Public Information Centre #2

Upper Thames River Conservation Authority

Harrington Dam
Class Environmental Assessment

NOTICE OF SECOND PUBLIC INFORMATION CENTRE

THE STUDY

Upper Thames River Conservation Authority (UTRCA), through their consultant Ecosystem Recovery Inc., is undertaking a Class Environmental Assessment (Class EA) for the Harrington Dam in the Township of Zorra. The study was initiated to address results of the 2007 Dam Safety Review of the Harrington Dam which identified significant issues with the spillway capacity and embankment stability of the dam.

SECOND PUBLIC OPEN HOUSE

The first open house was held on June 25, 2015 to introduce the study and to receive comments from the public. A second Public Open House will be held on May 12, 2016 to present an overview of existing conditions, to introduce technically feasible potential alternative solutions for the future of the dam, to review the evaluation criteria for the alternatives, and to provide an opportunity for public comment and input. A third Public Open House will be held to present the preferred alternative for the dam; the expected date is June 2016.

The map on the reverse of this page shows the location of the study area.

WE WANT TO HEAR FROM YOU

Public consultation is a key component of this study. The Project Team invites public input and comments, and will incorporate them into the planning and design of this project. The second Public Information Centre will take place at the following time and location:

Public Information Center 2:

Date:	**May 12th, 2016**
Time:	**7:00 p.m. to 9:00 p.m.**
Place:	**Harrington Hall and Library** **539 Victoria Street** **Harrington, ON**

The evening will begin at 7:00 pm with a formal presentation that will be followed by a time for discussion and questions. Presentation boards will be displayed throughout the evening and comment forms will be provided to enable public feedback and input into the project. Further opportunity for questions and discussion with the project team will occur throughout the evening.

STUDY CONTACTS

To submit comments, request further information, or to join the project mailing list, please send an email to the project email address:

harrington_dam@thamesriver.on.ca

Contact information for the project team leaders is listed below:

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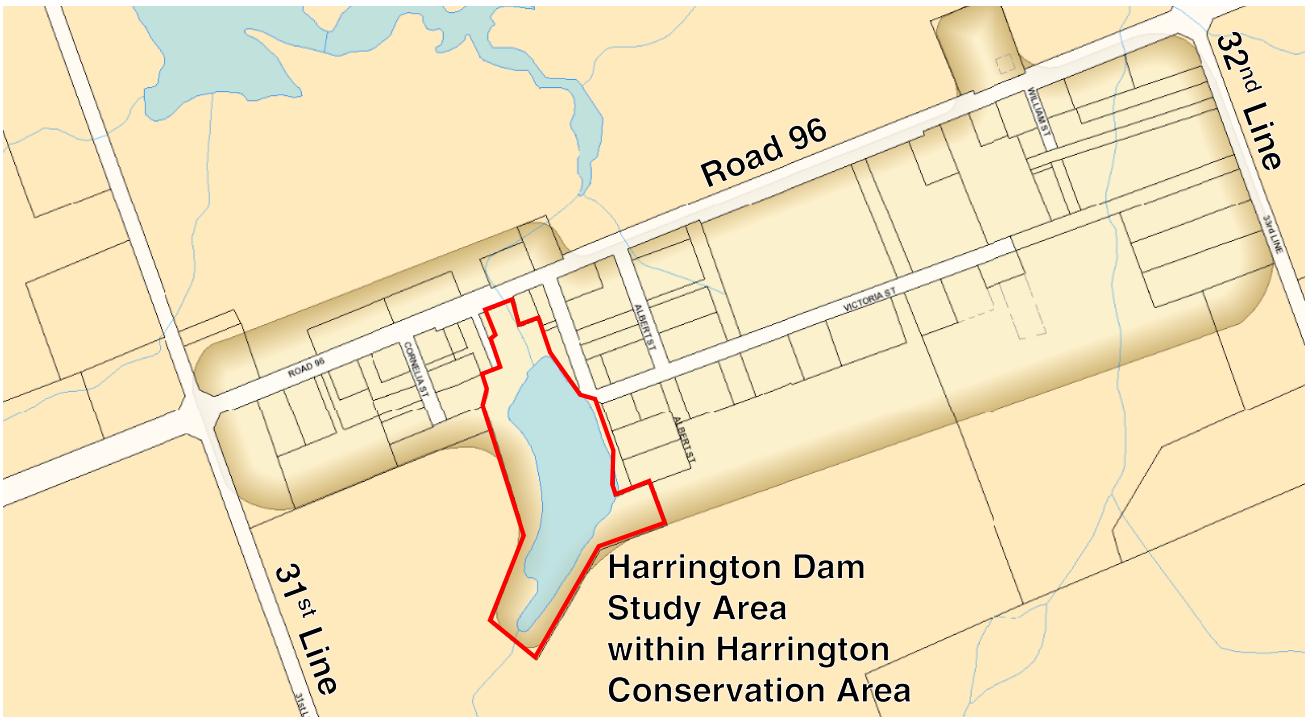
Road 96
32nd Line
31st Line
ROAD 96
CORNELIA ST
ALBERT ST
ALBERT ST
VICTORIA ST
WILLIAM ST
32ND LINE
Harrington Dam
Study Area
within Harrington
Conservation Area

Public Information Centre #2
PIC Presentation Slides

Harrington Dam
Class Environmental Assessment

Public Information Centre #2

Upper Thames River Conservation Authority
Harrington Hall and Library
May 12th, 2016 7:00 p.m. to 9:00 p.m.

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Class Environmental Assessment Process and Problem Statement

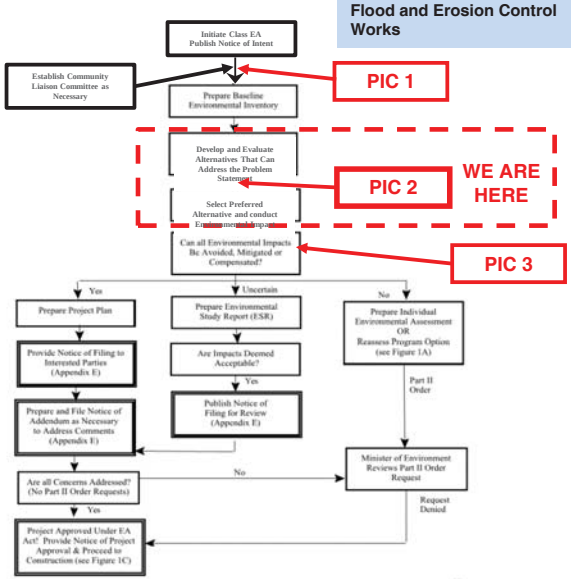
Problem Statement

Significant concerns related to the structural integrity and hydraulic capacity of the Harrington Dam have been identified through recent engineering assessments.

- ***Acres International. July, 2007***. *Dam Safety Assessment Report for Harrington Dam: Identified issues with insufficient spillway capacity, spillway instability and embankment stability*
- ***Naylor Engineering Associates. September 2008***. *Geotechnical Investigation Harrington Dam Embankment Stability Assessment: The existing dam does not meet current standards and is not considered stable under existing conditions*

A Class Environmental Assessment has been initiated to evaluate a range of alternatives to address the identified issues in consideration of the environmental, social, economic, and technical aspects of the dam.

Class EA Process for Conservation Ontario Class Environmental Assessment for Remedial Flood and Erosion Control Works



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Criteria and Evaluation

Information Highlights

Technical/Engineering	Natural Environment
Flooding Impacts/Enhancement Geomorphology/Sediment Transport Protection of Infrastructure Constructability Approvability	Aquatic Habitat Impacts/Enhancement Terrestrial Habitat Impacts/Enhancement Wildlife and SAR Impacts/Enhancement Groundwater Impacts/Enhancement Water Quality Impacts/Enhancement
Social/Cultural	**Economic**
Impact to Private Property Impact to Public Safety Impact to Cultural/Heritage Features Recreational Impacts/Enhancement	Construction Costs Maintenance/Future Costs Availability of Funding

Primary Areas of Site Characterization

Environmental	Technical	Social
Water Quality	Hydraulics and Hydrology	Cultural Heritage
Flow Characteristics	Geomorphology	Archaeology
Vegetation and Wildlife	Sediment	First nations
Aquatic Biology	Structural	

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Environmental

Information Highlights

Water Quality, General

- 4 sampling locations (1 upstream of pond, 2 in pond, 1 downstream of pond), 5 samples were collected at each site

Results:

- General low levels for contaminants measured
  - All parameters were better than average compared with the Upper Thames River watershed for upstream, in, and downstream of pond

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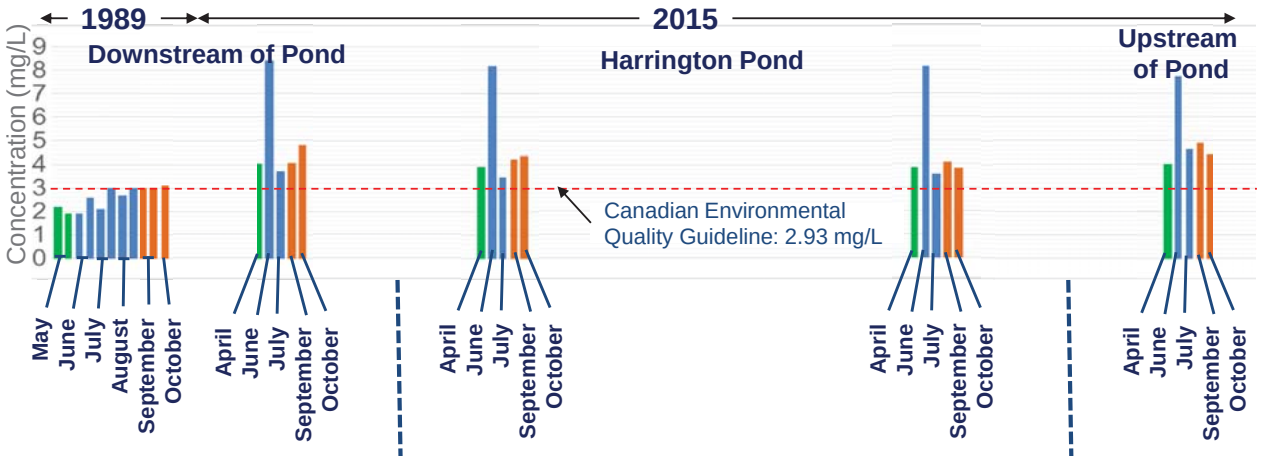
Environmental

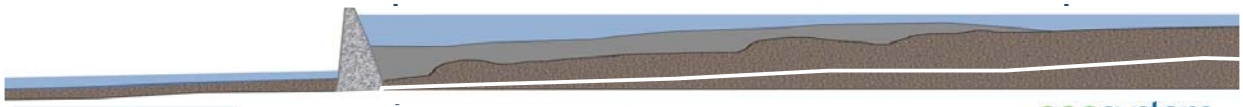
Information Highlights

Nitrate



What does this mean?

- That all nitrate levels are all higher than the CEQG
- That levels are highest in June
- That summer levels are higher downstream compared to upstream
- This indicates that the pond has an impact on nitrate levels at certain times of the year



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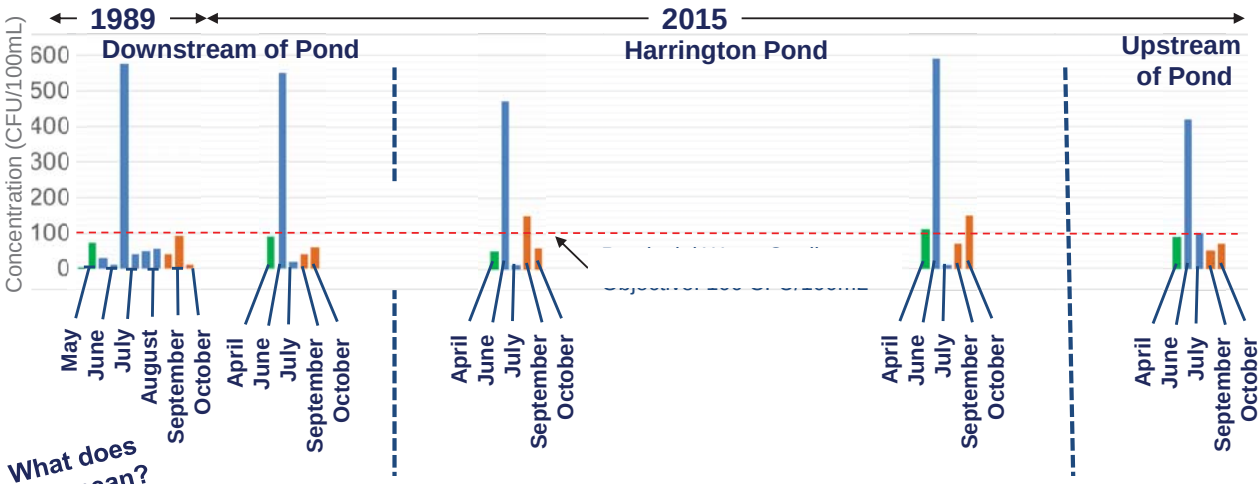
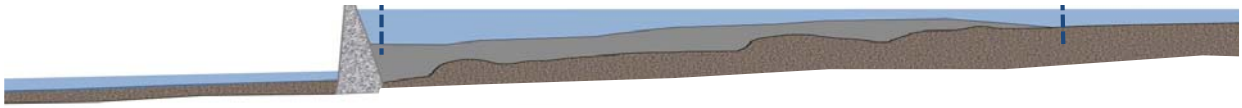
Environmental

E.Coli Information Highlights



What does this mean?

- That all E.coli levels are all higher than the PWQO targets in June and September
- That levels are highest in June
- That summer levels are higher in the pond and downstream compared to upstream
- This indicates that the pond has an impact on E.Coli levels at certain times of the year (June and Fall)



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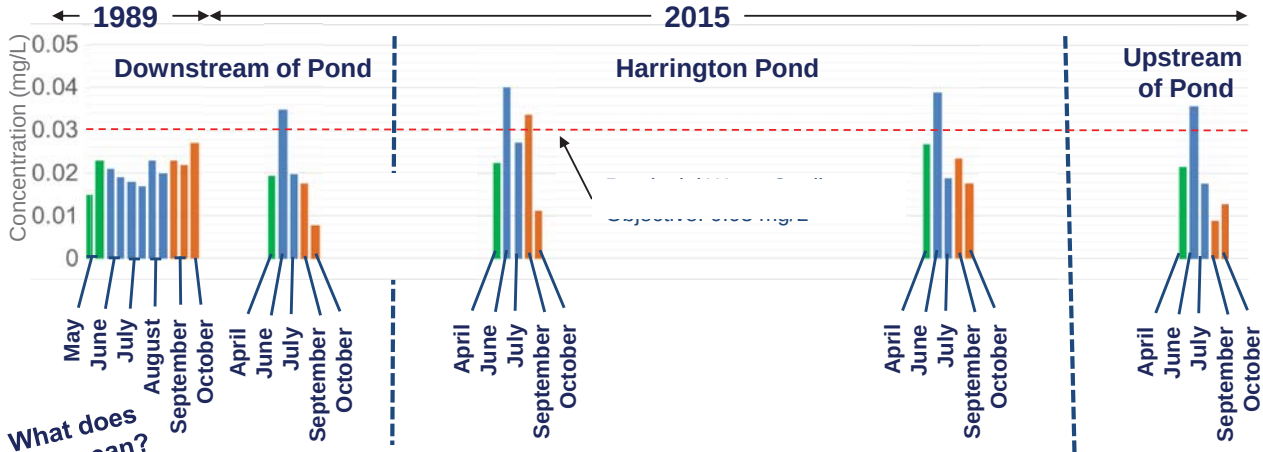
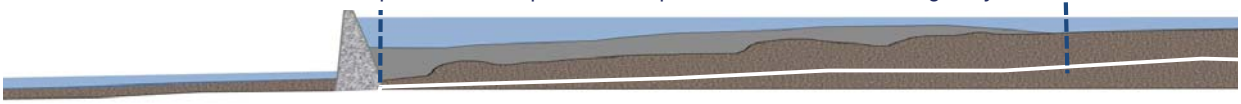
Environmental

Total Phosphorous Information Highlights



What does this mean?

