Comments

MNRF Comment (Heaton-Rundle, Nov 22,16)	CVC Response
<p>MNRF interests in this study are associated with dam safety (Lakes and Rivers Improvement Act), fisheries management, Crown Land management (Public Lands Act) and species at risk (Endangered Species Act). Option 1 favours perceived cultural heritage and recreational interests in relation to MNRF interests. In our opinion, Option 2 has a more balanced compromise position in relation to study objectives and reasonably satisfies broader public interests by:</p>	<p>CVC has respectfully considered MNRF mandates and MNRF staff's opinion along with similar and competing mandates and opinions from other stakeholders and has determined that Option 1 provides the best balance across the identified objectives.</p>
<p>1. Minimizing occupation of Crown lands with engineered structures (no upstream grade control structure required)</p>	<p>CVC has revised the language in the ESR to refer to the 'grade control structure' more accurately as a 'riffle'. Although Option 2 would reduce the size of the riffle required, it would not be eliminated. CVC and the MNRF regularly promote and permit the construction of riffle-pool systems where they are reflective of natural channel conditions. This is the case with Belfountain Dam and Headpond, with compromises in the channel design required to reduce impacts on cultural heritage, visitor experience and other competing objectives. CVC is open to and would welcome input from MNRF on the natural channel design at detailed design.</p>
<p>2. Restoring natural channel functions and water quality downstream of the structure</p>	<p>CVC agrees with these objectives and Option 1 provides significant improvement to natural channel function and water quality throughout the existing headpond and downstream relative to existing conditions, as well as reductions in upstream flood elevations and potential for sediment accumulation. Further improvements to these objectives would result in unacceptable negative impacts to other competing study objectives (cultural heritage, visitor experience, BCA economic viability)</p>
<p>3. Further reducing the elevation of water and sediment currently stored behind the dam</p>	
<p>It is important to remember that the Environmental Study Report drafted in October 2002 recommended that only a 2.0m waterfall remain as part of the recommended solution. This assessment was completed with similar evaluation criteria at the time.</p>	<p>While the 2002 ESR and its baseline inventory formed part of the background information reviewed as part of the current Class EA, the evaluation of alternatives, implementation options and associated recommendations contained within the current Draft ESR are fully independent of the 2002 study.</p>



**Ministry of Environment and Climate Change
(MOECC)**

Dearlove, Heather

Subject: FW: Belfountain Conservation Area Dam and Headpond Class EA

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: December-09-15 8:44 AM
To: 'chunmei.liu@ontario.ca' <chunmei.liu@ontario.ca>
Cc: Brouwers, Aaron <aaron.brouwers@amec.com>
Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Chunmei,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The MOECC has been identified as having a key role in the review and approval for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory
Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

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Dearlove, Heather

Subject: FW: Belfountain Dam and Headpond Class EA
Attachments: TSS Comments_Technical Reports 1 and 2_Belfountain Dam and Headpond_signed.pdf; 1711e01_Part_A_Updated_Nov,_2010[2].pdf

From: Bell, Trevor (MOECC) [<mailto:Trevor.Bell@ontario.ca>]
Sent: January-13-16 12:18 PM
To: Rundle, Laura (LRundle@creditvalleyca.ca) <LRundle@creditvalleyca.ca>
Cc: Scheckenberger, Ron <Ron.Scheckenberger@amec.com>; Martin, Paul (MOECC) <Paul.D.Martin@ontario.ca>; Dufresne, Tina (MOECC) <Tina.Dufresne@ontario.ca>
Subject: Belfountain Dam and Headpond Class EA

Dear Ms. Rundle,

Please find attached a letter from the Ministry of the Environment and Climate Change, Central Region, Technical Support Section regarding the above noted project. Please feel free to contact me directly with any questions or concerns you may have.

With kind regards,

Trevor Bell

Environmental Resource Planner and EA Coordinator
Technical Support Section | Central Region
Ministry of the Environment and Climate Change
5775 Yonge St., 8th Floor
Toronto, ON M2M 4J1
T: 416-326-3577
E: trevor.bell@ontario.ca

Ministry of the Environment and
Climate Change

Central Region
Technical Support Section

5775 Yonge Street, 8th Floor
North York, Ontario M2M 4J1

Tel: (416) 326-6700
Fax: (416) 325-6345

Ministère de l'Environnement et de l'Action
en matière de changement climatique

Région du Centre
Section d'appui technique

5775, rue Yonge, 8^{ème} étage
North York, Ontario M2M 4J1

Tél : (416) 326-6700
Téléc : (416) 325-6347



January 13, 2016

File: EA 01-11

Ms. Laura Rundle
Conservation Lands Planner
Credit Valley Conservation
1255 Old Derry Road
Mississauga, ON L5N 6R4

**RE: Technical Support Section Comments
Belfountain Dam and Headpond
Credit Valley Conservation
Class Environmental Assessment for Remedial Flood and Erosion Control
Projects
Response to Technical Report 1 – Baseline Inventory, August 2015, and
Technical Report 2 – Management Alternatives, December 2015**

We have received Technical Report 1 – Baseline Inventory, and Technical Report 2 – Management Alternatives, for the above noted project. Ministry technical specialists have reviewed these two reports, and we provide the following comments below for your consideration.

We recommend that a draft copy of the Project Plan/Environmental Study Report (ESR) be sent to this office prior to the filing of the final draft, allowing approximately 30 days review time for the ministry's reviewers to provide comments. Please also forward our office the Notice of Filing and Project Plan/ESR when complete.

General Comments

1. Please update the Agency Contact List in 'Appendix 'A' – Public Consultation' to reflect the following changes in Ministry of the Environment and Climate Change (MOECC) contacts:
 - Trevor Bell, Environmental Resource Planner and EA Coordinator. Email: trevor.bell@ontario.ca; Telephone: 416-326-3577 (replaces Amanda Graham).

