

To:	COUNCIL	Meeting Date: 04/17/2018
Subject:	Riverside Dam Class Environmental Assessment	Report No: 18-066(CD)
From:	James Etienne, P.Eng., City Engineer	File No: T-04-060-RI

RECOMMENDATION(S)

THAT report 18-066(CD), regarding the Riverside Dam Class Environmental Assessment be received for information.

EXECUTIVE SUMMARY

Purpose

- Report prepared in response to Council direction on March 27, 2018 on how to proceed with rebuilding and/or repairing the Riverside Dam.
- To provide an update on the status of the Riverside Dam Class Environmental Assessment and next steps.

Key Findings

- Approach developed to revisit the preliminary preferred alternative for the Riverside Dam Class Environmental Assessment.
- Explanation provided regarding decisions to exclude tourism as an evaluation criterion and remove the Repair Riverside Dam alternative from consideration.

Financial Implications

- The estimated capital costs to Rebuild Riverside Dam (+/- \$5.4M) or Naturalize the River (+/- \$5.3M) are almost the same.
- Based on dam operating experience from the water resources industry, Rebuilding Riverside Dam would require ongoing operating and capital budget expenditures at an average \$30,000/year over the life of the structure.
- Project review by regulatory agencies will determine the full scope and cost of the conditions required to approve and build the preferred alternative.
- Work to complete the filing of the Class Environmental Assessment is included within the existing capital budget.

BACKGROUND

Riverside Dam Class Environmental Assessment – Study Completion

The Riverside Dam Class Environmental Study was commissioned by the City in 2011 to determine a management alternative for the failing dam situated in the Speed River adjacent to Riverside Park. As a result of the study, agency review and public consultation, including input from technical and stakeholder advisory committees and four public information centres (PICs), a Class Environmental Assessment Project File was drafted by the study consultant, Amec Foster Wheeler (AMEC).

On March 6, 2018, staff delivered Report 18-016(CD) along with the consultant's presentation recommending "that Council authorizes staff to finalize the Class Environmental Assessment (EA) Project File including authorization for staff to post the Notice of Completion for the 30-day review period". The draft Class EA Project File included a preliminary preferred alternative to remove Riverside Dam and Naturalize the Speed River.

In response to a significant community appeal to rebuild or repair Riverside Dam, Council acknowledged that the existence of a dam and mill pond in Preston is an asset of significant historical value and pride to the community that should be maintained. Riverside Dam is considered to be essential to the enjoyment of Riverside Park and the identity of Preston.

As a result, Council deferred the proposed recommendation and asked staff to report back to Council on how to proceed with rebuilding and/or repairing the dam. On March 27, 2018 Cambridge City Council ratified the General Committee resolution recognizing the significance and value of the Riverside Dam and mill pond to the community.

In response to Council's request, staff and AMEC have revisited the initial assessment and have looked at how to proceed in terms of next steps.

ANALYSIS

Strategic Alignment:

PLACE: To take care of, celebrate and share the great features in Cambridge that we love and mean the most to us.

Goal #5 - Parks and Recreation

Objective 5.3 Develop a strategic approach to programs and services that tie investments/ resources to community outcomes.

Riverside Dam and mill pond in Preston is an asset of great pride to the community that has cultural heritage significance and should be designed, built and maintained as a feature that enhances the experience of Riverside Park visitors.

Comments

Revisiting the Environmental Assessment Evaluation Criteria

In order to undertake any work on the Riverside Dam, it is necessary to complete an environmental assessment under the Provincial Environmental Assessment Act.

Various criteria were used during the EA process to determine the preliminary preferred alternative. However, in response to the delegation concerns and feedback received from Council on March 6th, the “cost”, “liability” and “flooding” criteria have been revisited to more completely reflect the sentiments of Council and the public.

Consideration of Tourism as an Evaluation Criterion

During the 2017 Stakeholder workshop, a group of stakeholders requested that tourism be added to the list of evaluation criteria. Tourism is an economic criterion and, in consideration of the existing situation, there is no evidence of existing financial benefits that can be associated with the dam that could be used as a measurable comparator for alternative solutions.

It was also unclear amongst the workshop stakeholders whether the tourist attraction was Riverside Park or the dam. The evaluation of alternatives was completed using a “park vistas” criterion which was given the highest criteria weighting. As a result, “tourism” was not included with the criteria for evaluating the alternatives.

Elimination of Alternative ‘B’: Repair Riverside Dam

With respect to elimination of a dam repair alternative, the draft Class EA Project File states that a repaired dam would generally function as the existing dam does and maintain the associated mill pond. However, the required cap to repair the weir would change the historic and aesthetic appearance of the dam, and the north and south control structures would have to be rebuilt due to their advanced state of decay.

In order to repair the dam, a permit under the Lakes and Rivers Improvement Act (LRIA) would be required from the Ministry of Natural Resources & Forestry (MNRF). If the permit application for structural repairs is considered as a new dam, the structure would be required to meet current Provincial guidelines and permitting requirements.