- That Phosphorous levels are all higher than the PWQO targets in June
- That levels are highest in June
- That summer levels are highest in the pond
- This indicates that the pond has an impact on Phosphorous levels overall during the year



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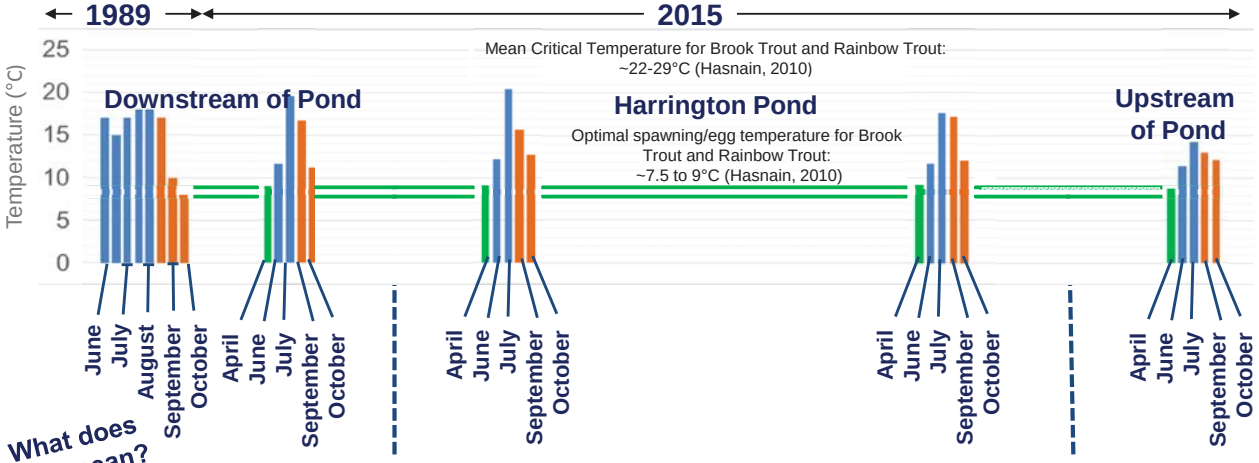
Environmental

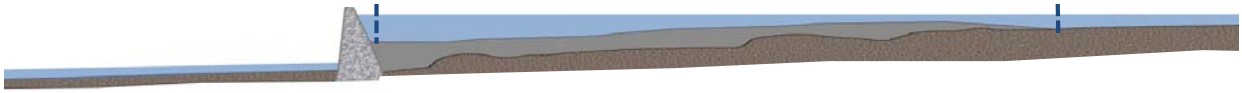
Temperature

Information Highlights



What does this mean?

- That water temperatures are highest in the pond
- That water temperatures are highest in June and September
- That temperatures are higher downstream than upstream
- This indicates that the pond appears to raise water temperatures. This occurs though solar heat gain.



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Environmental

Information Highlights

Flow Characteristics

- Outflow contributed on average 10% of the total flow out of the Trout Creek Subwatershed
- Flow rates downstream of the dam are resilient to drought
- Groundwater input to the pond increases baseflow output downstream of the dam (i.e., base flow increases ~ 7% between upstream and downstream of pond)

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Environmental

Information Highlights

Vegetation and Wildlife

- No Species at Risk or of Special Concern were found during the investigation
  - No critical habitat for sensitive bird species
  - Site is within 100 m of a Provincially Significant Wetland
- Southeast edge of pond is part of larger Oxford Heritage System
- Inventory Findings:
  - 219 plant species found, 40% of species found are non-native
  - 42 species of birds, mostly common breeding or permanent residents
  - Barn Swallow (Threatened) was seen, but not found nesting in the study area
  - Public reports of Snapping Turtles (Special Concern) using the reservoir

Environmental

Information Highlights

Aquatic Biology

- Classified as Shallow Aquatic (i.e., < 2 m depth)
- Pond/Reservoir does not support any native rooted aquatic plants
- Wetland emergent plants found along the pond's shores are common in the area
- Large population of Common Carp contribute to uprooting of plants
- Many of these plant could naturally re-establish along Harrington Creek if disturbed

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Environmental

Information Highlights

Fisheries Resources

- Electrofishing conducted in 2015 (April, July, August, October, and November)

Brook Trout

Rainbow Trout

Image Source: Mandrak and Crossman, 1992

<u>Upstream of Dam (7 species recorded total):</u>
- Brook Trout and Mottled Sculpin
- Habitat suitable for cold water species

<u>Downstream of Dam (30 species recorded total):</u>
- Rainbow Trout, Brook Trout, and Sculpin
- Permanent and seasonal habitat for warm water species
- Minnow and darter (year-round residents)
- Large and Smallmouth Bass, Northern Pike, and Yellow Perch (seasonal residents)
- Coldwater species not likely able to reproduce in this reach

- A large population of Common Carp (an invasive species) were found within the pond

Environmental

Information Highlights

Benthic Resources

- Sampling was conducted in the spring and fall of 2015
- Sample records with the calculated Family Biotic Index (FBI) are shown below:
- Water quality indicators are FAIR to FAIRLY POOR upstream/downstream of the pond

What does this mean?
- That the FBI is 'Fair' upstream of the pond
- That FBI is 'Poor' to 'Fairly Poor' downstream of the pond
- This indicates that the pond has an impact the quality of the benthic resources

Water quality ranges for FBI values

FBI Value	Water Quality
< 4.25	Excellent
4.25 5.00	Good
5.00 5.75	Fair
5.75 6.50	Fairly Poor
6.50 7.25	Poor
> 7.25	Very Poor

Comparison for FBI values for Harrington CA, Trout Creek and UTRCA watersheds

Benthic Sample Location	Spring 2015 FBI	Fall 2015 FBI	Average FBI	Water Quality
Harrington Creek upstream of Harrington Pond	4.68	5.53	5.11	Fair
Harrington creek downstream of Harrington Dam	6.73	5.71	6.22	Fairly poor
Trout Creek watershed 2012	N/A	N/A	6.17	Fairly poor
UTRCA watershed 2015	N/A	N/A	5.68	Fair
Provincial Guideline (target only)	N/A	N/A	< 5.00	Good

Technical

Information Highlights

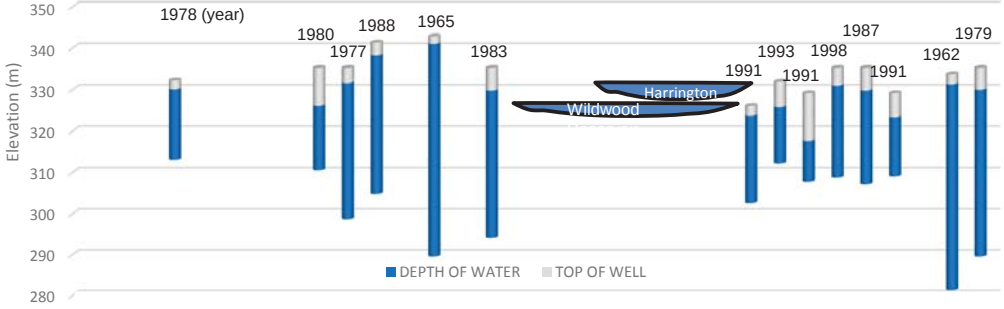
Groundwater

- Groundwater flows along a gradient, from south to north (towards Wildwood Reservoir)
- Soil is characterized as sandy; gravel occurs at the northwest edge
- Soil type suggests high infiltration, and high groundwater recharge

Well Information

- Approximately 22 wells exists in the vicinity of Harrington Pond
- Well water level data were plotted to determine the relative water levels in the area
- Additional work to inventory/map shallow wells will proceed after alternative selection

Well Information



Shallow Wells

- Were not inventoried
- Location of shallow wells will need to be determined
- Shallow well may be affected by a change in head pressure to the shallow aquifer
- Shallow well impacts can be mitigated by installation of deep wells

Technical

Information Highlights

Geomorphology

- Air photo analysis: no change in creek planform and minor change in pond planform between 1955 and 2013
- Three reaches were defined

Reach 1 (Downstream of dam):

- Trapezoidal cross sections set within deeper channel
- Riffle and pool bed sequences
- Cobble and gravel bed materials
- Well vegetated steep banks

Technical

Information Highlights

Geomorphology

Reach 2 (Backwater area):

- Backwater influences from the pond extend ~ 80 m upstream
- Sediment covered bed ~ 56 m upstream of trail bridge
- Cross-sections were uniform in configuration
- Banks well vegetated with grasses and herbaceous plants

Reach 3 (Cedar forest):

- Cross-sections relatively wide and shallow
- Channel bed has riffles and shallow pools
- Planform is somewhat sinuous
- Banks well vegetated banks with herbaceous plants, mosses and cedar trees; woody debris in channel

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Technical

Information Highlights

Sediment Characteristics

Sediment testing was conducted in 2015 to investigate parameters such as:

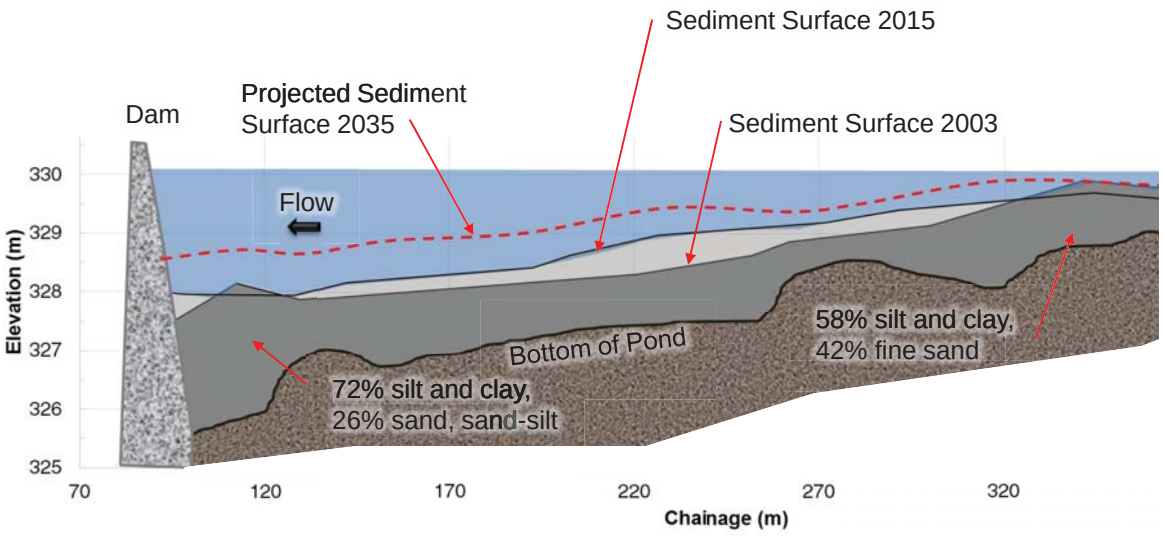
- metals and inorganics
- volatile organic compounds
- petroleum hydrocarbons
- Conductivity
- pH
- grain size analysis

Sediment test results were compared to Ministry of the Environment (MOE) Table 2 Standard, O. Reg. 153/04:

- Two parameters are outside of the MOE limit
  - Cyanide (weak acid dissociable)- over by 0.042 ug/g
  - Boron (hot water extraction)- over by 0.02 ug/g
- Therefore sediment disposal options are limited to:
  - Landfilling
  - Beneficial reuse (potential option but requires further investigation)

Sediment

Average sediment accumulation rate = 292 m³/year



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Technical

Information Highlights

Structural

- Dam impounded volume: 20,000 m^3 (small dam based on storage volume)
- Dam height ~ 4 m
- 65 m embankment on left side, 20 m embankment on right side
- Inflow design flood (IDF) criteria: 50 year, 3 day summer storm

Structural Condition (2002/2003 Dam Safety Assessment)

- Spillway does not have current capacity to pass the IDF
- Spillway structure does not meet stability criteria
- Insufficient freeboard at embankment crests and pedestrian bridge
- Right downstream embankment does not meet slope stability criteria
- Concrete spillway is generally in fair condition
- Last repairs were completed in 2000

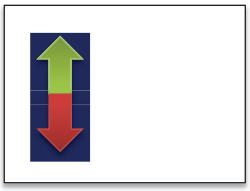
Technical

Information Highlights

Updated Hazard Classification

2007: Dam hazard potential classification (DHC) for Harrington Dam was completed:

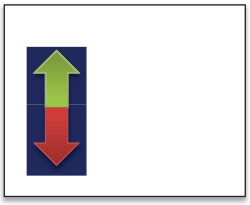
- Loss of Life: VERY LOW
- Economic and Social Losses: VERY LOW
- Environmental Losses: VERY LOW



2011: the Ministry of Natural Resources and Forestry updated the DHC criteria and procedure

2015: Update to the Harrington dam hazard potential classification:

- Life safety: LOW
- Property Losses: LOW
- Environmental Losses: LOW
- Cultural-Built Heritage Losses: LOW



Social

Information Highlights

Cultural Heritage

- Harrington Conservation Area: 5.5 ha (13 acres) for passive recreation and fishing
- Includes hiking trails, fishing and picnic areas
- Interest in preserving and restoring the function of the Grist Mill by the Harrington Area Community Association (HACA)
- In the past: fish stocking/ fish derbies

Social

Information Highlights

Archaeology and First Nations

- Stage 1 Archaeological Assessment was carried out
- No prior archaeological assessments within 50 m of the study areas
- No prior identified archaeological sites within 1 km of the study areas
- Archeological potential was assessed using soils, hydrology, and landform considerations

Findings: The study areas would have been attractive to both Pre-Contact and Euro-Canadian populations as a result of close proximity to water sources, well drained soils and the diversity of local vegetation. The site was found to have archaeological potential.

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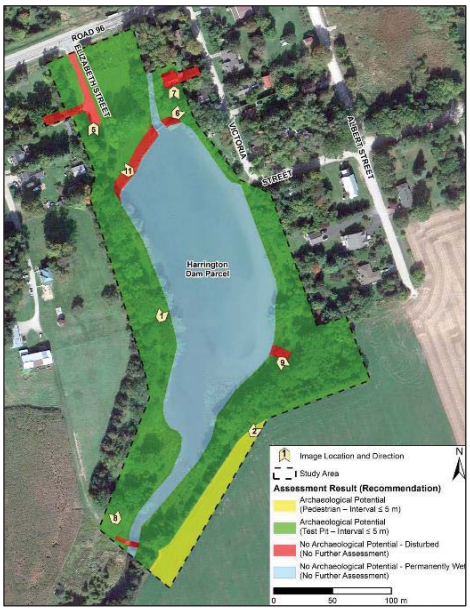
Social

Information Highlights



- 56.5% of the site has archaeological potential, requires pedestrian and test pit survey if any work proposed in area
- 43.5% of the site has no archaeological potential (due to disturbance, or permanent water features)

Watershed Initiatives

Information Highlights

Initiative	Approach
2011 Trout Watershed Action Plan	A plan for targeting areas for rehabilitation, including cold water streams able to support a cold water fishery.
2008 Trout Creek Community based Watershed Strategy	To improve environmental health: Target priority areas, rehabilitate cold water streams, approach landowner participation, work with municipalities, involve students.
2008 Trout Creek Aquatic Enhancement Project	Created a shoal, planted 4700 aquatic plants along Trout Creek. Naturalization continued in 2010/2011 with the planting of 122 trees and 2800 wildflowers.
Private Land Restoration Program	5400 trees planted at 16 rural properties, local schools/ community groups planted over 2700 native shrubs/trees and 5000 aquatic plants.
Clean Water Program	Sine establishment in 2001 as a partnership between local municipalities, rural land owners completed 25 projects including fragile land retirement and erosion control.