Technical Comments

1. Section 3.4.4.5 of Technical Report 1 acknowledges that the sediment samples taken from the Belfountain Dam Headpond are not enough to determine the vertical & lateral sediment quality distribution, and that more characterization

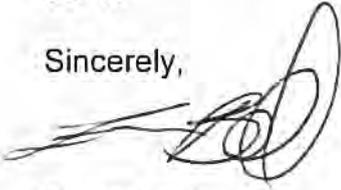
would be required to determine the vertical & lateral sediment quality distribution. We concur with this conclusion. A well thought out sampling program should be developed that would allow a reasonable coverage of the pond area and the depth of the accumulated sediment. The program should also take into consideration the fact that there is no reason to suspect heavy contamination in the study area to manage the intensity of sampling and reduce cost. We recommend this analysis be undertaken prior to finalizing the selection of the preferred alternative.

2. We also recommend the additional sampling program includes analysis of PAHs and metals to verify the assumption that contamination by these is not an issue. As well, additional samples need to be analyzed for TP, TKN and TOC. We concur with the conclusions in the report that BTEX and VOCs are unlikely to be a concern (unless known source or recent spill has been identified). The sediment sample results also support this conclusion. Given the low risk of contamination by these compounds, they could be removed from further analysis.
3. The Parish report compares the PHC F3 and F4 fractions results to the LEL and SEL values provided for total PAHs in Table 2b of the Provincial Sediment Quality Guidelines (PSQG) in *Guidelines for Identifying, Assessing and Managing Contaminated Sediments in Ontario: An Integrated Approach* (2008). Note that the PSQG values mentioned are not for the PHC fractions but for total PAHs - see the notes below Table 2b. There are no Provincial Sediment Quality Guidelines for the PHC F1-F4 fractions, but other standards (for example, the Canada-Wide Standards for PHC in soil) could be used as a screening reference, particularly if the sediment is going to be dredged and disposed of on land. As a result, we do not agree with Parish's statement that headpond sediments are marginally polluted, as they did not have reasons to make this conclusion.
4. The Parish report also recommends undertaking further evaluation to identify potential bio-magnification concerns, toxicity, and any existing impairment to benthic communities (this is following the guidance provided in the 2008 document). The first step in this evaluation should be to complete the additional sampling recommended and to make sure the MDLs used can meet the intended purpose. Also note that the decision making framework provided in the 2008 guideline is most appropriate for making management decisions regarding contaminated sediments. Another ministry document that may be useful in determining whether the sediment is appropriate for any in-water works (if the alternatives require it) and disposal options is the *Handbook for Dredging and Dredged Material Disposal in Ontario – Legislation, Policies, Sediment Classification and Disposal Options*, updated in 2010 (and included as an attachment to this letter). If further sampling (as recommended above) indicates the presence of significant contamination, and if the preferred alternative includes the creation of a new channel, the contaminated sediment should not be used in this construction (even after "dilution" by mixing with additional fill).

Thank you for the opportunity to comment on this project. Should you or any members

of your project team have any questions, please feel free to contact me at 416-326-3577.

Sincerely,



Trevor Bell
Environmental Resource Planner and EA Coordinator
Air, Pesticides and Environmental Planning

Cc: Ron Scheckenberger, Project Manager, Amec Foster Wheeler
Paul Martin, Technical Support APEP Supervisor
Tina Dufresne, Manager, Halton Peel District

Attachment

Attached Report Titled:

**EVALUATING CONSTRUCTION ACTIVITIES IMPACTING ON WATER RESOURCES
PART III A HANDBOOK FOR DREDGING AND DREDGED MATERIAL DISPOSAL IN
ONTARIO - LEGISLATION, POLICIES, SEDIMENT CLASSIFICATION AND DISPOSAL
OPTIONS**

Dearlove, Heather

From: Brouwers, Aaron
Sent: December-09-15 9:05 AM
To: Dearlove, Heather
Subject: FW: Belfountain Conservation Area Dam and Headpond Class EA

Follow Up Flag: Follow up
Flag Status: Flagged

[New MOECC contact for the agencies contact list](#)

From: Liu, Chunmei (MOECC) [<mailto:Chunmei.Liu@ontario.ca>]
Sent: December-09-15 8:52 AM
To: Rundle, Laura <LRundle@creditvalleyca.ca>
Cc: Brouwers, Aaron <aaron.brouwers@amec.com>; Bell, Trevor (MOECC) <Trevor.Bell@ontario.ca>
Subject: RE: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Laura,

Thank you for updating me this project. My colleague Trevor Bell is now responsible for all projects within Peel Region. Trevor will respond you directly about the review of this project. You may also contact Trevor at 416-314-3352.

Thanks,
Chunmei

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: December-09-15 8:44 AM
To: Liu, Chunmei (MOECC)
Cc: 'Brouwers, Aaron'
Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Chunmei,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The MOECC has been identified as having a key role in the review and approval for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory
Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

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May 2, 2016
Our File: TP114113-10



Ministry of the Environment and Climate Change
Technical Support Section | Central Region
5775 Yonge St., 8th Floor
Toronto, ON M2M 4J1

Attention: Trevor Bell,
Environmental Resource Planner and EA Coordinator

Dear Sir:

**Re: Response to Technical Support Section Comments January 13, 2016
Belfountain Dam and Headpond Class Environmental Assessment, CVC**

The Project Team wishes to thank MOECC Technical Support Section staff for reviewing and providing comments (ref. Bell-Rundle, January 13, 2016, attached) on *Technical Report 1 Baseline Inventory* (August 2015) and *Technical Report 2 Management Alternatives* (December 2015). As requested, a Draft Environmental Study Report will be sent to your office prior to filing the final draft.

Responses to Technical Support Section comments are provided in the following (comment numbering has been maintained per the original):

General Comments

1. Trevor Bell has been added to the updated Agency Contact List for distribution on future correspondence.

Technical Comments

1. The Project Team has acknowledged that additional sediment sampling will be required to fully characterize existing conditions in the headpond and to determine the details of the proposed sediment management approach, and associated costs. Although there is value in having a full sediment characterization documented as part of the Class EA process, primarily as it relates to establishing detailed cost estimates, sediment management is not expected to vary significantly between alternatives, and as such, is not considered critical information for selecting the Preferred Alternative. Accordingly, it is proposed to collect this information as part of detailed design. The benefit of this approach will be the ability to specifically tailor the needs of the sediment sampling program to the Preferred Alternative. The foregoing was discussed with staff via conference call on February 2, 2016 and it is understood that staff is agreeable to the proposed timing and approach for the additional sediment sampling.