Making repairs to a structure, considered to be at the end of its design life, would only extend the useful life of the structure but the extended time would not be expected to match the full design life of a rebuilt structure. Finally, looking at the entire life-cycle

costs of Repairing the Dam versus Rebuilding the Dam, it is estimated that a repaired dam would cost 7% more than a rebuilt dam. As a result, Alternative 'B': Repair Riverside Dam was eliminated from further study.

Implications

- The estimated capital costs to Rebuild Riverside Dam (+/- \$5.4M) or Naturalize the River (+/- \$5.3M) are almost the same.
- Based on dam operating experience from the water resources industry, Rebuilding Riverside Dam would require ongoing operating and capital budget expenditures at an average \$30,000/year over the life of the structure (assuming annual operating costs are 2% of the \$1.5M infrastructure cost).
- A commitment to investing in the reconstruction of the Riverside Dam will ensure the past significance of the dam is maintained for future generations.
- Tourism is not considered to be a viable criterion for evaluating the alternatives.
- Repairing Riverside Dam is not considered to be a viable alternative.

Existing Policy/By-Law:

Municipal Class Environmental Assessment Process and Next Steps

The study of alternatives for the future of Riverside Dam has been carried out in accordance with the Municipal Class EA process. Upon completion of a Class EA, the proposed design and implementation plan would then be subject to approvals and conditions by a variety of regulatory agencies including, but not limited to:

- LRIA Approval – Ministry of Natural Resources & Forestry
- Alterations to Waterways Permit – Grand River Conservation Authority
- Permit to Take Water – Ministry of Environment & Climate Change
- Navigable Waters Permit – Transport Canada
- Fish Passage - Federal Ministry of Fisheries & Oceans

The agencies' review and determination of conditions would inform the full scope of work required to ensure the following:

- that any in-river work is designed according to current standards,
- the safe construction, operation and maintenance of any infrastructure,
- protection against unnecessary flooding,
- to facilitate the movement of fish, and
- protection of Species at Risk.

Financial Impact:

If the project to rebuild or repair Riverside Dam is deemed to be a new dam, the structure would be required to meet current Provincial guidelines and permitting requirements. As a result, the LRIA approval could include conditions to fully mitigate the impacts of a dam that are not currently associated with the existing dam including:

- operating gates and valves to reduce flooding potential and help pass sediment,
- a fish ladder to facilitate fish passage,
- health and safety apparatus for safe access and protection of operations staff,
- fencing, signage and river barriers to prevent recreational use near the dam,
- an operations and maintenance plan to ensure the ongoing safe use and functioning of the dam.

The actual costs to tender, build, operate and maintain the dam will not be fully known until the detailed design and approval process is completed.

Public Input:

Additional Class Environmental Assessment Consultation Process

Public consultation is required as part of the Municipal Class EA process. The study has been carried out as a Schedule 'B' Class EA, and public consultation to this point has exceeded the minimum requirements of the process. To date, there have been four rounds of contact with a Technical Advisory Committee (TAC), a Stakeholder Advisory Committee (SAC) and the general public at Public Information Centres (PICs). The last round of consultation dealt with the selection of a preliminary preferred alternative, being Alternative 'E': Naturalize the Speed River.

In order to prepare for Council authorization to file the Environmental Study Report (ESR), it is proposed that notifications be sent to study participants inviting comments on the proposal to bring forward Alternative 'C': Rebuild Riverside Dam as the preliminary preferred alternative. Stakeholders will be solicited through mail, e-mail, social media, and individual meetings for their comments.

Internal/External Consultation:

The following schedule is anticipated in order to advance the preferred alternative to the filing of the final Environmental Study Report (ESR) for 30-day public review:

- Apr/17/2018 Council notification of next steps
- by Apr/30/2018 Notify study stakeholders of preliminary preferred alternative
- Apr/May 2018 Individual meetings with key stakeholders
- by Jun/15/2018 Integrate additional consultation feedback in the draft ESR
- by Jun/29/2018 Seek Council approval to file the ESR
- by Jun/30/2018 File the ESR for or 30 (or more) day public review period

Members of the public who have unresolved concerns following the 30-day review period can appeal to the Minister of Environment & Climate Change to ask the City to prepare an Individual EA (known as a “Part II Order”). If there are no Part II Order requests, the City can implement the preferred alternative tentatively as follows:

- 2018 through 2019 Project planning and detailed design
- 2019 into 2020 Approvals and permitting
- 2020 Construction (within approved in-river work window)

CONCLUSION

Riverside Dam and mill pond in Preston is an asset of great pride to the community that has cultural heritage significance and should be designed, built and maintained as a feature that enhances the experience of Riverside Park visitors. As a result, Council has asked staff to identify a process that enables the City to rebuild or repair Riverside Dam.

Council and community input are being used to revisit the selection of the preliminary preferred alternative for additional public consultation on the Rebuild Riverside Dam alternative. A timetable has been prepared to achieve filing of the ESR by June 30th.

SIGNATURE

Prepared by:



Name: James Etienne, P.Eng.

Title: City Engineer

Departmental Approval:



Name: Hardy Bromberg

Title: Deputy City Manager, Community Development

City Manager Approval:

A handwritten signature in black ink, appearing to read "Gary Dyke". The signature is fluid and cursive, with a large initial "G" and "D".

Name: Gary Dyke
Title: City Manager

ATTACHMENTS

None