Criteria and Evaluation

Information Highlights

Technical/Engineering	Natural Environment
Flooding Impacts/Enhancement Geomorphology/Sediment Transport Protection of Infrastructure Constructability Approvability	Aquatic Habitat Impacts/Enhancement Terrestrial Habitat Impacts/Enhancement Wildlife and SAR Impacts/Enhancement Groundwater Impacts/Enhancement Water Quality Impacts/Enhancement
Social/Cultural	**Economic**
Impact to Private Property Impact to Public Safety Impact to Cultural/Heritage Features Recreational Impacts/Enhancement	Construction Costs Maintenance/Future Costs Availability of Funding

Alternatives

Information Highlights

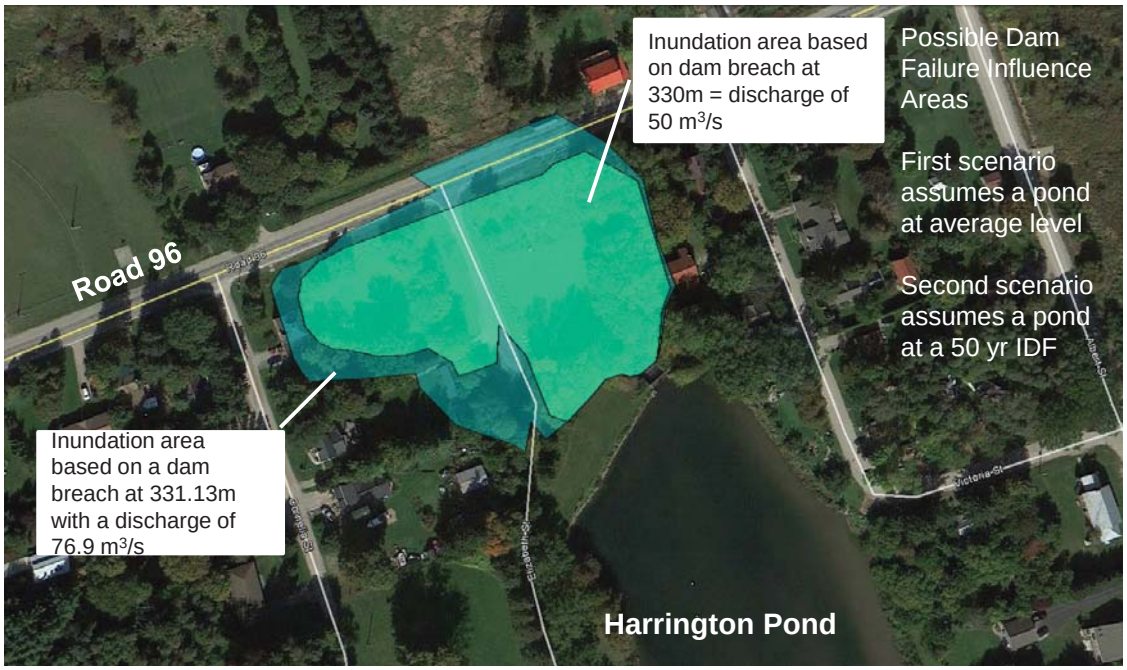
1) Do Nothing
2) Remove Dam and Install a Rocky Ramp
3) Remove Dam and Construct a Natural Channel
4) Remove Dam and Construct an Offline Pond and Natural Channel
5) Replace the Dam with a New Structure Downstream of the Existing Dam Location
6) Replace the Dam with an Earthen Dam of Lower Crest Elevation
7) Reconstruct the Existing Dam in Current Location with New Materials

Alternative 1 – Do Nothing

No intervention would be implemented

Opportunities	Constraints
No immediate cost	Does not meet dam safety guidelines
Maintains current aesthetic	Risk of failure – this can impact channel by flood, erosion and sediment
Maintains current recreational uses	Requires regular monitoring
Maintains current pedestrian pathways	Operational procedures will change in response to geotechnical concerns (fewer logs in place)
	Imposes an impediment to upstream fish passage
	Increase water temperatures seasonally
	Accumulates sediment, will require cleanout over time
	Impedes sediment transport

Predicted inundation limits in the event of a failure



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Do Nothing Considerations

- Under a worst case flood scenario IDF 50yr, there is potential for three buildings to be affected if the dam fails
- A monitoring program will need to identify indicators of future condition
- Loss of material or seepage through the dam and embankment will trigger the removal of stop logs to reduce pressure
- Possible lowering of the pond surface will need to be done to relieve pressure against the structure
- In the event of a failure, sediment will need to be mitigated, the site will need to be re-graded and the remains of the berm and structure will be removed
- Impacts will include the dispersion of sediment to downstream environmental features

Alternative 2 – Remove Dam and Install Rocky Ramp

Remove dam and install a rocky ramp, stabilize remaining channel and provide landscape restoration (off-line system)

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (moderate)
Maintains current pedestrian flow and could provide new pedestrian pathways	Does not reflect the existing open water aesthetic
Removes barrier to upstream migration for some fish species	Has the risk of impacting shallow wells
Increases diversity of fish habitat in channel	
Improves terrestrial habitat	
Enables continuity of sediment transport	
Maintains creek temperatures	
Provides opportunity for new recreational areas and views	

Alternative 3 – Remove Dam and Construct a Natural Channel

Remove dam and construct a natural channel, provide landscape restoration (off-line system)

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (moderate)
Restores a natural channel planform, profile and sections	Does not reflect the existing open water aesthetic
Provides access to upstream fish habitat for all species	Has the risk of impacting shallow wells
Provides diverse fish habitat in channel	
Enables continuity in sediment transport	
Maintains creek temperatures	
Improves terrestrial habitat	
Provides new recreational areas and views	
Provides opportunity for new pedestrian pathways	

Alternative 4 – Natural Channel with Offline Ponds

Remove dam, construct offline ponds and natural channel, provide landscape enhancements (off-line system)

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (high)
Maintains current pedestrian flow and could provide new pedestrian pathways	Has the potential to impact shallow wells, but less risk due to the offline ponded area
Provides diverse fish habitat in creek and pond	
Improves terrestrial habitat	
Provides continuity of sediment transport through channel	
Reduces the risk of temperature impacts on downstream watercourse	
Partial ponded area and views can be maintained	
New recreational areas	

Alternative 5 – Replace Dam

Replace dam with a new structure downstream of the existing dam location (on-line system)

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (very high)
Maintains current aesthetic and views	Sediment continues to accumulate (will require periodic clean-out)
Maintains current recreational areas	Impedes sediment transport
Option to provide fish passage (through a fish passage structure)	Continue to affect downstream water quality
Reduces temperature impacts downstream (through the provision of a bottom draw structure)	
No change in risk to shallow wells	

Alternative 6 – Lower Dam Crest With Natural Channel

Replace dam with an earthen dam of lower crest elevation (on-line system)

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (very high)
Partially maintains current aesthetic	Sediment continues to accumulate (will require periodic clean-out)
Reduces solar heat gain compared to the existing ponded area	Impedes sediment transport
Reduces the magnitude of potential impacts in the event of a breach/failure	Reduces pond surface area (changes aesthetic water view)
Enhances the terrestrial landscape and habitat	No fish passage provided
Minimal risk to shallow wells	Continue to affect downstream water quality
Provides opportunity for trails	

Alternative 7 – Reconstruct Existing Dam

Reconstruct existing dam in current location with new materials (on-line system)

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (very high)
Maintains current aesthetic, recreational areas and views	Sediment continues to accumulate (will require periodic clean-out)
No risk to shallow wells	Impedes sediment transport
	Continues to increase water temperatures downstream seasonally
	No fish passage provided
	Continue to affect downstream water quality

Funding Opportunities

- Upper Thames River Conservation Authority
- Provincial Water and Erosion Control Infrastructure (WECI) (by MNRF)
  - matching annual capital investments to maintain provincial dams and other flood and erosion control installations
  - targeted at projects that improve water quality
- Royal Bank of Canada Blue Water Project
  - local and community based groups ($1000 – $10,000)
- Community Fundraising

Other sources are available but they depend on type of alternative selected.

Next Steps and Contact Information

Next Steps for our project team include:

- **Compile and review feedback from this Public Information Centre**
- **Final criteria and alternatives evaluation completed based on public feedback**
- **Select 'Preferred Alternative' and evaluate environmental impacts**
- **Public Information Centre #3**
- **If impacts can be mitigated, work will proceed to completion and filing of Project Plan**

To provide feedback and comments to the project team, please send all correspondence to the project email address:

harrington_dam@thamesriver.on.ca

For further information please contact:

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UPPER THAMES RIVER CONSERVATION AUTHORITY

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Public Information Centre #2
PIC Presentation Boards

Harrington Dam
Class Environmental Assessment

Public Information Centre #2

Upper Thames River Conservation Authority
Harrington Hall and Library
May 12th, 2016 7:00 p.m. to 9:00 p.m.

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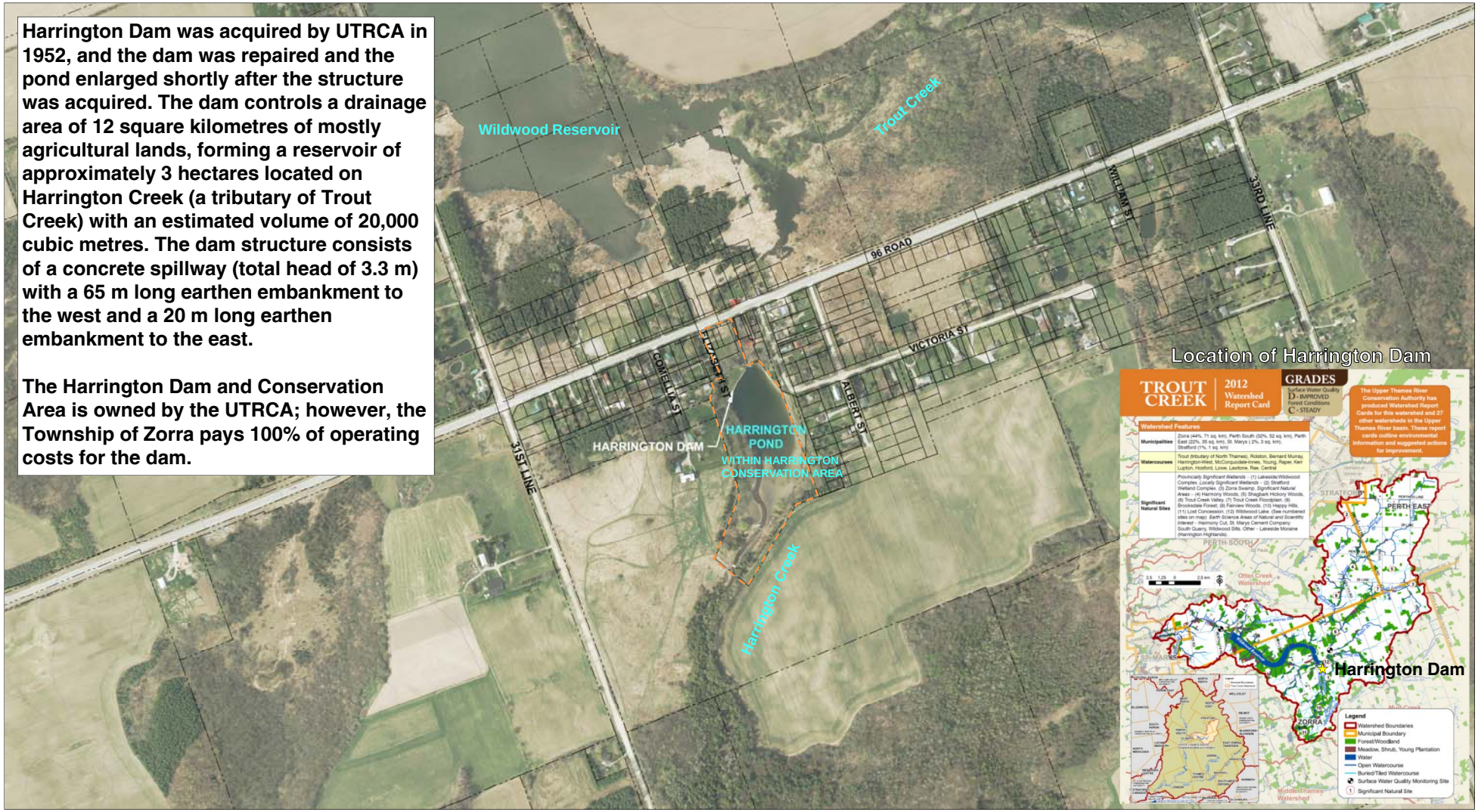
Harrington Dam Study Area

Harrington Dam was acquired by UTRCA in 1952, and the dam was repaired and the pond enlarged shortly after the structure was acquired. The dam controls a drainage area of 12 square kilometres of mostly agricultural lands, forming a reservoir of approximately 3 hectares located on Harrington Creek (a tributary of Trout Creek) with an estimated volume of 20,000 cubic metres. The dam structure consists of a concrete spillway (total head of 3.3 m) with a 65 m long earthen embankment to the west and a 20 m long earthen embankment to the east.

The Harrington Dam and Conservation Area is owned by the UTRCA; however, the Township of Zorra pays 100% of operating costs for the dam.



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Class Environmental Assessment Process and Problem Statement

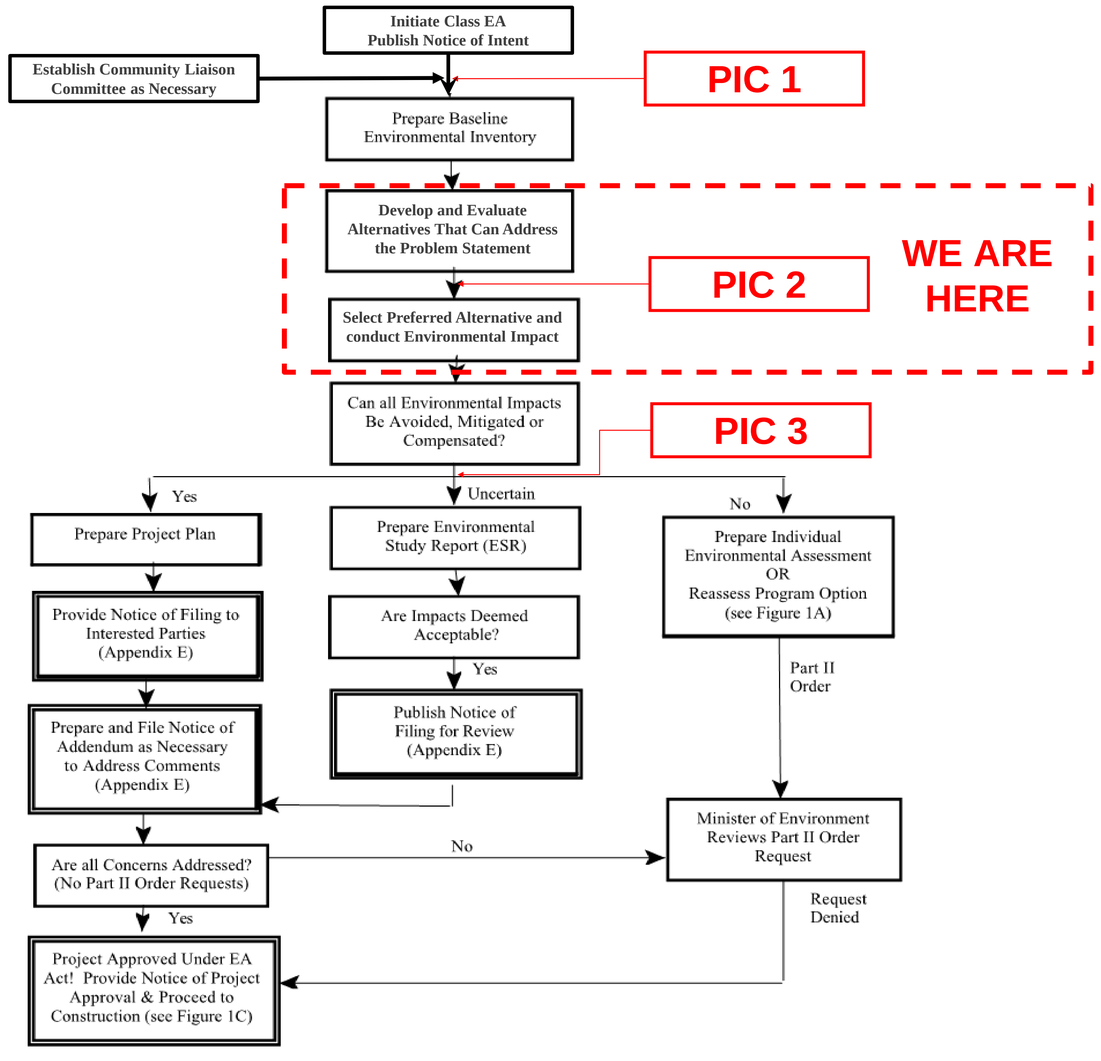
Class EA Process for Conservation Ontario Class Environmental Assessment for Remedial Flood and Erosion Control Works