Continued...
MOECC
May 2, 2016

2. The next stage of sediment sampling will include analysis for PAHs, metals, TP, TKN and TOC as requested by MOECC staff. On the basis of the results of sampling completed to-date, and staff's comments, BTEX and VOCs are considered low risk for contamination in the headpond and will be excluded from future sampling. The foregoing will be included as a recommendation in the Draft ESR.
3. Comments with respect to the analysis and conclusions offered in Parish Aquatic Services correspondence (reference August 25, 2015) regarding PHC, F3 and F4 will be revised in the forthcoming Draft ESR.
4. Future sediment sampling and evaluation will follow the approach recommended by MOECC staff including reference to the 2008 guidelines and the *Handbook for Dredging Material Disposal in Ontario – Legislation, Policies, Sediment Classification and Disposal Options (2010)*; this will also form a recommendation in the Draft ESR. A recommendation will also be included in the Draft ESR that any contaminated sediment would not be used in the construction of the new channel proposed as part of the Preferred Alternative.

We trust the foregoing appropriately addresses MOECC requirements; should you require additional clarification on any of these matters, please feel free to contact either Amec Foster Wheeler of Credit Valley Conservation

Yours truly,

Amec Foster Wheeler Environment & Infrastructure
a Division of Amec Foster Wheeler Americas Limited


Per: Aaron Brouwers, P.Eng.
Senior Engineer


Per: Ron Scheckenberger, M.Eng., P.Eng.
Principal Consultant

AB/ab/cc

c.c. Laura Rundle, CVC

Dearlove, Heather

From: Heywood, Trevor (MOECC) <Trevor.Heywood@ontario.ca>
Sent: June-15-16 10:03 AM
To:
Cc: Rundle, Laura
Subject: RE: Reply: Yes, Page: <https://www.ontario.ca/page/about-ministry-environment-and-climate-change> (Stephen Reave)

Thank you for your inquiry regarding the Belfountain Dam and Headpond Class EA (Project).

As you noted, the Project is being planned by Credit Valley Conservation (CVC). CVC is following a pre-approved process outlined in Conservation Ontario's Class Environmental Assessment for Remedial Flood and Erosion Control Projects (Class EA). At this time, they have completed a Public Information Centre to consult on their latest plans. If you would like more information, there is [Project information available on the CVC website](#). You can also contact Laura Rundle of the CVC with any additional questions, directly at 905-670-1615 ext 535 or at lrundle@creditvalleyca.ca.

When the CVC approaches the end of the Class EA process, they will finalize an Environmental Study Report and issue a Notice of Completion, initiating a public review period for 30 days. During this time, you may review the Environmental Study Report and bring any outstanding environmental concerns to CVC's attention. If you cannot resolve those concerns with CVC, you can request the Minister of the Environment and Climate Change to issue a Part II Order, which would require the CVC to prepare an individual EA. Details on how to request a Part II Order can be found [here](#).

If you have any additional questions about the Class EA process, you can contact me directly at 416-314-7754, or at trevor.heywood@ontario.ca.

Thank you. Sincerely,

Trevor Heywood

Project Evaluator, Project Review Unit
Environmental Approvals Branch
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, ON M4V 1P5
T: (416) 314-7754
E: trevor.heywood@ontario.ca

From: PICEmail (MOECC)
Sent: Friday, June 03, 2016 2:27 PM
To: Bekkout, Lamine (MOECC)
Subject: FW: Reply: Yes, Page: <https://www.ontario.ca/page/about-ministry-environment-and-climate-change> (Stephen Reave)

From: do.not.reply@ontario.ca [<mailto:do.not.reply@ontario.ca>]
Sent: Friday, June 03, 2016 1:48 PM
To: PICEmail (MOECC)
Subject: Reply: Yes, Page: <https://www.ontario.ca/page/about-ministry-environment-and-climate-change> (Stephen Reave)

Referring page: page/about-ministry-environment-and-climate-change

Message:

I would like to appeal the class EA that was conducted on the Mack Dam and Headpond in Belfountain Park. It was conducted as a result of a planned undertaking by the Credit Valley Conservation Authority. How do I go about this process?

Reply Request: Yes

Name:

E-mail:

Phone number:

Address:

User agent: Mozilla/5.0 (Windows NT 6.1; WOW64; Trident/7.0; SLCC2; .NET CLR 2.0.50727; .NET CLR 3.5.30729; .NET CLR 3.0.30729; Media Center PC 6.0; .NET4.0C; .NET4.0E; rv:11.0) like Gecko

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Dearlove, Heather

Subject: FW: Belfountain CA Dam and Headpond Class EA_Technical Report 3

From: Rundle, Laura [<mailto:lrundle@creditvalleyca.ca>]

Sent: July-20-16 8:57 AM

To: trevor.bell@ontario.ca

Cc: Brouwers, Aaron <aaron.brouwers@amec.com>

Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good morning Trevor,

I hope that this email finds you well.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

Earliest this year a preferred alternative was selected which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by **Monday, August 16th**.

The full report and appendices are available on our website; however, the main body of the report and Appendix E are the primary components for review. They are located here:

- Main Report: http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3-Implementation-Options-and-Assessment-of-Environmental-Effects-Report_DRAFT_July-2016.pdf
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_July2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your continued support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

From: Campbell, Candice [<mailto:candice.campbell@amecfw.com>]
Sent: May 2, 2016 11:43 AM
To: trevor.bell@ontario.ca
Cc: Rundle, Laura; Brouwers, Aaron; Scheckenberger, Ron
Subject: Belfountain Dam and Headpond Class Environmental Assessment

Good morning,

Please find attached the response to Technical Support Section Comments, January 13, 2016.

Thank you,

Candice Campbell

Administrative Assistant, Amec Foster Wheeler
3215 North Service Rd, Burlington, ON L7N 3G2
T 905-335-2353
candice.campbell@amecfw.com amecfw.com



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Brouwers, Aaron

From: Bell, Trevor (MOECC) <Trevor.Bell@ontario.ca>
Sent: Thursday, August 11, 2016 11:57 AM
To: Rundle, Laura
Cc: Brouwers, Aaron
Subject: RE: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Hi Laura,

I've reviewed Technical Report 3 for the Belfountain Dam and Headpond Class EA. We have no concerns with preferred alternative as proposed in Technical Report 3. We look forward to receiving the draft ESR for review.