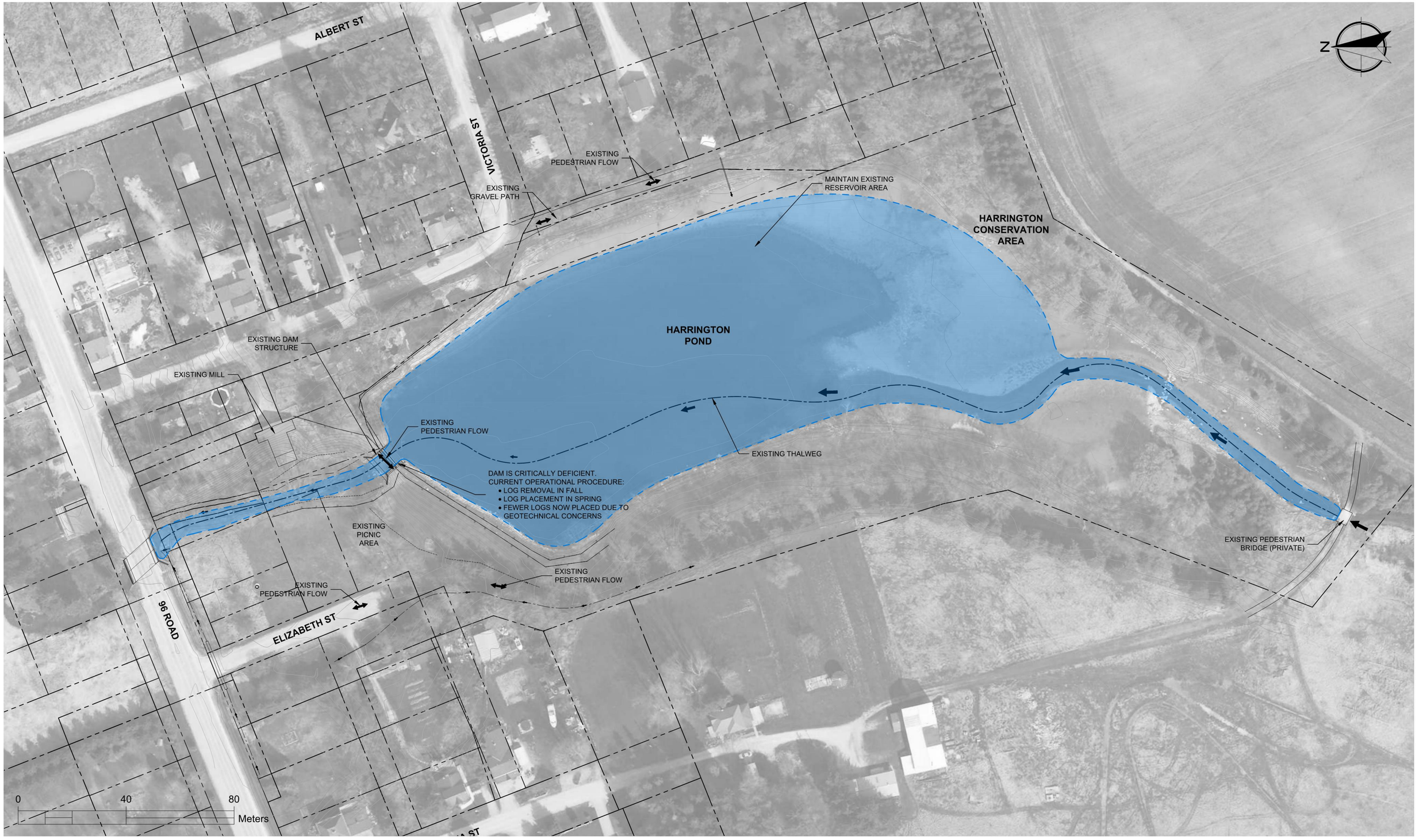
Problem Statement

Significant concerns related to the structural integrity and hydraulic capacity of the Harrington Dam have been identified through recent engineering assessments.

- ***Acres International. July, 2007****. Dam Safety Assessment Report for Harrington Dam: Identified issues with insufficient spillway capacity, spillway instability and embankment stability*
- ***Naylor Engineering Associates. September 2008****. Geotechnical Investigation Harrington Dam Embankment Stability Assessment: The existing dam does not meet current standards and is not considered stable under existing conditions*

A Class Environmental Assessment has been initiated to evaluate a range of alternatives to address the identified issues in consideration of the environmental, social, economic, and technical aspects of the dam.





HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 1 - DO NOTHING

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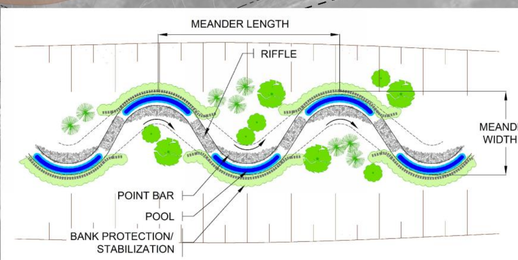
FIGURE 5-1

CORE FEATURES:
- NEW PATHWAYS
- CASCADE
- POTENTIAL FOR HISTORICAL STRUCTURES TO BE REFLECTED IN REMOVAL OPTIONS

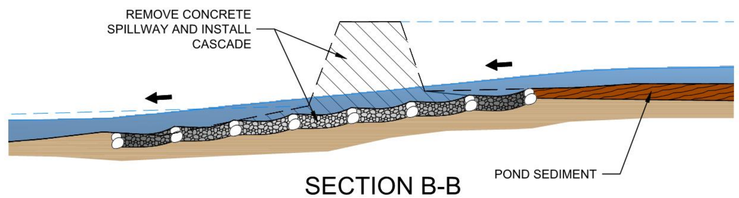
OPTIONAL FEATURES
(subject to funding)
- PEDESTRIAN BRIDGE
- EXPANDED TRAIL
- LOOKOUT

VICTORIA ST
EXISTING GRAVEL PATH
PROPOSED EXPANDED PATHWAY SYSTEM (OPTIONAL)
HARRINGTON POND
HARRINGTON CONSERVATION AREA
PROPOSED LOOKOUT (OPTIONAL)
OPTIONAL: RETAIN EAST ABUTMENT OF DAM STRUCTURE
EXISTING MILL
MAINTAIN EAST EMBANKMENT AS LOOKOUT
POOL
RIFFLE
A
A
B
B
ALLOW CHANNEL TO RESTORE IT'S NATURAL THALWEG
RESERVOIR TO BE DRAINED AND SEDIMENT TO REMAIN
REMOVE CONCRETE SPILLWAY AND INSTALL CASCADE (SIZED TO MEET INFLOW DESIGN FLOOD CRITERIA)
EXISTING PICNIC AREA
REMOVE WEST EMBANKMENT
EXISTING PEDESTRIAN BRIDGE (PRIVATE)
96 ROAD
ELIZABETH ST
COMELLIA ST
0
40
80
Meters

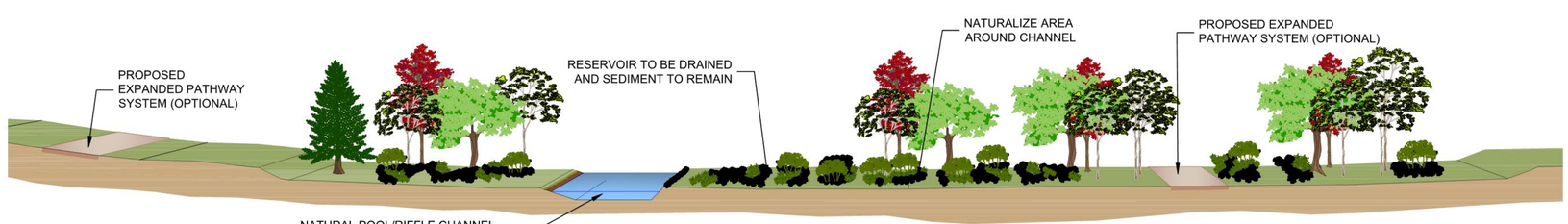


TYPICAL POOL/RIFFLE PLAN


CASCADE



SECTION B-B



SECTION A-A

HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 2 - REMOVE DAM AND INSTALL ROCKY RAMP

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FIGURE 5-2

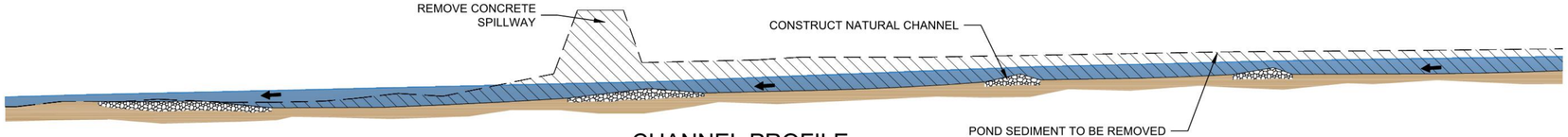
CORE FEATURES:
- NEW PATHWAYS
- NATURAL CHANNEL
- POTENTIAL FOR HISTORICAL STRUCTURES TO BE REFLECTED IN REMOVAL OPTIONS

OPTIONAL FEATURES:
(subject to funding)
- PEDESTRIAN BRIDGE
- EXPANDED TRAIL
- LOOKOUT

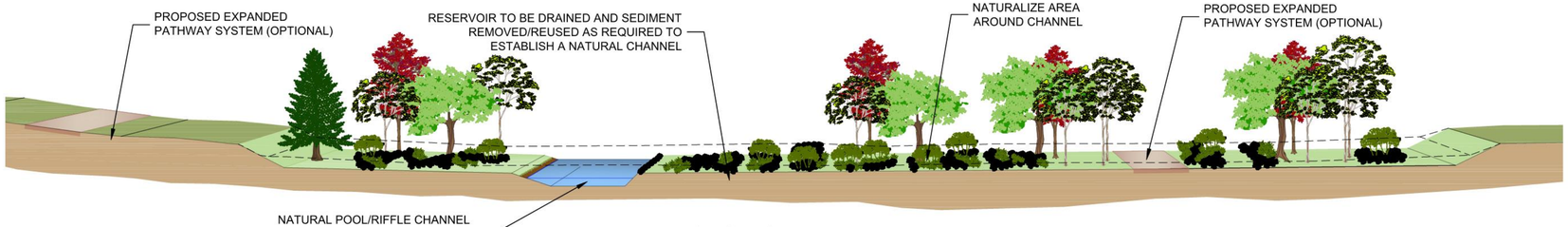
EXISTING GRAVEL PATH
BIOENGINEERING BANK STABILIZATION
PROPOSED EXPANDED PATHWAY SYSTEM (OPTIONAL)
PROPOSED LOOKOUT (OPTIONAL)
OPTIONAL: RETAIN EAST ABUTMENT OF DAM STRUCTURE
HARRINGTON CONSERVATION AREA
EXISTING MILL
MAINTAIN EAST EMBANKMENT AS LOOKOUT
POOL
RIFFLE
HARRINGTON POND
PROPOSED PEDESTRIAN BRIDGE (OPTIONAL)
REMOVE CONCRETE SPILLWAY
EMERGENCY SPILLWAY (RIP RAP) SIZED TO MEET INFLOW DESIGN FLOOD CRITERIA
CONSTRUCT NATURAL POOL/RIFFLE CHANNEL IN AREA OF EXISTING RESERVOIR
EXISTING PEDESTRIAN BRIDGE (PRIVATE)
RESERVOIR TO BE DRAINED AND SEDIMENT REMOVED/REUSED AS REQUIRED TO ESTABLISH A NATURAL CHANNEL
REMOVE WEST EMBANKMENT
96 ROAD
ELIZABETH ST
A
A
N

REALIGNED CREEK

0 40 80 Meters



CHANNEL PROFILE



SECTION A-A

HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 3 - NATURAL CHANNEL
REMOVE DAM AND CONSTRUCT NATURAL CHANNEL

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FIGURE 5-3

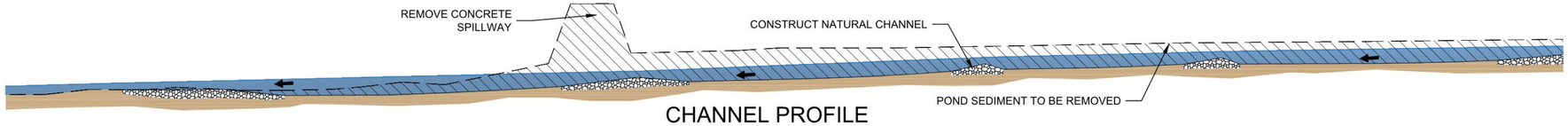
FEATURES:
- NEW PATHWAYS
- NATURAL CHANNEL
- SAFE SLOPES
- EMBANKMENTS
- SHOALS
- SHORELINE ENHANCEMENTS
- POTENTIAL FOR HISTORICAL STRUCTURES TO BE REFLECTED IN REMOVAL OPTIONS

OPTIONAL FEATURES:
(subject to funding)
- PEDESTRIAN BRIDGE
- EXPANDED TRAIL
- LOOKOUT
- SLUICE BYPASS CHANNEL

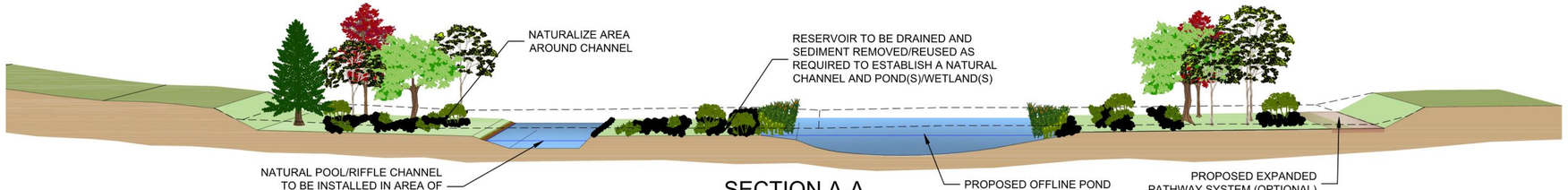
VICTORIA ST
EXISTING GRAVEL PATH
PROPOSED LOOKOUT
SLUICE A BYPASS CHANNEL TO DIVERT FLOW TO HISTORIC MILL (OPTIONAL)
PROPOSED LOOKOUT (OPTIONAL)
EXISTING MILL
MAINTAIN EAST EMBANKMENT AS LOOKOUT
REMOVE CONCRETE SPILLWAY
EMERGENCY SPILLWAY (RIP RAP) SIZED TO MEET INFLOW DESIGN FLOOD CRITERIA
REMOVE WEST EMBANKMENT
96 ROAD
ELIZABETH ST
POND
HARRINGTON POND
POOL
RIFFLE
EXCAVATE DEEP PONDS TO ACCESS LOCAL GROUNDWATER RESOURCES
PROPOSED EXPANDED PATHWAY SYSTEM (OPTIONAL)
HARRINGTON CONSERVATION AREA
FLOODPLAIN CONNECTION TO OFFLINE POND
RESERVOIR TO BE DRAINED AND SEDIMENT REMOVED/REUSED AS REQUIRED TO ESTABLISH A NATURAL CHANNEL
EXISTING PEDESTRIAN BRIDGE (PRIVATE)
A
A
Z

0 40 80 Meters

POND WITH CREEK



CHANNEL PROFILE



SECTION A-A

HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 4 - NATURAL CHANNEL WITH OFFLINE PONDS
REMOVE DAM - CONSTRUCT OFFLINE PONDS AND NATURAL CHANNEL

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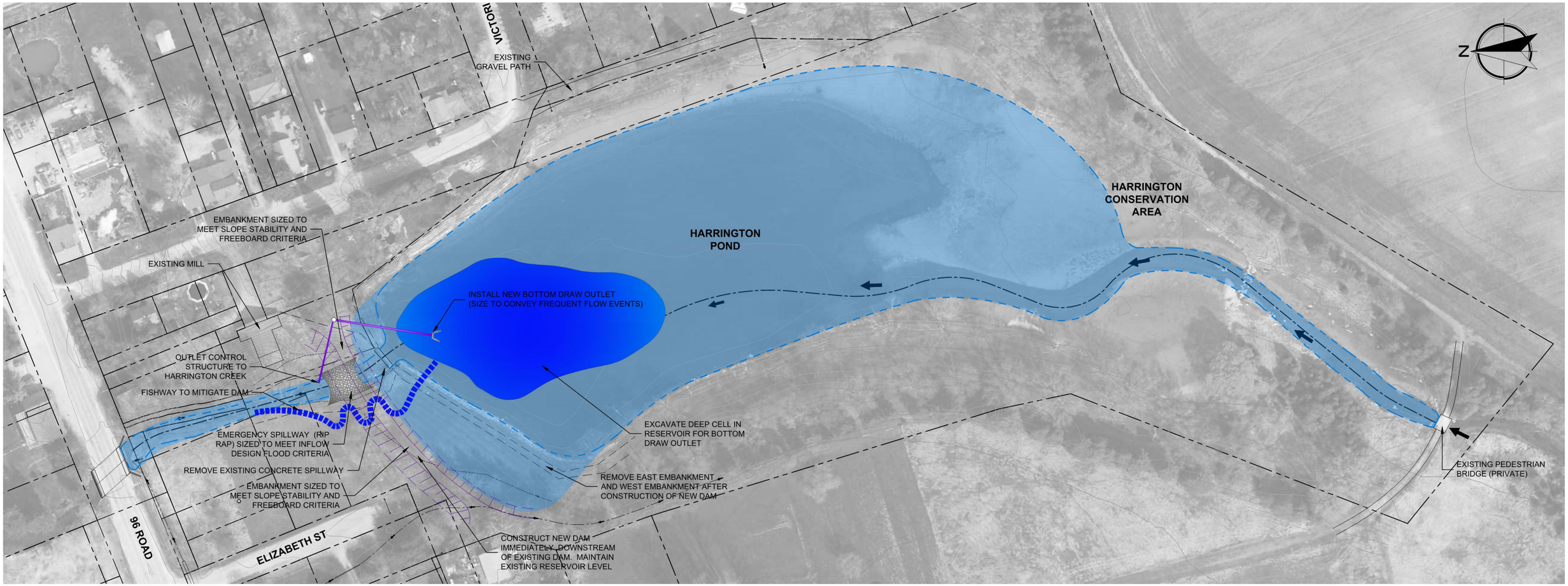
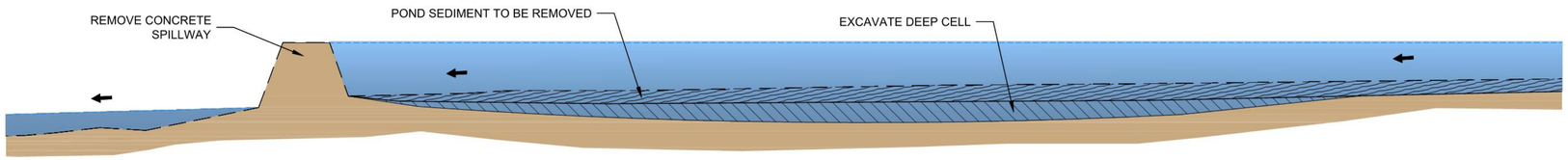
FIGURE 5-4



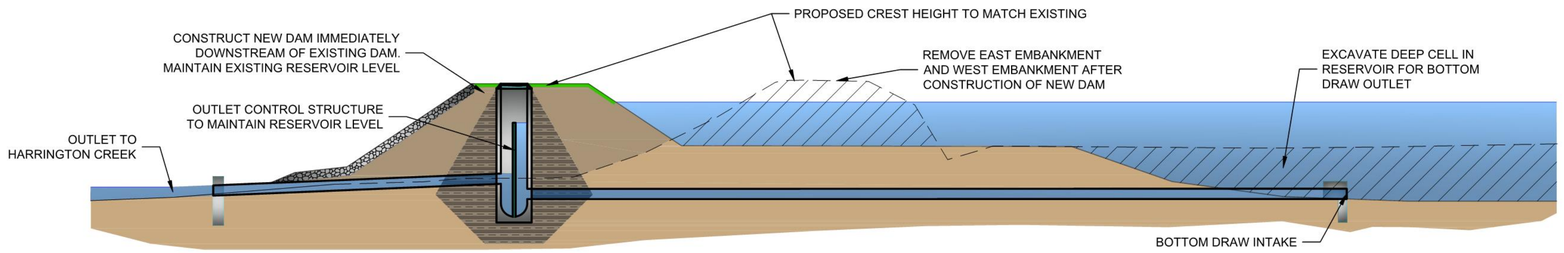
FEATURES:
- NEW PATHWAYS
- PEDESTRIAN CROSSING
- LOOKOUT
- NATURAL CHANNEL
- SAFE SLOPES
- EMBANKMENTS
- BOTTOM DRAW STRUCTURE
- POTENTIAL FOR HISTORICAL STRUCTURES TO BE REFLECTED IN REMOVAL OPTIONS
- FISH PASS STRUCTURE

OPTIONAL FEATURES:
(subject to funding)
- PEDESTRIAN BRIDGE(S)
- EXPANDED TRAIL
- LOOKOUT

MEANDERING FISHWAY AROUND DAM



EXISTING CHANNEL PROFILE AND REMOVALS



SECTION THROUGH PROPOSED DAM

0 40 80 Meters

HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 5 - REPLACE DAM
REPLACE DAM WITH A NEW STRUCTURE DOWNSTREAM OF THE EXISTING DAM LOCATION

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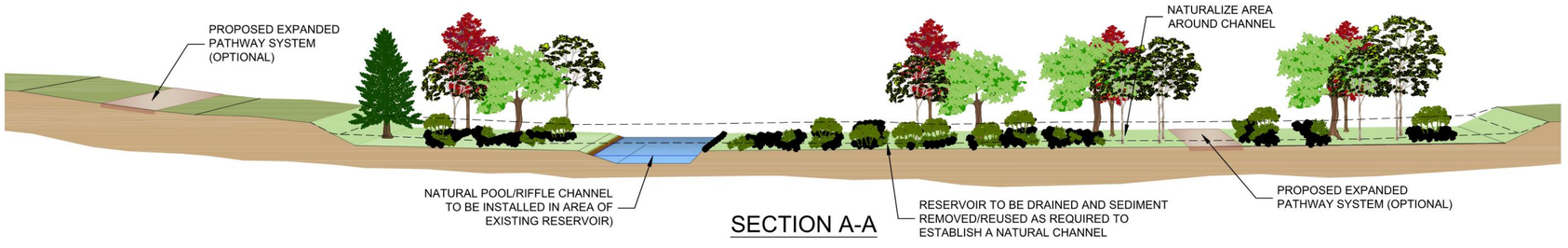
FIGURE 5-5

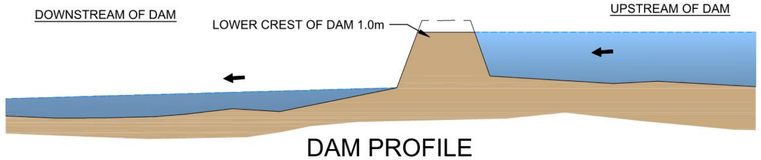
FEATURES:
- NEW PATHWAYS
- LOOKOUT
- NATURAL CHANNEL
- SAFE SLOPES
- EMBANKMENTS
- BOTTOM DRAW STRUCTURE
- SHORELINE ENHANCEMENT
- POTENTIAL FOR HISTORICAL STRUCTURES TO BE REFLECTED IN REMOVAL OPTIONS

OPTIONAL FEATURES:
(subject to funding)
- PEDESTRIAN BRIDGE(S)
- EXPANDED TRAIL
- LOOKOUT

VICTORIA ST
EXISTING GRAVEL PATH
PROPOSED PATHWAY SYSTEM (OPTIONAL)
A
HARRINGTON CONSERVATION AREA
CONSTRUCT NEW EARTHEN DAM WITH APPROXIMATELY 1.0m LOWER CREST
EXISTING GRIST MILL
OUTLET CONTROL STRUCTURE TO HARRINGTON CREEK
INSTALL NEW BOTTOM DRAW OUTLET (SIZE TO CONVEY FREQUENT FLOW EVENTS)
HARRINGTON POND
POOL
RIFFLE
BIOENGINEERING BANK STABILIZATION
OPTION (ENHANCEMENT) PEDESTRIAN BRIDGE OVER DAM
EMERGENCY SPILLWAY (RIP RAP) SIZED TO MEET INFLOW DESIGN FLOOD CRITERIA
EMBANKMENT SIZED TO MEET SLOPE STABILITY AND FREEBOARD CRITERIA
RESTORE NATURAL CHANNEL UPSTREAM OF SMALLER RESERVOIR
EXISTING PEDESTRIAN BRIDGE (PRIVATE)
96 ROAD
ELIZABETH ST
N



SECTION A-A



DAM PROFILE

EXISTING HARRINGTON DAM

NATURAL CHANNEL

0 40 80 Meters

HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 6 - LOWER DAM CREST WITH NATURAL CHANNEL
REPLACE DAM WITH AN EARTHEN DAM OF LOWER CREST ELEVATION

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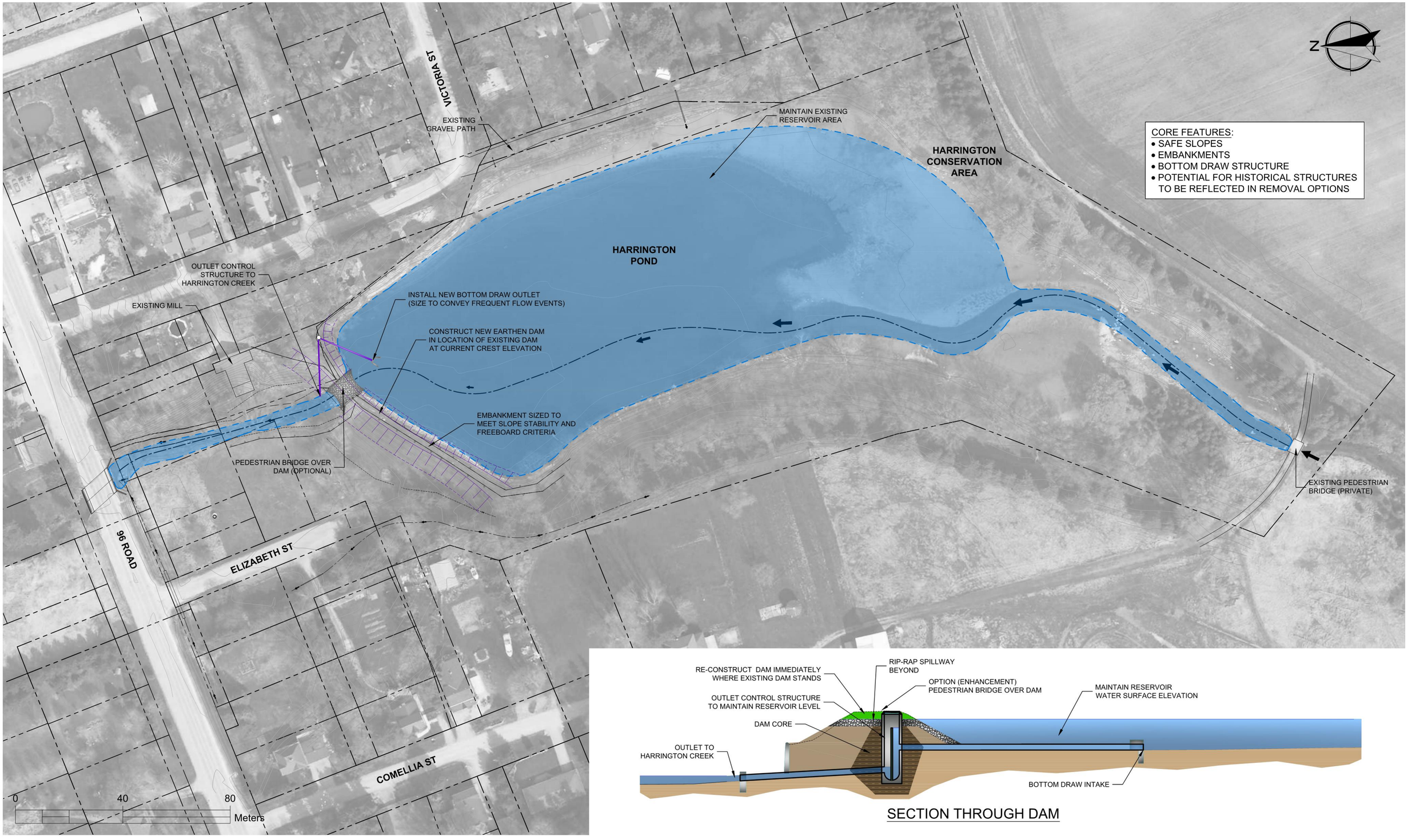
FIGURE 5-6



SECTION THROUGH DAM

HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 7 - EXISTING DAM
RECONSTRUCT EXISTING DAM IN CURRENT LOCATION WITH NEW MATERIALS

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FIGURE 5-7

Opportunities and Constraints

Alternative 1 – Do Nothing

No intervention would be implemented

Opportunities	Constraints
No immediate cost	Does not meet dam safety guidelines
Maintains current aesthetic	Risk of failure – this can impact channel by flood, erosion and sediment
Maintains current recreational uses	Requires regular monitoring
	Operational procedures will change in response to geotechnical concerns (fewer logs in place)
Maintains current pedestrian pathways	Imposes an impediment to upstream fish passage
	Increase water temperatures seasonally
	Accumulates sediment, will require cleanout over time
	Impedes sediment transport

Alternative 2 – Remove Dam and Install Rocky Ramp

Remove dam and install a rocky ramp

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (moderate)
Maintains current pedestrian flow and could provide new pedestrian pathways	Does not reflect the existing open water aesthetic
Removes barrier to upstream migration for some fish species	Has the risk of impacting shallow wells
Increases diversity of fish habitat in channel	
Improves terrestrial habitat	
Enables continuity of sediment transport	
Maintains creek temperatures	
Provides opportunity for new recreational areas and views	

Alternative 3 – Remove Dam and Construct a Natural Channel

Remove dam and construct a natural channel

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (moderate)
Restores a natural channel planform, profile and sections	Does not reflect the existing open water aesthetic
Provides access to upstream fish habitat for all species	Has the risk of impacting shallow wells
Provides diverse fish habitat in channel	
Enables continuity in sediment transport	
Maintains creek temperatures	
Improves terrestrial habitat	
Provides new recreational areas and views	
Provides opportunity for new pedestrian pathways	

Alternative 4 – Natural Channel with Offline Ponds

Remove dam, construct offline ponds and natural channel

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (high)
Maintains current pedestrian flow and could provide new pedestrian pathways	Has the potential to impact shallow wells, but less risk due to the offline ponded area
Provides diverse fish habitat in creek and pond	
Improves terrestrial habitat	
Provides continuity of sediment transport through channel	
Reduces the risk of temperature impacts on downstream watercourse	
Partial ponded area and views can be maintained	
New recreational areas	

Alternative 5 – Replace Dam

Replace dam with a new structure downstream of the existing dam location

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (very high)
Maintains current aesthetic and views	Sediment continues to accumulate (will require periodic clean-out)
Maintains current recreational areas	Impedes sediment transport
Option to provide fish passage (through a fish passage structure)	Continue to affect downstream water quality
Reduces temperature impacts downstream (through the provision of a bottom draw structure)	
No risk to shallow wells	

Alternative 6 – Lower Dam Crest With Natural Channel

Replace dam with an earthen dam of lower crest elevation

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (very high)
Partially maintains current aesthetic	Sediment continues to accumulate (will require periodic clean-out)
Reduces solar heat gain compared to the existing ponded area	Impedes sediment transport
Reduces the magnitude of potential impacts in the event of a breach/failure	Reduces pond surface area (changes aesthetic water view)
Enhances the terrestrial landscape and habitat	No fish passage provided
Minimal risk to shallow wells	Continue to affect downstream water quality
Provides opportunity for trails	

Alternative 7 – Reconstruct Existing Dam

Reconstruct existing dam in current location with new materials

Opportunities	Constraints
Removes the risk of dam failure	Imposes restoration costs (very high)
Maintains current aesthetic, recreational areas and views	Sediment continues to accumulate (will require periodic clean-out)
No risk to shallow wells	Impedes sediment transport
	Continue to increase water temperatures downstream seasonally
	No fish passage provided
	Continue to affect downstream water quality

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Meeting Minutes

B1-550 Parkside Drive, Waterloo, Ontario, N2L 5V4
Tel 519.621.1500 ■ Fax 226.240.1080

Project:	Harrington and Embro Dam EAs	**Meeting No.:**	PIC 2
		Meeting Date:	May 12, 2016
Project No.:	1505	**Meeting Time:**	7 – 9 pm
Recorder:	M. Pushkar	**Report date:**	May 26, 2016

Location:	Harrington Hall and Library – 539 Victoria Street, Harrington, ON
Attendees:	Rick Goldt, Bill Mackie, Karen Winfield (UTRCA) Wolfgang Wolter, Mariëtte Pushkar (ERI) Don MacLeod, Doug Matheson, Marcus Ryan, Margaret Lupton (Zorra Township) Members of the Public (17)
Purpose:	Public Information Centre 2 – Harrington Dam

Item	Description	Action By
1.	**Presentation** • Presentation of study findings, evaluation criteria and alternatives was made by Wolfgang Wolter (ERI)	Info
2.	**Questions posed by members of the public and answers provided by team:** **1. What is the scale of the creek on the drawings? What would the actual width be?** The creek width would be based on existing conditions/upstream characteristics. **2. All hazards were lowest in all categories; therefore is there no real hazard?** MNRF focuses on life/property hazards (e.g. loss of life) and this is ranked low (although a risk still exists for loss of life). Environmental damage due to dam failure should still be considered (e.g. sediment loading, habitat loss, erosion etc.) **3. If the amount of wells affected is not known, how can the cost be assessed?** The cost to drill deeper wells would be in the order of $6,000 to 8,000 per well ; this is considered to be a small portion of the overall costs. **4. Has the Cultural Heritage been sufficiently considered?** <u>Public input:</u> • Village was create because of pond (170 years ago) • Mill is being restored as an educational feature - there has been a historic relationship between mill and pond • If pond is removed, then the purpose of the mill is less obvious and there will be a loss of connection to the past • The pond may be eligible for Heritage Feature Designation as per Heritage Act – has this been explored? • No – this has not been explored by UTRCA • A lot of background information on Harrington has been assembled by the public – they will pass it on to the study team <u>Team Clarification</u> • UTRCA/ERI are not working with the Ministry of Culture and Tourism. We are following the process of a Class EA. The archaeological report is posted and available.	