If possible, I would like to schedule a site visit with members of the project team. I'm interested to gain a better first hand understanding of the proposed work and in particular the proposed in-water work for the project.

Sincerely,

Trevor Bell

Environmental Resource Planner and EA Coordinator
Technical Support Section | Central Region
Ministry of the Environment and Climate Change
5775 Yonge St., 8th Floor
Toronto, ON M2M 4J1
T: 416-326-3577
E: trevor.bell@ontario.ca

From: Rundle, Laura [mailto:lrundle@creditvalleyca.ca]
Sent: July-20-16 8:57 AM
To: Bell, Trevor (MOECC)
Cc: Brouwers, Aaron
Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good morning Trevor,

I hope that this email finds you well.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

Earliest this year a preferred alternative was selected which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by **Monday, August 16th**.

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If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your continued support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Campbell, Candice [<mailto:candice.campbell@amecfw.com>]

Sent: May 2, 2016 11:43 AM

To: trevor.bell@ontario.ca

Cc: Rundle, Laura; Brouwers, Aaron; Scheckenberger, Ron

Subject: Belfountain Dam and Headpond Class Environmental Assessment

Good morning,

Please find attached the response to Technical Support Section Comments, January 13, 2016.

Thank you,

Candice Campbell

Administrative Assistant, Amec Foster Wheeler

3215 North Service Rd, Burlington, ON L7N 3G2

T 905-335-2353

candice.campbell@amecfw.com amecfw.com



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Ontario Heritage Trust

Dearlove, Heather

From: Kendrick Doll <Kendrick.Doll@heritagetrust.on.ca>
Sent: January-14-16 9:54 AM
To: Rundle, Laura
Cc: Brouwers, Aaron
Subject: RE: OHT Comments RE: Belfountain Dam and Headpond Class EA_Belfountain Stakeholder Advisory Committee

Thanks to you and Aaron for answering our questions.
Kendrick

Kendrick Doll | Natural Heritage Coordinator
Ontario Heritage Trust
10 Adelaide Street East, Suite 202, Toronto, Ontario, Canada M5C 1J3
Telephone: 416-314-5988 | Fax: 416-314-5979
Email: kendrick.doll@heritagetrust.on.ca

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Please consider the environment before printing this e-mail.

From: Rundle, Laura [mailto:LRundle@creditvalleyca.ca]
Sent: January-14-16 8:16 AM
To: Kendrick Doll
Cc: Sean Fraser; Thomas Wicks; 'Brouwers, Aaron'
Subject: RE: OHT Comments RE: Belfountain Dam and Headpond Class EA_Belfountain Stakeholder Advisory Committee

Good morning Kendrick,

Thank you for your email. Amec has summarized the potential impacts to the OHT dams and the planned mitigation measures below:

- All alternatives
 - **Impact:** potential sediment release during construction
 - **Mitigation:** appropriate erosion and sediment controls to be designed specifically for the preferred alternative
- Alternative D2H2: Rehabilitate the dam and headpond
 - **Impact:** with the headpond cleaned out, sediment transport downstream may be reduced, resulting in reduced sediment accumulation in the headponds associated with Stonecutter's and the Concrete Dam. The actual change in accumulation rate cannot be predicted, but is not expected to be significant.
 - **Mitigation:** none necessary
- Alternative D4H5: Lower the spillway & backfill headpond & construct channel; Alternative D4H6: Lower the spillway and construct channel and offline headpond
 - **Impact:** potential for nominal change in peak flow discharge from the Belfountain dam for smaller storm events. Changes in peak flow discharge from significant storm events are not expected. No negative impacts on the dams downstream are expected.
 - **Mitigation:** none necessary

- **Impact:** with the headpond removed or offline, additional sediment will be conveyed downstream and has the potential to accelerate accumulation in the headponds associated with Stonecutter's and the Concrete Dam. The actual change in accumulation rate cannot be predicted, but is not expected to be significant.
- **Mitigation:** None, the change represents a return to a natural fluvial process in the West Credit River

There would also be potential reductions in water temperature downstream, however this is likely not of concern to OHT as it impacts aquatic habitat only, not the structures themselves.

Please feel free to give me a call if you would like to discuss further.

Thank you,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Kendrick Doll [<mailto:Kendrick.Doll@heritagetrust.on.ca>]
Sent: January 12, 2016 3:02 PM
To: Rundle, Laura
Cc: Sean Fraser; Thomas Wicks; Kendrick Doll
Subject: OHT Comments RE: Belfountain Dam and Headpond Class EA_Belfountain Stakeholder Advisory Committee

Hi Laura,

Thank you for the opportunity to provide comment regarding the three shortlisted management alternatives outlined as part of the environmental assessment for the Belfountain Dam and Head pond. As you mention below, all three highlighted alternatives could have significant impacts to both natural and cultural heritage. The Ontario Heritage Trust's (Trust) comments focus on potential impacts to the two dams on Trust property downstream of the Belfountain Dam.

As you know, the Trust owns the Willoughby property which is downstream and adjacent to the Belfountain Dam and Belfountain Conservation Area. The Willoughby property encompasses a provincially significant cultural heritage landscape and is also registered as an industrial archaeology site. Among others, two key features that embody the cultural heritage landscape and industrial archaeology of the site are the Stone Cutter's Dam and the Concrete Dam.

All three proposed alternatives occur upstream and have to potential to impact the Stone Cutter's and Concrete Dam. Could you please provide clarification of the potential impacts to these downstream dams and the associated mitigation strategies of the short listed management alternatives?