- Our point of contact person at the Ministry of Culture and Tourism will be provided:
  - Penny Young: 416.212.7420

5. How will dredging of sediment/monitoring be implemented?

- The pond has not been dredged for many years
- Sediment would be tested for disposal options.

6. The existing sediment is very mushy/smelly; how would it be dealt with it when creating the creeks?

- The existing sediment would be removed, where required, the creek would be constructed and the sediment would be stabilized (vegetated).

7. Archaeological study was well done. What would be done if there is an archaeological finding?

- A Stage 2 Archaeological Assessment would need to be done prior to construction
- If any findings, the work would stop immediately and the findings would need to be reclaimed.

8. Can panels stay for review?

- Yes

9. For the option of building a new dam structure downstream of the existing dam, how far downstream would it be constructed?

- The structure would be constructed as close as possible to the existing location, with consideration given to the design needs.

10. At previous PIC, residents came up with a bird inventory. Water birds mentioned in report but none identified as nesting. Residents indicated there were ducklings (not included in report). Why does habitat for fish take precedence over water fowl?

- Water fowl are included in consideration of diversity (e.g. habitat diversity)

11. Is the pond beneficial to Wildwood because it traps sediment?

- The pond does trap some sediment but is only a small portion of Wildwood contributing area.

12. Discussion about 1962 event in which the pond was drained and strong odors occurred

- The odor is likely due to nutrients being exposed and the decomposition of algae within the pond.

Some of the alternatives do not require sediment removal. If there is an odour, from the sediment then this may cause residents to relocate. With any of the alternatives, sediment seems to be an issue, why not just dredge?

- The issue is not the pond sediment, but the safety of the dam.

If there is a low ranking of risk based on dam failure, why the urgency to mitigate issues?

- The low ranking is for risk to the public (loss of life or property). There is a risk of failure and associated environmental effects as well as risk to the public. Therefore, action was recommended in the dam assessment reports; UTRCA is following recommendations from those reports.

When did the dam last fail? 1940s?

- The dam came close to failure in June 2000 due to intense rain storms. Remediation work was carried out over the course of a week and was at risk of failure; thankfully predicted precipitation events did not occur. The dam does not have adequate capacity for design storms

13. The biggest issue with the remediation is cost. Is it possible to estimate the cost of the options, so that they can better evaluate?

- Only relative cost estimates have been provided. There are different options and enhancements that can be incorporated that would add additional costs (costs are being developed).

14. How do you naturalize an area made into a park?

- A landscape architect would complete the design and take into consideration; public interests, natural connectivity, natural resources (park, etc.). The overall objective would be to have the design be maintenance free. The design work recognizes the existing park use and would focus primarily on the footprint of the pond and dam.

15. Where will the funding come from?

- There are various funding sources available for restoration and removals such as; government, community funds and infrastructure funding.

What would occur if the preferred alternative was selected however, no funding was available?

- Continued management of the dam would occur until the preferred alternative is implemented to reduce risk of failure (i.e., remove the logs, work step by step)

The fire department uses the water from the pond. How does fire safety factor into everything?

- The fire department is looking into implementing a cistern.

16. What is the Oxford Natural Heritage System?

- This refers to the area that is considered to be an important terrestrial and aquatic resource within the county. This includes woodlands and natural areas feature in the natural landscape.

17. Do any alternatives provide opportunity to generate electricity?

- The option for implementing micro hydro (using turbines) is expensive and would require a business plan. This could be incorporated into any “dam retention” option.

18. If new dam option was chosen, would the sediment be removed?

- Sediment would be removed to optimize function of the pond and dam.

Can you utilize a forebay to collect sediment?

- Yes, a forebay area could be provided; the volume of sediment loading could decrease in the future based on changing landuse – this would reduce the amount of dredging required for future maintenance.

19. Does the rocky ramp lower the pond elevation?

- Yes it does, because of the footprint of the ramp and the need to connect to the pond below the crest of the embankment

	20. If preferred alternative is chosen, what is the timeline for implementation? • It is difficult to estimate the timeline. UTRCA has used up most of its funding for this study. The EA process allows 5 years. **21. Are the drawings presented ideas/concepts?** • Yes, the boards are only ideas/concepts. Analyses to determine all parameters would occur at the detailed design stage; additional factors will then also be considered and incorporated into the design. **22. What are the next steps?** • Address comments from the public • Develop an evaluation matrix with equal weighting for each category • Select preferred alternative and provide a more detailed concept • File the EA study and address any additional concerns communicated • An opportunity for the public to initiate an order request to the Ministry of Environment and Energy can be made. **23. Everyone has lived through old buildings being torn down because it is cheaper than preserving heritage. Mill is being restored but requires the pond for context. Therefore the pond is important to Mill history and context** **24. Does the report identify where embankment is unstable?** • The embankment is unstable because of peat. If the soil is inundated, it loses strength and leads to failure. **Could interim measures be implemented?** • MNRF process would be implemented because of repair which requires an assessment to be completed and then informs you how to proceed.	

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

Public Information Centre – Comment Form

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Public consultation is a key component of this study. This Public Information Centre (PIC) is held to receive public input on the possible future alternatives for the Harrington Dam. Any feedback and comments provided will become part of the public record for this project.

Please provide your comments in the areas that interest you.

Comments:

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 – Do Nothing

Alternative 2 – Remove Dam and Install Rocky Ramp

Alternative 3 – Remove Dam and Construct a Natural Channel

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam

Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

The Alternative that I like the most is Alternative: 1 2 3 4 5 6 7 (Please Circle)

Other things that have not been discussed but which the study team should consider?

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: _____

Address & Postal Code: _____

E-mail Address: _____

Please submit comments by June 2, 2016

Thank you for your participation.

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UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Sign-in Sheet

PUBLIC INFORMATION CENTRE 2
May 12, 2016

Name	Address	Contact Number
Tom McCann	[redacted]	
Tom Kittmer		
Doug Matheson		
Gail Smith		
Nancy Skillings		
Sean Breslin		
Philip Kerr		
Bill Matheson		
Katherine Grieve		
Caleb Sprague		

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UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Sign-in Sheet

PUBLIC INFORMATION CENTRE 2
May 12, 2016

Name	Address	Contact Number
SHERRI HAMILTON	[redacted]	
Margaret Lupton		
BRENDA KRANTZ		
Tom Cottenie		
Don MacLeod		
Tim VAN DE KEMP		
Marcus Ryan		
Sam Coghlan		
Cher Sprague		
Eugene Lum		
Seana McKenna		

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UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Public Information Centre – Comment Form

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Please provide your comments in the areas that interest you.

Comments: The Harrington case is unique in that the pond is an historical feature central to the founding of the village. I think this cultural facet is underrepresented.

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 – Do Nothing

- Probably the best alternative letting nature evolve gently.

Alternative 2 – Remove Dam and Install Rocky Ramp

disruptive & unnatural

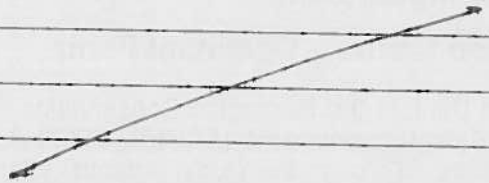
Alternative 3 – Remove Dam and Construct a Natural Channel

- not interesting in seasonal levels

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

- likely to attract mosquitos

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam



Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

- A great idea but the most expensive

The Alternative that I like the most is Alternative: (1) 2 3 4 5 6 7 **(Please Circle)**

Other things that have not been discussed but which the study team should consider?

Emphasis on the Cultural/Historical significance

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: SEAN BRENNAGH

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by June 2, 2016

Thank you for your participation.

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From: Ian Ring <[redacted]
To: "harrington_dam@thamesriver.on.ca" <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 6/2/2016 9:38 PM
Subject: Rebuild the Harrington Dam

Dear Mr. Goldt,
I have many cherished memories of the Harrington pond. I would like it to be preserved. My great-grandparents and grandparents farmed and lived in that area, are buried nearby, and my parents were married in Harrington church on the hill.
I still go there on lovely summer days to enjoy the peaceful scenery, and own children recognize that the Harrington pond has a prominent role in their own heritage.

Please register my vote to restore the dam (#7 option), and it would be nice if there was a way for pedestrians to cross over it too.

Cheers
Ian Ring

From: Nancy Skillings <[redacted]>
To: "harrington_dam@thamesriver.on.ca" <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 6/2/2016 9:38 PM
Subject: Harrington Dam survey.... Attention Rick Goldt C.E.T.

Dear Mr Goldt,

I am a resident of Harrington, having lived here almost 16 years. When explaining where I live, many people know Harrington because of the mill pond, as many people have childhood and adult memories of fishing at this pond. I have come to realize and appreciate just what a historical part the mill and mill pond are to this area. They are a core part of the community and the surrounding area. I live across from the mill and am amazed at how many people come to inquire about and visit the mill and pond area. It is indeed a valuable historical landmark. The mill is a direct connection to the mill. Without a mill pond the future of the mill is forever changed.

I congratulate and admire the work and dedication of the people in this community that have worked to preserve the mill and feel strongly that their efforts and commitment should be recognized and considered in the future planning of the pond. I feel that whatever decisions are made in regard to the Harrington Dam, they need to ensure a system that can connect water source to the mill that is strong enough to run the water wheel.

I have attended several meetings over the years where discussions and plans for the future of the Harrington dam have been presented. I have engaged in conversations with people that have been part of Harrington for a much longer time than I, as well as new people that have moved into the community and people feel strongly that the protection of the mill pond is of utmost importance.

I have studied the seven plans that were presented at the recent meeting at the Harrington hall.

I congratulate you and your team that have spent long hours and much effort into the research and plans you have presented.

I feel that the preservation of the existing dam is the priority, so if changes are necessary then reconstructing with new materials in the current location would seem the best plan.

I felt I would like to send my thoughts in a letter rather than the survey form.

I hope this is acceptable as input for the survey.

Sincerely

Nancy Skillings

[redacted]

From: Anna Hewitt [redacted]
To: "harrington_dam@thamesriver.on.ca" <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 6/2/2016 9:03 PM
Subject: The dam

Hello
Just wanted to make sure I was able to vote for number 7 and that I voted in the right area. My in laws grew up in Harrington and I would like to see the existing dam stay. Thank you Anna hewitt

From: Dan Ring <[redacted]>
To: "harrington_dam@thamesriver.on.ca" <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 6/2/2016 5:16 PM
Subject: Harrington Pond / Dam

Dear Mr. Goldt,
My name is Dan Ring and I have roots in the Harrington area. My great-grandparents and grandparents farmed and lived in the area and are buried in the cemetery there. My mother lived in Harrington within sight of the pond. I am interested in preserving the heritage of Harrington and I would like to see the Harrington dam restored (option # 7 rebuild the dam) and a pedestrian walkway included. Thank you for your time. I don't believe that the other options will provide the same level of recreation and community enjoyment as maintaining the existing pond will.

Thank-you,
Dan Ring

From: Barb Westelaken <[redacted]
To: <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 6/2/2016 12:18 PM
Subject: Vote for Harrington

Dear Mr. Goldt,
My name is Barb Westelaken. I live in St. Marys now and was raised in Harrington, as were both my mother and father. They bought a property and raised us there where we enjoyed the pond, in the summer, swimming in it and in the winter, skating on it. My brother Bernard Schaefer still lives in the village. My grandparents and parents, on both sides of my family farmed and lived in the area and are buried in the cemetery there. The pond has always been a beautiful wildlife sanctuary. A walk around the pond is a tranquil experience and a nature lover's dream. I am interested in preserving the heritage of Harrington and I would like to see the Harrington dam restored with a pedestrian walk (option # 7 rebuild the dam). Thank you for your time.

Thank you for your time and consideration.
Barb Weatelaken

Sent from my iPhone

UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Public Information Centre – Comment Form

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Please provide your comments in the areas that interest you.

Comments: Consider - ease of maintenance - use of water source for Fire Fighting - reduce breeding area for mosquitos - bottom drain options leave no pleasant ripple noise and could require more maintenance

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I like and/or dislike about each alternative for the Harrington Dam is as follows:

JUN - 1 2016

Alternative 1 – Do Nothing shallow - silt Filled pond is no good For fish & breeds mosquitos - deep end at spillways is concern for drowning - care for local children etc. limited picnic or pedestrian use!

Alternative 2 – Remove Dam and Install Rocky Ramp + like water Flow – ripple noise would make pleasant area For picnic etc. + no stagnant water for mosquito's + increased walkway?

Alternative 3 – Remove Dam and Construct a Natural Channel naturalized and grown over would not promote public uses!

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

- I like the option maintaining grist mill channel / - pond maintains Fishing opertunity

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam

looks like to much structure - taking away from natural area!

Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

The Alternative that I like the most is Alternative: 1 (2) 3 4 5 6 7 **(Please Circle)**

Other things that have not been discussed but which the study team should consider?

In choosing (2) I would like to see plan to accomadate the grist mill bypass.

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: KEN NAHRGANG

Address & Postal Code: [redacted]

E-mail Address:

Please submit comments by June 2, 2016

Thank you for your participation.

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From: Luther Hewitt-Smith [redacted]
To: "harrington_dam@thamesriver.on.ca" <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 6/1/2016 4:05 PM
Subject: Rebuild the Dam

Dear Mr. Goldt,
My name is Luther Hewitt-Smith and I have roots in the Harrington area. My great-grandparents and grandparents farmed and lived In the area and are buried in the cemetery there. My mother grew up in Harrington within sight of the pond. I am interested in preserving the heritage of Harrington and I would like to see the Harrington dam restored (option # & rebuild the dam). Thank you for your time.

From: Isaac Hewitt-Smith <[redacted]>
To: <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 6/1/2016 9:06 AM
Subject: Harrington pond alternatives vote

Dear Mr. Goldt,
My name is Isaac Hewitt-Smith and I have roots in the Harrington area. My great-grandparents and grandparents farmed and lived in the area and are buried in the cemetery there. My mother grew up in Harrington within sight of the pond. I am interested in preserving the heritage of Harrington and I would like to see the Harrington dam restored (option # & rebuild the dam). Thank you for your time.
Sent from my iPhone

UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

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Please provide your comments in the areas that interest you.

Comments:

THANK YOU FOR ALLOWING US INPUT

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 – Do Nothing

DOES NOT ADDRESS ANY PROBLEMS

Alternative 2 – Remove Dam and Install Rocky Ramp

DOES NOT ADDRESS PROBLEM OF SEDIMENT

Alternative 3 – Remove Dam and Construct a Natural Channel

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

BEST CHOICE

SEEMS TO ADDRESS MOST CONCERNS

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam

EXPENSIVE

Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

OK BUT EXPENSIVE
LOWER WATER
MEANS MORE SEDIMENT PROBLEMS

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

DOES THIS ADDRESS SEDIMENT REMOVAL

The Alternative that I like the most is Alternative: 1 2 3 (4) 5 6 7 (Please Circle)

Other things that have not been discussed but which the study team should consider?

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: DOUG DIPLOCK

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by June 2, 2016

Thank you for your participation.

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Harrington Dam

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Public Information Centre – Comment Form

MAY 3 1 2016

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Please provide your comments in the areas that interest you.

Comments: I grew up in Harrington and have retired in the area. Our farm was usurped by Wildwood dam. I like the pond the way it is

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 – Do Nothing Fine if it works,

Alternative 2 – Remove Dam and Install Rocky Ramp

Alternative 3 – Remove Dam and Construct a Natural Channel

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam

Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

If it can be done this would preserve the pond for future generations.

The Alternative that I like the most is Alternative: 1 2 3 4 5 6 (7) (Please Circle)

Other things that have not been discussed but which the study team should consider?

I do not totally understand some of the options.

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: Hazel Hewitt

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by June 2, 2016

Thank you for your participation.

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From: susan graham [redacted]
To: <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 5/31/2016 8:02 PM
Subject: Harrington pond voting

My name is Steve Graham. I am married to Susan Hewitt from Harrington. I have spent many occasions around the Harrington pond for over 50 years - camping, courting, picnicking, walking, relaxing etc. I was upset when access was reduced and grass cutting eliminated around 25 years ago. Most decisions regarding the pond seem to have been made by bureaucrats from afar. I personally am tired of the Toronto crowd controlling what gets done to rural Ontario - for instance, who in their right mind could even consider putting Toronto's garbage in a limestone pit in Ingersoll, right in the Thames River watershed. Surely the Zorra decision makers can stick up for our heritage and our ancestors achievements.
My vote is for option # 7.
Sincerely
Steve Graham

Sent from my iPad

From: susan graham [redacted]
To: <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 5/31/2016 7:46 PM
Subject: Harrington Dam voting

Dear Rick
My name is Susan Hewitt Graham, and I am a visual artist. My family and I lived in Harrington area for at least 3 generations.
Our family lived right beside the Harrington Pond and it was an integral part of our lives.
As a child I learned to swim, skate and paint landscapes at the pond. The pond was at the centre of the community.
My vote for the pond is option #7.
Just a few days ago myself and my high school friends drove to the pond. It is as beautiful as I remember it. We would be loosing a part of our heritage by not helping restore the dam and making the structure permanent.
Our traditions need to be celebrated, and preserved. We need to stand up for our homes and heritage.
Sincerely,
Susan Hewitt Graham

Sent from my iPad

Philip D Kerr
[redacted]

May 30, 2016

Mr. Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority

Re: Environmental Assessment for the Harrington Dam

Dear Mr. Goldt,

I have been a naturalist since I was a child. I have always been interested and concerned about wildlife, including birds and fish. I have never felt, however, that concerns in these areas should always take precedence over social elements such as history.

I observed from the presentation at Harrington Hall on May 12, that there was a great emphasis being placed on the free flow of fish though the watercourse. While I can understand the importance of this, I also believe that Harrington's history, heritage, reason for being, must be given equal stress.

I know that I don't need to review, for you, the amount of work that the community has put into restoring the Harrington Grist Mill, but I would like to remind you that this restoration process is not finished, and that one of the next steps will be restoring water force to the mill via a sluice way.

Whatever solution is chosen for the new form of the pond, I believe that it must be big enough and provide the elements necessary to run the mill via a restored sluice way. I also believe that a fish ladder should be part of the plan and I understand, from your presentation, that grants may be available to help offset some of these costs.

Thank you for your attention to this letter, and I look forward to the community and UTRCA working together to find a solution agreeable to all concerned.

Sincerely,

Philip D. Kerr
B. Tech., Architecture
Chair, Harrington and Area Community Association

From: Jennifer Hewitt <[redacted]>
To: "harrington_dam@thamesriver.on.ca" <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 5/30/2016 8:01 PM
Subject: comments on Harrington pond alternatives
Attachments: social history of the pond.docx

Hello Mr. Goldt,

I am a former resident of Harrington; my family is from there as my grandparents farmed there; my aunts and uncles, siblings and cousins all grew up there. My cousin now resides in his former family home in Harrington.

We all have an interest in the pond. We all learned to swim and fish and skate there, and we visit regularly for recreation and to see the cemetery where many friends and relatives (including both my parents and one set of grandparents) are buried.

I have kept current with the developments on the EA and the information presented at the meetings about the pond.

I would like to cast my "vote" for a full replacement of the existing dam (#7). My reasons are several. First, I feel that each of the alternatives (other than "do nothing" which is suggested as unfeasible due to potential dam failure and flooding) will be costly, perhaps more costly than can be anticipated. It is my experience that any kind of building project ends up costing much more than planned! I feel this pond gets a lot of use from the community, from anglers, and from tourists and visitors. If the village is to have any economic development in future it is probably by tapping the existing tourist base in Stratford, and the pond is the best potential tourist attraction as well as the only thing the village currenty has as a draw.

Also, because considerable time and expense has been put into refurbishing the grist mill using government funds, I believe it is important to keep the option open to re-establish the sleuceway (we used to call it the mill run) so that the mill could be restored to working order. I think this historic site could be developed into a tourist attraction with visitors and school groups paying a fee to visit, especially with its proximity to Stratford and its existing tourist base. Although I recognize that this kind of development would require a considerable effort and expense, I feel that cutting off the option of re-establishing the sleuceway would be short-sited.

If replacement of the dam is deemed unfeaslble, I would like the planning committee to consider choosing an alternative that keeps the option open to re-establish the sleuceway so the grist mill could be brought to working order again as a historic site/tourist attraction. It is unclear to me which of the options make the sleuceway a possibility, but I assume it is those in which there is a pond with some kind of dam to allow pressure to build to speed the water through the channel. If I understood more fully which alternatives keep this option open I would rank them second, third choice.

I have also attached an essay I wrote on the social history of the pond from my point of view. It is perhaps a little sentimental but I would like it to be included in your considerations.

Thank you.

Jennifer Hewitt

From: [redacted]
To: "harrington_dam@thamesriver.on.ca" <harrington_dam@thamesriver.on.ca>
BC Rick Goldt
Date: 5/29/2016 11:52 AM
Subject: Harrington Dam

I vote for Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials, and include a pedestrian bridge over the dam. This looks like the most attractive and useful alternative.I grew up in Harrington and like to visit there. The pond, mill and conservation area is the best attraction the area has.It would be helpful to know the approximate costs of the various options.
Name: Lynn (Hewitt) RingAddress & Postal Code: [redacted]
Address: l.ring[redacted]

From: Tim Van de Kemp <[redacted]
To: <goldtr@thamesriver.on.ca>
Date: 5/27/2016 6:53 PM
Subject: Fwd: Public Information Centre - Comment Form
Attachments: Harrington Dam LE to UTRCA.doc

-

Hello Rick,
Attached please find a letter from the Harrington Mill Restoration Committee regarding the pond alternatives as presented at the PIC #2.
Feel free to contact me if you have any questions regarding content of the letter.

Tim Van de Kemp, Chair
Harrington Mill Restoration Committee

From: Bonnie Di Bernardo <[redacted]>
To: "goldtr@thamesriver.on.ca" <goldtr@thamesriver.on.ca>
Date: 6/6/2016 9:33 AM
Subject: Harrington Damn

Dear Mr. Goldt,

I grew up in Harrington and so did my parents and grandparents. I still have family there. The pond is an integral part of the area.

I believe the area should be preserved for the wildlife found there, for the folks who live there, and for the people that come there

for recreational reasons.

We as a society are slowly running out of these special places. We need to save Harrington Conservation area with its pond and damn

for future generations to enjoy as I did as a child and young adult.

I vote for Alternative 7 - Reconstruct the Existing Dam in Current Location with New Materials.

Thank you for your consideration.

Bonnie Di Bernardo

[redacted]

The years teach much

which the days never knew.

- Ralph Waldo Emerson

From: Jeanie & Gary [redacted]
To: "goldtr@thamesriver.on.ca" <goldtr@thamesriver.on.ca>
Date: 6/2/2016 9:37 PM
Subject: my vote regarding the Harrington pond dam

Dear Mr. Gold: I'd like to vote for Alternative #7--reconstruct the existing Dam in the current location with new materials with a pedestrian walk way over the dam.
My entire childhood from age 6 to 19 was spent in and around this pond as I grew up in one of the houses right by the pond. I learned to swim in the creek which was dammed when they were building the bridge on the road that runs through Harrington. That would have been around 1964 or so, maybe a bit later. After that we spent literally 8 hours a day swimming at the dam and when not swimming we were boating, fishing, catching tadpoles at the bottom of the dam which we "gave" to fishermen--we were not allowed to sell them but were "paid" in pop bottles or donations enough to have an ice cream cone or bag of chips. The beginning of fishing season was always a big event. I remember eating the delicious fish for dinner that my brother caught and brought home for Mom to cook. Of course I learned to skate on the pond in the winter as well. I believe I knew every foot that that pond/dam/river. Some of my best memories are the endless hours spent in and around the Harrington pond. As children we took for granted that we had this summer wonderland all day, every day and as adults we realize what a gem Harrington pond is for all to enjoy.
Thank you for your time
Jeanie Zamecnik

UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

r system very inc.
PROFESSIONAL ENGINEERS

Public Information Centre – Comment Form

The Environmental Assessment for the Harrington Dam, in the Harrington Conservation Area, is intended to address safety concerns identified as part of the Dam Safety Assessment (ACRES, 2007) including insufficient spillway capacity, spillway instability and embankment stability. Through the study, potential alternatives will be evaluated to determine a course of action to mitigate dam safety concerns.

The project is being carried out in accordance with the requirements of the *Conservation Ontario Class Environmental Assessment*. The study is being undertaken by the Upper Thames River Conservation Authority (UTRCA).

Public consultation is a key component of this study. This Public Information Centre (PIC) is held to receive public input on the possible future alternatives for the Harrington Dam. Any feedback and comments provided will become part of the public record for this project.

Please provide your comments in the areas that interest you.

Comments: Preserve Flow so all the work on renovating Grist Mill is not wasted!

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 – Do Nothing

#1 choice
- why spend money since no catastrophic consequences if dam fails

Alternative 2 – Remove Dam and Install Rocky Ramp

#2 choice

Alternative 3 – Remove Dam and Construct a Natural Channel

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam

Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

no - where is the money for this going to come from

The Alternative that I like the most is Alternative: (1) 2 3 4 5 6 7 **(Please Circle)**

Other things that have not been discussed but which the study team should consider?

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: BRENDA KRANTZ

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by June 2, 2016

Thank you for your participation.

Personal information on this form is collected under the authority of the Conservation Authorities Act and will be used for the purposes of the Harrington Dam Class EA only. Questions about the collection of personal information should be directed to: General Manager, Upper Thames River Conservation Authority, 1424 Clarke Rd., London, Ontario. N5V 5B9 (519) 451-2800.

UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Public Information Centre – Comment Form

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Please provide your comments in the areas that interest you.

Comments: Very Concerned about changing the Pond anyway, with creating problems with mosquitoes, ect. and the banks of the pond with Low water,

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 – Do Nothing

Alternative 2 – Remove Dam and Install Rocky Ramp

Alternative 3 – Remove Dam and Construct a Natural Channel

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam

Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

want it to remain, and Reconstruct the existing Dam

The Alternative that I like the most is Alternative: 1 2 3 4 5 6 (7) (Please Circle)

Other things that have not been discussed but which the study team should consider?

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: Larry Fusick

Address & Postal Code: [redacted]

E-mail Address: _____

Please submit comments by June 2, 2016

Thank you for your participation.

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Harrington Community & Historical Preservation Club Inc.

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8

RE: Class Environmental Assessment, Harrington Dam, Public Information Centre #2

In response to the Harrington Dam Public Information Centre #2 presentation of March 12, 2016, we offer the following comments for consideration:

Our organization continues to have a significant interest in the Harrington Grist Mill and making it viable for demonstrating the role of water power and the mill in establishing villages in the early history of this area. A lot of time and energy has been invested by our organization to get the mill facility where it is to date. It is now at a point where the mill equipment has been totally restored and is able to operate once again.

Our restoration plan highlights the authenticity of the mill, which includes having the running gear operate by waterpower as it has for decades when the original settlers in the area and established the village of Harrington. As the mill played an important role in the development of the surrounding community, we believe that it has significant historical value and it is our interest to maintain the facility as an original and genuine operation of this period. We see value not only for current observers but also for the benefit of future generations to experience first hand how water driven mills operated.

Without a water source, the above objective cannot be realized. Alternatives 5 (Replace dam with a new structure downstream of the existing dam location) and 7(Reconstruct existing dam in current location with new materials) are the only 2 that maintain the pond water at a level that would be adequate for the operation of the current turbine to run the mill equipment.

Alternative 4 (Natural channel with offline ponds) shows an "optional sluice bypass channel to divert flow to historical mill". This option is also of interest as it allows an option of water to be routed into the mill turbine pit.

Our discussion regarding Alternative 4 questioned whether this would provide for an adequate head of water to operate a turbine in order to drive the mill equipment. As the mill equipment would be freewheeling and not under the load and resistance of grinding plates processing grains, much less power would be required to drive the machinery. The above 3 are the only alternatives that will meet our restoration objective of having the mill machinery run by way of water power.

Because of the continuous water flow created by the headwaters of the Harrington pond, serious consideration should be given to using this source as a micro grid project to generate hydro electrical power. Looking ahead, this important sustainable resource should not be overlooked. This forward thinking would also be conducive for Oxford County's 2015 initiative to be 100 per cent sustainable for renewable energy by the year 2050 and be a source of income. Alternatives 4, 5 & 7 would allow for this. The possibility may exist to install a more efficient turbine that could serve the dual purpose of the occasional operation of the mill and also for generating hydro electricity.

We hope that the above will be considered in your review of the Harrington Dam alternatives. We appreciate the work that has been completed and the opportunity to participate in the process. We look forward to a continued harmonious working relationship regarding the mill with UTRCA.

Yours Truly

Tim Van de Kemp, Chair
Harrington Mill Restoration Committee
Committee Members: John Hiuser, Sam Coghlan, Doug Diplock, Tim Van de Kemp

From: "P. Hunter" [redacted]
To: Rick Goldt <goldtr@thamesriver.on.ca>, SOX Roger Boyd [redacted]
CC: [redacted]
Date: 6/16/2016 12:45 PM
Subject: SOX: Harrington EA PIC Comment Form

Hi Folks,

Rick,
Pls accept the following reply formatted from your earlier email -

From: Rick Goldt
Sent: Wednesday, June 15, 2016 12:14 PM
To: Pud Hunter ; Pud Hunter
Subject: Comment Sheets Harrington and Embro EA PIC2

- which I copied/ attached to this/ my email.

Thk you,
Pud
Director Stewardship Oxford

****

Upper Thames River Conservation Authority Class Environmental Assessment
Harrington Dam

Public Information Centre - Comment Form

The Environmental Assessment for the Harrington Dam, in the Harrington Conservation Area, is intended to address

safety concerns identified as part of the Dam Safety Assessment (ACRES, 2007) including insufficient spillway

capacity, spillway instability and embankment stability. Through the study, potential alternatives will be evaluated to

determine a course of action to mitigate dam safety concerns.

The project is being carried out in accordance with the requirements of the Conservation Ontario Class Environmental

Assessment. The study is being undertaken by the Upper Thames River Conservation Authority (UTRCA).

Public consultation is a key component of this study. This Public Information Centre (PIC) is held to receive public

input on the possible future alternatives for the Harrington Dam. Any feedback and comments provided will become

part of the public record for this project.

Please provide your comments in the areas that interest you.

Comments:

This submission is on behalf of Stewardship Oxford (SOX), an Oxford County based Council promoting sustainable resources management.

Such management are to be achieved through current environmental standards and science based information.

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I

like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 - Do Nothing

Dislike: perpetuates status quo which is detrimental to sustainable recourse management and results in deteriorating environmental conditions.

Does not allow upgrading to current environmental standards.

Alternative 2 - Remove Dam and Install Rocky Ramp

Like: as a 2nd option to 1st preferred option Alternative 3; allows upgrading to current environmental standards; enhancing watershed benefits; suggest cost-benefit analysis.

Alternative 3 - Remove Dam and Construct a Natural Channel

Like: as a 1st option; allows upgrading to current environmental standards; enhancing watershed benefits.

Alternative 4 - Remove Dam and Construct an Offline Pond and Natural Channel

Like: as a 3rd option to 1st preferred option Alternative 3 and 2nd option to Alternative 2; preference for wetland prior to pond.

Dislike: artificial structures; management needs so pond or wetland does not negatively impact watercourse; suggest cost-benefits analysis.

Alternative 5 - Replace Dam with new Structure Downstream of the Existing Dam

Dislike: maintains status quo management; perpetuates degraded/ degrading environmental conditions.

Alternative 6 - Replace Dam with an Earthen Dam of Lower Crest Elevation

Dislike: maintains status quo management; perpetuates degraded/ degrading environmental conditions.

Alternative 7 - Reconstruct the Existing Dam in Current Location with New Materials

Dislike: maintains status quo management; perpetuates degraded/ degrading environmental conditions.

The Alternative that I like the most is Alternative: 1 2 3 4 5 6 7 (Please Circle)

... ... 3

Other things that have not been discussed but which the study team should consider?

Please print your name and address below, and leave your completed Comment Form in the box provided. You may

also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.

Supervisor, Water Control Structures

Upper Thames River Conservation Authority

1424 Clark Road, London, ON N5V 5B8

Tel.: 519-451-2800 ext. 244

goldtr@thamesriver.on.ca

Name: Submitted on behalf of Roger Boyd, Chair Stewardship Oxford (SOX) _____

Address & Postal Code: [redacted]

E-mail Address: [redacted] _____

By: P. Hunter, Director Stewardship Oxford (SOX); [redacted]

Please submit comments by June 2, 2016

Thank you for your participation.

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for the purposes of the Harrington Dam Class EA only. Questions about the collection of personal information should

be directed to: General Manager, Upper Thames River Conservation Authority, 1424 Clarke Rd., London, Ontario.

N5V 5B9 (519) 451-2800.

From: "P. Hunter" [redacted]
To: Rick Goldt <goldtr@thamesriver.on.ca>, Robert Huber [redacted]
CC: Randy Bailey [redacted]
Date: 6/16/2016 12:45 PM
Subject: TRAA: Harrington EA PIC Comment Form

Hi Folks,

Rick,

Pls accept the following reply formatted from your earlier email -

From: Rick Goldt
Sent: Wednesday, June 15, 2016 12:14 PM
To: Pud Hunter ; Pud Hunter
Subject: Comment Sheets Harrington and Embro EA PIC2

- which I copied/ attached to this/ my email.