Kendrick

Kendrick Doll | Natural Heritage Coordinator
Ontario Heritage Trust
10 Adelaide Street East, Suite 202, Toronto, Ontario, Canada M5C 1J3
Telephone: 416-314-5988 | Fax: 416-314-5979
Email: kendrick.doll@heritagetrust.on.ca

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From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]

Sent: December-15-15 3:03 PM

To: 'briangreck@rogers.com'; 'Carol Sheppard'; 'Dave Dyce'; Orr, David; Dela Cruz, Gino; 'Judy Mabee'; Kendrick Doll; 'Liz Brock'; 'mike.toutant@ontario.ca'; 'rjasiuk@sympatico.ca'; 'sarah.bohan@belfountainheritage.com'; Steve Goyeche; 'Susan Robertson'; 'Tim Manley'; 'Tina Fernandes'; 'Ian MacCallum'; 'r.kuehnbaum@sympatico.ca'; 'drarthurs@sympatico.ca'; 'sjcopeland@rogers.com'

Cc: Baldin, Eric; Burgess, Kate; 'Michele Harris'; Head, Mark; 'mewaschuk@live.ca'; 'vjjudge@rogers.com'; 'mark.heaton@ontario.ca'; 'Sally.drummond@caledon.ca'; 'susan.cooper@ontario.ca'; Verge, Shawn

Subject: Belfountain Dam and Headpond Class EA_Belfountain Stakeholder Advisory Committee

Good afternoon everyone,

As you are all aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will identify the preferred management alternative for the Belfountain Dam and Headpond in the Belfountain Conservation Area. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. Technical Report 2 is now available on CVC's website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

As part of the Stakeholder Advisory Committee, you have a key role in the review of the Class EA. At this time, we would request that you review the document and provide your comments. Alternatively, I have attached a copy of the handout and questionnaire that was distributed during our public consultation session on December 1, 2015. If you would prefer to submit your comments through the questionnaire, that would be fine as well.

Thank you for taking the time to provide your input on this important project. We request that all comments are received by January 15, 2016. If you would like to provide comments but are unable to meet this timeline, please let me know and we will do our best to accommodate you.

Also, please note that our next SAC meeting has been scheduled for the evening of February 4th. I am still working out a location, but will send a formal invite as soon a venue has been secured.

Please feel free to contact me if you have any questions or would like to discuss this further.

Thank you and have a wonderful holiday season,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

The information contained in this Credit Valley Conservation electronic message is directed in confidence solely to the person(s) named above and may not be otherwise distributed, copied or disclosed including attachments. The message may contain information that is privileged, confidential and exempt from disclosure under the Municipal Freedom of Information and Protection and Privacy Act and by the Personal Information Protection Electronic Documents Act. The use of such personal information except in compliance with the Acts, is strictly prohibited. If you have received this message in error, please notify the sender immediately advising of the error and delete the message without making a copy. Thank you.



An agency of the Government of Ontario
SENT BY MAIL AND EMAIL

10 Adelaide Street East
Toronto, Ontario M5C 1J3

Telephone: 416-325-5000
Fax : 416-325-5071
www.heritagetrust.on.ca

June 23, 2016

Victoria Edwards
Conservation Lands Planner
Credit Valley Conservation
1255 Old Derry Road
Mississauga, ON L5N 6R4

Dear Ms. Edwards,

Class Environmental Assessment for the Belfountain Dam and Headpond Area - Request for further information

As you know, the Trust owns and protects the Willoughby property which is downstream and adjacent to the Belfountain Dam and Belfountain Conservation Area. The Willoughby property encompasses a provincially significant cultural heritage landscape and a registered archaeological site. Among others, two key features that embody the cultural heritage landscape and archaeology of the site are the Stone Cutter's Dam and the Concrete Dam.

As mentioned in previous correspondence (email dated January 12, 2016), the Ontario Heritage Trust has concerns with potential impacts to the Stone Cutter's and Concrete Dams, as well as the natural heritage values along the creek of the Willoughby property as a result of proposed changes to the Belfountain dam within the Belfountain Conservation Area.

Could you please provide the Trust with clarification on any identified potential impacts of the preferred alternative on the Willoughby property, as well as any mitigative measures recommended to address any identified impacts?

Yours truly,

A handwritten signature in blue ink, appearing to read "Chris Mahood".

Chris Mahood, MCIP, RPP
A/Manager of Acquisitions and Conservation Services

July 18, 2016
Our File: TP114113-10



Ontario Heritage Trust
10 Adelaide Street East
Toronto, ON M5C 1J3

Attention: Mr. Chris Mahood, MCIP, RPP,
Manager of Acquisitions and Conservation Services

Dear Sir

Re: Class Environmental Assessment for the Belfountain Dam and Headpond Area, CVC

Thank you for your letter inquiry (ref. Mahood-Edwards, June 23, 2016) regarding the Belfountain Dam and Headpond Class Environmental Assessment. CVC received Ontario Heritage Trust's (OHT) previous correspondence (ref. email Doll-Rundle January 12, 2016) regarding potential impacts to the provincially significant cultural heritage landscape and archaeological site on the Willoughby Property, which includes the Stone Cutter's Dam and the Concrete Dam. At that time, CVC was considering several short-listed alternatives for the future management of Belfountain Dam and Headpond and provided a summary of potential impacts to the Willoughby Property and the proposed mitigation (ref. email Rundle-Doll, January 14, 2016). CVC has now advanced **Alternative D4H5: Lower the spillway & backfill headpond & construct channel** as the Preferred Alternative and offers the following summary of associated potential impacts and the proposed for the Preferred Alternative:

1. **Impact:** Potential sediment release during construction.

Proposed Mitigation: Appropriate erosion and sediment controls to be designed specifically for the Preferred Alternative and implemented, monitored and maintained for the duration of construction.

2. **Impact:** The proposed removal of the headpond and decommissioning of the sluiceway have the potential to result in nominal changes in peak flow discharge from the Belfountain dam for smaller storm events. Changes in peak flow discharge from significant storm events are not expected. No negative impacts on the Willoughby Property are expected.

Proposed Mitigation: None necessary

3. **Impact:** The proposed removal of the headpond has the potential to nominally increase sediment transport through the Belfountain Conservation Area relative to current conditions. Additional sediment may be conveyed downstream to the Willoughby Property where it has the potential to nominally accelerate accumulation in the headponds associated with Stonecutter's and the Concrete Dam. The actual change in accumulation

Continued...
Ontario Heritage Trust
July 18, 2016

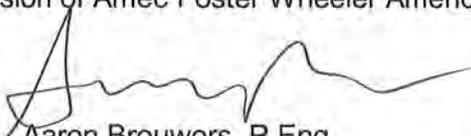
rate cannot be predicted, but is expected to be nominal / negligible. It is noted that sediment loads reaching the Willoughby Property under the Preferred Alternative will be closer to a 'natural' condition in the West Credit River.

Proposed Mitigation: None necessary, the change represents a return to a more natural condition.

We trust the foregoing provides an adequate summary of potential impacts of the Preferred Alternative and the mitigation measures proposed to protect the Willoughby Property and other downstream resources. As is implied above, the Preferred Alternative is not expected to measurably impact the Willoughby property in a negative fashion.

Yours truly,

Amec Foster Wheeler Environment & Infrastructure
a Division of Amec Foster Wheeler Americas Limited

Per: 
Aaron Brouwers, P.Eng.
Senior Engineer

Per: 
Ron Scheckenberger, M.Eng., P.Eng.
Principal Consultant

AB/ab/cc

c.c. Victoria Edwards, CVC
Laura Rundle, CVC

Dearlove, Heather

Subject: FW: Belfountain CA Dam and Headpond Class EA_Technical Report 3
Attachments: 16-07-18 OHT Response.pdf

From: Rundle, Laura [<mailto:lrundle@creditvalleyca.ca>]

Sent: July-20-16 9:23 AM

To: Chris Mahood <Chris.Mahood@heritagetrust.on.ca>; Kendrick Doll <kendrick.doll@heritagetrust.on.ca>

Cc: Brouwers, Aaron <aaron.brouwers@amec.com>; Edwards, Victoria <vedwards@creditvalleyca.ca>

Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good morning Chris and Kendrick,

I hope that this email finds you both well.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and to forward you the response to your letter dated June 23, 2016 (please see attached).

Earlier this year a preferred alternative was selected, which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by **Tuesday, August 16th**.

The full report and appendices are available on our website; however, the main body of the report and Appendix E are the primary components for review. They are located here:

- Main Report: http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3-Implementation-Options-and-Assessment-of-Environmental-Effects-Report_DRAFT_July-2016.pdf
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_July2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns on either the attached letter or report.

Thank you for your support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca



Ministry of Tourism, Culture, and Sport (MTCS)

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Culture Services Unit
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Télééc. : 416 212-1802



January 26, 2016 (by email only)

Ms. Laura Rundle
Conservation Lands Planner
Credit Valley Conservation
1255 Old Derry Road
Mississauga, ON L5N 6R4

Dear Ms. Rundle,

Project: Belfountain Dam & Head Pond Class EA
Location: Town of Caledon
MTCS File No.: 0002921

Thank you sending the Ministry of Tourism, Culture and Sport (MTCS) reports for the above named EA project for our review. MTCS's interest in this EA project relates to its mandate of conserving Ontario's cultural heritage, which includes:

- archaeological resources
- built heritage resources, and
- cultural heritage landscapes.

MTCS has reviewed the following reports and offers its comments and recommendations for this EA:

- *Cultural Heritage Evaluation Report: Belfountain Conservation Area*, Town of Caledon dated August 2015 prepared by Amec Foster Wheeler Environment & Infrastructure
- *Technical Report 1 – Baseline Inventory* dated August 2015 prepared by Amec Foster Wheeler Environment & Infrastructure
- *Technical Report 2 – Management Alternatives* dated December 2015 prepared by Amec Foster Wheeler Environment & Infrastructure

1. *Cultural Heritage Evaluation Report: Belfountain Conservation Area (CHER)*

MTCS has no issues with this technical evaluation report and the built heritage resources and cultural heritage landscapes identified.

The conservation recommendations outlined in Section 5.0 provide sound advice and should be considered in the overall EA.

2. *Technical Report 1 – Baseline Inventory*

The built heritage and cultural heritage landscape information outlined in the Baseline Inventory is consistent with the information provided in the CHER.

With regard to the archaeological assessment, MTCS records confirm that we have received a Stage 1 archaeological assessment report, but we still need to review it. If, as this EA proceeds, you require a written from the Ministry's Archaeology Review staff regarding the Stage 1 report, your archaeologist can request an expedited review.

3. Technical Report 2 – Management Alternatives

After evaluating a number of alternatives for this project, this Technical Report presents the three alternatives that will be carried forward for further consideration. The Short-Listed alternatives are:

- *Alternative D2H2: Rehabilitate the dam and headpond*
- *Alternative D5H5: Lower the spillway and backfill the headpond and construct a channel*
- *Alternative D4H6: Lowered the spillway and construct channel and offline the headpond*

We recognize that the process of developing and identifying these three short-listed alternatives required careful balancing of complex environmental factors. We also recognize the thoughtful consideration to minimize impacts to cultural heritage resources and present alternatives where the impacts to cultural heritage could be mitigated.

From a cultural heritage perspective, each of the three alternatives, with the proposed mitigation measures, would be acceptable.

That said we understand from the CHER that this existing dam was constructed in the early 1900's by Charles Mack, whose intent was to create a visual waterfall effect. While there was an earlier functioning power generating dam located nearby, it was not at the present location. It seems that the visual and aesthetic value of the waterfall and the head pond outweighs the value of the structure itself. Perhaps your heritage consultant, Linda Axford could weigh in on this.

We hope you have found these comments useful. Please feel free to contact me should you have any questions.

Sincerely

Rosi Zirger
Heritage Planner
416-314-7159
rosi.zirger@ontario.ca

Dearlove, Heather

From: Brouwers, Aaron
Sent: July-19-16 2:17 PM
To: Dearlove, Heather
Subject: FW: Belfountain CA Dam and Headpond Class EA_Technical Report 3
Attachments: Heritage Caledon - comments to CVC re Belfountain dam & headpond EA 18-Mar-16.pdf; Technical Report 3 - Report Only_DRAFT.pdf

For agency consultation record

From: Rundle, Laura [mailto:lrundle@creditvalleyca.ca]
Sent: July-19-16 2:04 PM
To: Zirger, Rosi (MTCS) <Rosi.Zirger@ontario.ca>
Cc: Brouwers, Aaron <aaron.brouwers@amec.com>
Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good afternoon Rosi,

I hope that this email finds you well and that you are enjoying the summer.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

Earliest this year a preferred alternative was selected, which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function. The preferred alternative received support from the local heritage committee; I have attached their comments for your information and records.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by Monday, August 15th.

The full report and appendices are available on our website; however, the main body of the report and Appendix E are the primary components for review. They are located here:

- Main Report: Attached to this email
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_June-2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your continued support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

From: Zirger, Rosi (MTCS) [<mailto:Rosi.Zirger@ontario.ca>]

Sent: January 26, 2016 11:27 AM

To: Rundle, Laura

Cc: 'Brouwers, Aaron'

Subject: RE: Belfountain Conservation Area Dam and Headpond Class EA

Hi Laura

Please accept my apologies to the late reply. Please find attached our comments regarding our review of the Technical Reports for this project.

Let me know if you have any questions or concerns. I would be happy to have further discussions with you. Meanwhile, please continue to keep us informed of this project as it proceeds through the EA process.

Sincerely

Rosi Zirger

Heritage Planner

Ministry of Tourism, Culture & Sport

Culture Division | Programs & Services Branch | Culture Services Unit

401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7

Tel. 416.314.7159 | Fax 416.314.7175 | E-mail: rosi.zirger@ontario.ca

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]

Sent: December 9, 2015 8:27 AM

To: Zirger, Rosi (MTCS)

Cc: 'Brouwers, Aaron'

Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Rosi,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The MTSC has been identified as having a key review and approval role for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory

Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lrundle@creditvalleyca.ca | creditvalleyca.ca

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Ministry of Tourism, Culture and Sport

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Toronto ON M7A 0A7
Archaeology@ontario.ca

Ministère du Tourisme, de la Culture et du Sport

Unité des programmes d'archéologie
Direction des programmes et des services
Division de culture
401, rue Bay, bureau 1700
Toronto ON M7A 0A7
Archaeology@ontario.ca



Apr 1, 2016

Shaun Austin (P141)
AMEC Earth & Environmental
1 - 505 Woodward Hamilton ON L8H 6N6

**RE: RE: Entry into the Ontario Public Register of Archaeological Reports:
Archaeological Assessment Report Entitled, "Stage 1 Archeological Background
Study and Property Inspection, Belfountain Conservation Area, Town of Caledon,
Region of Peel, Ontario", Dated Aug 20, 2015, Filed with MTCS Toronto Office on
Sep 1, 2015, MTCS Project Information Form Number P141-0220-2015**

Dear Dr. Austin:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c 0.18 has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to Archaeology@Ontario.ca

cc. Archaeology Licensing Officer
Laura McDonald, Credit Valley Conservation
Laura McDonald, Credit Valley Conservation

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Dearlove, Heather

From: Brouwers, Aaron
Sent: August-17-16 3:17 PM
To: Dearlove, Heather
Subject: FW: Belfountain CA Dam and Headpond Class EA_Technical Report 3
Attachments: Belfountain Dam and Headpond EA- MTCS comments on Tech Rpt 3-Aug 10, 2016.pdf

Saved to received folder for my purposes, but should be included in agency cons summary, thx

From: Zirger, Rosi (MTCS) [mailto:Rosi.Zirger@ontario.ca]
Sent: August-10-16 11:58 AM
To: Rundle, Laura <lrundle@creditvalleyca.ca>
Cc: Brouwers, Aaron <Aaron.Brouwers@amecfw.com>
Subject: RE: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Hi Laura

Thank you for sending the Ministry of Tourism, Culture and Sport (MTCS) draft Technical Report 3 for this EA project. Please find attached MTCS comments for this draft report. Also please provide clarification regarding the "pulpit" as requested in our letter.

Please contact me as necessary for further discussion.

Sincerely
Rosi

Rosi Zirger

Heritage Planner

Ministry of Tourism, Culture & Sport
Culture Division | Programs & Services Branch | Heritage Programs Unit

401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7

Tel. 416.314.7159 | Fax 416.212-1802 | E-mail: rosi.zirger@ontario.ca

From: Rundle, Laura [mailto:lrundle@creditvalleyca.ca]
Sent: July 19, 2016 2:04 PM
To: Zirger, Rosi (MTCS)
Cc: 'Brouwers, Aaron'
Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good afternoon Rosi,

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I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

Earliest this year a preferred alternative was selected, which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between

retaining heritage features and characteristics and enhancing natural stream function. The preferred alternative received support from the local heritage committee; I have attached their comments for your information and records.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by Monday, August 15th.

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- Main Report: Attached to this email
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_June-2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your continued support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

905.670.1615 ext 535 | 1.800.668.5557

lundle@creditvalleyca.ca | creditvalleyca.ca

From: Zirger, Rosi (MTCS) [<mailto:Rosi.Zirger@ontario.ca>]

Sent: January 26, 2016 11:27 AM

To: Rundle, Laura

Cc: 'Brouwers, Aaron'

Subject: RE: Belfountain Conservation Area Dam and Headpond Class EA

Hi Laura

Please accept my apologies to the late reply. Please find attached our comments regarding our review of the Technical Reports for this project.

Let me know if you have any questions or concerns. I would be happy to have further discussions with you. Meanwhile, please continue to keep us informed of this project as it proceeds through the EA process.

Sincerely

Rosi Zirger

Heritage Planner

Ministry of Tourism, Culture & Sport

Culture Division | Programs & Services Branch | Culture Services Unit

401 Bay Street, Suite 1700 Toronto, Ontario M7A 0A7

From: Rundle, Laura [<mailto:LRundle@creditvalleyca.ca>]
Sent: December 9, 2015 8:27 AM
To: Zirger, Rosi (MTCS)
Cc: 'Brouwers, Aaron'
Subject: Belfountain Conservation Area Dam and Headpond Class EA

Good morning Rosi,

As you are aware, CVC is currently undertaking the Belfountain Dam & Headpond Class Environmental Assessment. The study will advance the preferred management alternative for key features in the Belfountain Conservation Area which is a part of the larger Belfountain Complex. The preferred alternative has the potential to have significant effects on both natural and cultural heritage.

As part of 'Technical Report 2 – Management Alternatives', three (3) alternatives have been advanced to the short-list, one of which will be selected as the preferred alternative. The MTSC has been identified as having a key review and approval role for the Class EA. At this time we would request that you review and comment on the following documents:

Technical Report 1 – Baseline Inventory
Technical Report 2 – Management Alternatives

These documents are available for download on CVC's website at the following link:

<http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>

We thank-you for your input and request your review by January 15, 2016. Please feel free to contact me if you have any questions or would like to set-up a meeting to discuss further.

Kind regards,

Laura Rundle
Conservation Lands Planner | Credit Valley Conservation
905.670.1615 ext 535 | 1.800.668.5557
lrundle@creditvalleyca.ca | creditvalleyca.ca

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Ministry of Tourism, Culture & Sport

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Télééc. : 416 212-1802



August 10, 2016 (by email only)

Ms. Laura Rundle
Conservation Lands Planner
Credit Valley Conservation
1255 Old Derry Road
Mississauga, ON L5N 6R4

Dear Ms. Rundle,

Subject: Draft Technical Report 3 dated June 2016
Project: Belfountain Dam & Head Pond Class EA
Location: Town of Caledon
MTCS File No.: 0002921

Thank you sending the Ministry of Tourism, Culture and Sport (MTCS) the *draft Technical Report 3 – Implementation Options & Detailed Assessment of Environmental Effects* dated June 2016 prepared by Amec Foster Wheeler for our review. Thank you also for sending a copy of letter from Heritage Caledon dated March 18, 2016, supporting alternative D4H5.

MTCS's interest in this EA project relates to its mandate of conserving Ontario's cultural heritage, which includes archaeological resources, built heritage resources and cultural heritage landscapes. MTCS has reviewed the above named Technical Report 3 and offers the following comments:

Section 5.0 of the report states that the preferred alternative is Alternative D4H5: Lower the spillway & backfill headpond & construct channel.

MTCS generally supports the alternative selected as well as the design considerations and implementation options set out in the Technical Report.

That said, Table 6.1 Design Element: J-Supplementary Heritage Mitigation indicates no recommended option for the "pulpit" which appears to refer to a viewing platform. Could you please clarify what the "pulpit" is and where it is located? We can find no mention of it in the Cultural Heritage Evaluation Report.

Please contact me as necessary for further discussion.

Sincerely

Rosi Zirger
Heritage Planner
416-314-7159
rosi.zirger@ontario.ca

Ms. Rosi Zirger
Heritage Planner
Cultural Services Unit
Programs and Services Branch
401 Bay Street, Unit 1700
Toronto, Ontario M7A 0A7

Dear Ms. Zirger,

Thank you for your comments on the Draft Technical Report 3 for the Belfountain Dam and Headpond Class EA, dated August 10th, 2016.

In your regards to your request for clarification on the optional 'pulpit' identified in table 6.1, the pulpit was indeed a viewing platform. The pulpit appears in historic photographs of Belfountain Conservation Area, including the images located on page two.

The pulpit was removed sometime after the property was acquired by CVC in 1959, likely in the mid 1960's when works on the dam and swing bridge took place. The structure was not replaced.

Through the Class Environmental Assessment process, there was some internal discussion about installing a similar structure. Ultimately it was determined that if a viewing structure similar to the original pulpit was to be included in the site design, a more suitable location from both a structural and visitor experience perspective would be attaching it to the existing terrace (the site of Mack's original summer home), just downstream of the dam. The inclusion of a cantilevered viewing platform for the terrace, in a similar design to the original pulpit, will be included in the first draft of the forthcoming management plan for the site.

Please do not hesitate to contact me if you have any questions or require further clarification.

Kind regards,

A handwritten signature in black ink that reads 'L Rundle'.

Laura Rundle
Conservation Lands Planner
lrundle@creditvalleyca.ca
(905) 670 – 1615 ext. 535



Figure 1: Pulpit in early image of Mack's Park



Figure 2: Pulpit



Region of Peel

Dearlove, Heather

Subject: FW: Belfountain CA Dam and Headpond Class EA_Technical Report 3

From: Rundle, Laura [<mailto:lrundle@creditvalleyca.ca>]

Sent: July-20-16 9:03 AM

To: Hewitt, Heather <heather.hewitt@peelregion.ca>

Cc: Brouwers, Aaron <aaron.brouwers@amec.com>

Subject: Belfountain CA Dam and Headpond Class EA_Technical Report 3

Good morning Heather,

I hope that this email finds you well.

I wanted to provide you with an update on the Belfountain Dam and Headpond Class EA and forward the latest report for your review.

Earliest this year a preferred alternative was selected which includes lowering the heritage dam by approximately 1 m, removing the headpond and creating a natural channel. CVC feels that this alternative represents a reasonable compromise between retaining heritage features and characteristics and enhancing natural stream function.

The proposed implementation of the preferred alternative and a detailed assessment of potential effects are contained within the technical report linked below. This report completes a series of three technical reports that have been developed for the project. Once finalized, they will formulate the Environmental Study Report (ESR) for the project.

At this time, we are asking our agency partners to review and provide input on this technical report. The comments provided will be incorporated into the ESR, which we plan to circulate this fall. We are hoping that by soliciting comments at this phase in the process, we will be able to streamline the review of the ESR. We are asking for comments by **Tuesday, August 16th**.

The full report and appendices are available on our website; however, the main body of the report and Appendix E are the primary components for review. They are located here:

- Main Report: http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3-Implementation-Options-and-Assessment-of-Environmental-Effects-Report_DRAFT_July-2016.pdf
- Appendix E (Preliminary Design Drawings): http://www.creditvalleyca.ca/wp-content/uploads/2016/07/Technical-Report-3_DRAFT_July2016_Appendix-E.pdf

Additional information about the project is also located on our website: <http://www.creditvalleyca.ca/enjoy-the-outdoors/conservation-areas/belfountain-conservation-area/belfountain-conservation-area-management-plan/class-environmental-assessment-for-belfountain-dam-and-headpond-area/>.

If you would like a hard copy of the report please let me know and I will mail one to you.

Please do not hesitate to contact me if you have any questions or concerns.

Thank you for your support with this project.

Kind regards,

Laura Rundle

Conservation Lands Planner | Credit Valley Conservation

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