Thk you,
Pud
Thames River Anglers Association

****
Upper Thames River Conservation Authority Class Environmental Assessment

Harrington Dam

Public Information Centre – Comment Form

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safety concerns identified as part of the Dam Safety Assessment (ACRES, 2007) including insufficient spillway

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The project is being carried out in accordance with the requirements of the Conservation Ontario Class Environmental

Assessment. The study is being undertaken by the Upper Thames River Conservation Authority (UTRCA).

Public consultation is a key component of this study. This Public Information Centre (PIC) is held to receive public

input on the possible future alternatives for the Harrington Dam. Any feedback and comments provided will become

part of the public record for this project.

Please provide your comments in the areas that interest you.

Comments:

This submission is on behalf of the Thames River Angling Association (TRAA).

TRAA is a Thames River Watershed based Association promoting wise resources management and benefits associated with the Thames River Watershed.

Considering the evaluation criteria required to be assessed through the Environmental Assessment process, what I

like and/or dislike about each alternative for the Harrington Dam is as follows:

Alternative 1 – Do Nothing

Dislike: perpetuates status quo which is detrimental to sustainable recourse management and results in deteriorating environmental conditions.

Does not allow upgrading to current environmental standards.

Alternative 2 – Remove Dam and Install Rocky Ramp

Like: as a 2nd option to 1st preferred option Alternative 3; allows upgrading to current environmental standards; enhancing watershed benefits; suggest cost-benefit analysis.

Alternative 3 – Remove Dam and Construct a Natural Channel

Like: as a 1st option; allows upgrading to current environmental standards; enhancing watershed benefits.

Alternative 4 – Remove Dam and Construct an Offline Pond and Natural Channel

Like: as a 3rd option to 1st preferred option Alternative 3 and 2nd option to Alternative 2; preference for wetland prior to pond.

Dislike: artificial structures; management needs so pond or wetland does not negatively impact watercourse; suggest cost-benefits analysis.

Page 2 of 2

Alternative 5 – Replace Dam with new Structure Downstream of the Existing Dam

Dislike: maintains status quo management; perpetuates degraded/ degrading environmental conditions.

Alternative 6 – Replace Dam with an Earthen Dam of Lower Crest Elevation

Dislike: maintains status quo management; perpetuates degraded/ degrading environmental conditions.

Alternative 7 – Reconstruct the Existing Dam in Current Location with New Materials

Dislike: maintains status quo management; perpetuates degraded/ degrading environmental conditions.

The Alternative that I like the most is Alternative: 1 2 3 4 5 6 7 (Please Circle)

... ... 3

Other things that have not been discussed but which the study team should consider?

Please print your name and address below, and leave your completed Comment Form in the box provided. You may

also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.

Supervisor, Water Control Structures

Upper Thames River Conservation Authority

1424 Clark Road, London, ON N5V 5B8

Tel.: 519-451-2800 ext. 244

goldtr@thamesriver.on.ca

Name: Submitted on behalf Robert Huber, President, Thames River Anglers Association_____

Address & Postal Code: [redacted] _____

E-mail Address: [redacted] _____

Addition: Randy Bailey; Past President TRAA ; [redacted]

By: P. Hunter, TRAA; [redacted]

Please submit comments by June 2, 2016

Thank you for your participation.

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for the purposes of the Harrington Dam Class EA only. Questions about the collection of personal information should

be directed to: General Manager, Upper Thames River Conservation Authority, 1424 Clarke Rd., London, Ontario.

N5V 5B9 (519) 451-2800.

From: Rick Goldt
Sent: Wednesday, June 15, 2016 12:14 PM
To: Pud Hunter ; Pud Hunter
Subject: Comment Sheets Harrington and Embro EA PIC2

Pud,

Please find attached the Comment sheets as discussed.

Regards,

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clarke Rd.
London ON
N5V 5B9
ph. 519-451-2800 X244
C 519-719-4192
goldtr@thamesriver.on.ca

April 2016

When asked to write about the social history of the pond, what it was to us who lived there, it's hard to know where to start.

If you ever lived beside a body of water you'll know how it comes to affect every part of life. Every time you look out the window or step out the door. Every walk you take. The colours and reflections. The effects of wind and sun. The rising and falling that changes with the seasons. The moon shining on it at night.

Some of my first memories are of the pond. This time of year (the damp cold spring) we'd be waiting for fishing season to start. I remember being put to bed in a room shared with my sisters, looking down out of the window into the dark and seeing the bonfires starting, like a group of gypsies had come to stay. In the morning light there they were, sprung up overnight, encamped and blanket-wrapped, our quiet haven surrounded by happy revelers who'd dropped their lines at midnight. My friends and I would tuck our pajamas into hooded sweatshirts and sleepily walk over to greet them. When we got older we'd spend the days beforehand digging worms in our vegetable gardens, or catching minnows at the base of the falls, a dime a cup. Although what sold better, we gradually discovered, were warm brownies made by our mothers.

The creek was a source of fun too, especially in spring when its banks swelled and the suckers tried to swim up against the current to spawn. We'd stand in water teeming with them, the river made of suckers, and catch them in our hands just to pull them out to see their vicious-looking mouths. Then there were the frogs, the shrieking so loud you could easily hear it with the windows closed, and what we called frog nights when every frog in every hole decided to sally out and find a mate, so many you couldn't walk for stepping on one, the ground not the ground anymore but an ocean of frogs.

As the hot days came the pond was for swimming. The big kids made diving boards with planks roped into the trees or across the rails of the bridge, their splashes and whoops echoing all day long. We smaller ones followed our mothers to the grassy banks back near the source where the water was shallow, and

where we learned to swim. We had picnics back there too; the United Church held its Sunday School picnics on the grass flats abutting the pond. The adults sat in lawn chairs watching our games. There'd be hot dogs and ice cream and orange drink, and after the sweet syrupy juice was gone and the sun gone down we'd catch fireflies in the Styrofoam cups, holding our hands over the mouth to make flashing white lanterns. In late summer the apple trees on the pond banks dropped masses of fruit and my brother started up a years-long competition by showing us how to whip them across the water with a homemade slingshot. That wasn't the only thing to cross the water; he took a dare to drive his snowmobile over the surface where the pond narrows, and all the villagers came out to see. He did it – once. The second time didn't go so well. It was a funny memory for years to come at community parties and family reunions held on those banks.

Hours and hours spent in the water, either in the pond or playing in the creek below. We learned to climb the cement slope of the falls, grabbing the long algae with our fingers and toes like monkeys. We'd spend the day soaked and go to bed at night wrinkled as prunes. So many adventures, like finding tadpoles or scurrying crabs that skittered under the river rocks, capturing snapping turtles that laid in wait for ankles to nip and returning them to the nearby swamp they'd strayed from. I learned to fish at the pond, as did so many other children. How to bait the hook, how to cast. We had a rowboat, and later several families, including ours, bought canoes. If you sat still you'd get to see the trout jump and flip and fall back with a splash. You can still see it any summer day. The pond is a peaceful spot on a late summer day in a canoe.

Back to school. But after school the grounds around the pond were the place to play and run. One neighbour told us that if you turned seven times under the biggest weeping willow, your wish would come true. I bet she enjoyed lots of afternoons watching us spin around until we fell down. Wildflowers and wild cucumbers were our playthings – that sounds whimsical but our favourite game was war. Two teams. The prickly cucumbers and golden rod stalks were our bombs and clubs – and those hits stung. It was always too bad though when the season started to change and the dark sent us home.

At Hallowe'en the pond was a source of pranks – it got drained on more than one Hallowe'en night. Our dads took it in hand; the neighbourhood always watched over the pond, moving the boards in the damn to raise or lower the water level as need be to prevent flooding. I always understood that draining it once in a while was good for the pond – maybe it killed off the weeds that sometimes grew up from the floor. When you live beside a pond you get to know when something is off, when something changes, because you see it every day. I remember my father feeling put out that the UTRCA would visit periodically and, to his way of looking at it, think they knew better what was best for the pond, more than the local folks did who kept the banks from overflowing by a daily monitoring of those boards in the dam.

Now we'd just be waiting for winter. We looked forward to skating almost more than swimming. The best years it froze hard before the snow came and we'd have the whole surface to glide on. One neighbour put himself in charge of safety and chopped holes to measure the ice. I remember him coming over to tell my mother we could go – and we were off. There were often two rinks operating, one for hockey and one for skating. Every day after school you'd just scramble to get your skates on. It was so cold putting them on at the rink we'd walk over with skate guards, the funny marks all up and down the road. If your skate guard got lost in the snow you'd crawl there if you had to. Saturdays we'd be there all day. The chill blains!! Ow! We'd regularly skate until we couldn't feel our feet, then the thawing was like being stabbed with a hundred tiny knives. But that never stopped us. We'd watch figure skating on TV and then get out there and try out our moves. And of course hockey. Hockey until dusk. Falling light, pink sky, and that eerie cracking sound, like the rip of lightning, that the ice makes as the temperature falls. Sometimes it sounded like cannons going off. Boom! That sent us home.

On more than one Christmas Day the ice was solid enough. At least twice I can remember the whole community came out to skate on Christmas Day. The kids would compare notes on what gifts we got and go home to turkey dinner.

I have one more memory to share. Back to spring and I woke to a perfect dewy Saturday morning, everything green from a big rain the night before. Hopped on my bike and rode along the side of the pond on the packed dirt trail. What did I see? A mother duck and eight babies – eight! – weaving through the reeds, then popping onto the water, one, two, three, fast as beads falling off a string, and paddling away. There were always these surprises, as the pond was home to so much more than its human inhabitants.

The pond was an integral part of the community when I was growing up. It was the place where we met and played and celebrated. I still visit regularly with friends and family, and it's still an idyllic spot for a quiet afternoon. I'd hate to think of it gone, not just for myself but for all the visitors I run into there, some from our former population, who like me look forward to our visits and to sharing memories.

I can see that re-habilitating the area, in whatever way is chosen, will be costly. But I say spend the money on keeping the pond rather than the alternative of removing it, which as far as I can see could turn out to be equally costly. And the systems of wildlife that have grown there over the years deserve our protection as well. This village doesn't have a draw without the pond, but with it, it has the possibility of tourism and a future. I'd like to think the social history of the Harrington Pond will be allowed to continue.

Jennifer Hewitt

April 2016

Public Information Centre #3

Upper Thames River Conservation Authority

Harrington Dam
Class Environmental Assessment

NOTICE OF THIRD PUBLIC INFORMATION CENTRE

THE STUDY

Upper Thames River Conservation Authority (UTRCA), through their consultant Ecosystem Recovery Inc., is undertaking a Class Environmental Assessment (Class EA) for the Harrington Dam in the Township of Zorra. The study was initiated to address results of the 2007 Dam Safety Review of the Harrington Dam which identified significant issues with the spillway capacity and embankment stability of the dam.

THIRD PUBLIC OPEN HOUSE

The first open house was held on June 25, 2015 to introduce the study and to receive comments from the public. A second Public Open House will be held on May 12, 2016 to present an overview of existing conditions, to introduce technically feasible potential alternative solutions for the future of the dam, to review the evaluation criteria for the alternatives, and to provide an opportunity for public comment and input. A third Public Open House will be held on October 20, 2016 to discuss the evaluation process and to present the preferred alternative for the dam.

The map on the reverse of this page shows the location of the study area.

WE WANT TO HEAR FROM YOU

Public consultation is a key component of this study. The Project Team invites public input and comments, and will incorporate them into the planning and design of this project. The third Public Information Centre will take place at the following time and location:

Public Information Center 3:

Date:	**October 20th, 2016**
Time:	**7:00 p.m. to 9:00 p.m.**
Place:	**Harrington Hall and Library** **539 Victoria Street** **Harrington, ON**

The evening will begin at 7:00 pm with a formal presentation that will be followed by a time for discussion and questions. Presentation boards will be displayed throughout the evening and comment forms will be provided to enable public feedback and input into the project. Further opportunity for questions and discussion with the project team will occur throughout the evening.

STUDY CONTACTS

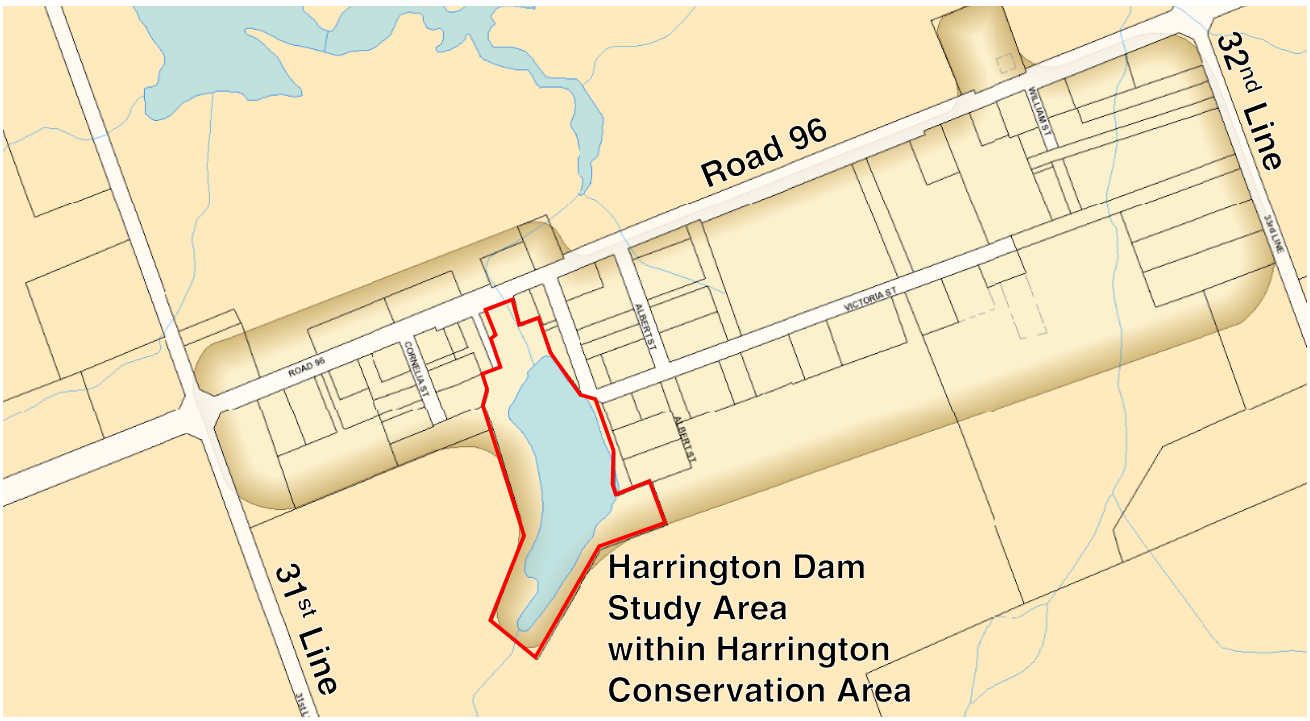
To submit comments, request further information, or to join the project mailing list, please send an email to the project email address:

harrington_dam@thamesriver.on.ca

Contact information for the project team leaders is listed below:

Mr. Rick Goldt, C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clarke Road
London, Ontario, N5V 5B9
Tel: 519-451-2800 ext. 244
Fax: 519-451-1188
goldtr@thamesriver.on.ca

Mr. Wolfgang Wolter
Senior Project Manager
Ecosystem Recovery Inc.
550 Parkside Drive, Unit B1
Waterloo, Ontario, N2L 5V4
Tel: 519-621-1500
Fax: 226-240-1080
wolfgang.wolter@ecosystemrecovery.ca


Road 96
32nd Line
31st Line
ROAD 96
CORNELIA ST
ALBERT ST
VICTORIA ST
WILLIAM ST
Harrington Dam
Study Area
within Harrington
Conservation Area

Public Information Centre #3
PIC Presentation Slides

Harrington Dam
Class Environmental Assessment
Public Information Centre #3

Upper Thames River Conservation Authority
Harrington Hall and Library
October 20th, 2016 7:00 p.m. to 9:00 p.m.

UPPER THAMES RIVER CONSERVATION AUTHORITY

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Overview

- Impetus of Project
- Class EA process
- Evaluation process
- Harrington dam evaluation
- Preferred alternative
- Impacts and mitigation
- Next Steps

UPPER THAMES RIVER CONSERVATION AUTHORITY

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Introduction and Background

- Dam built in 1846
- UTRCA acquired dam in 1952
- Significant concerns related to the hydraulic capacity of Harrington dam, insufficient spillway capacity, spillway instability, and embankment instability
  - *Acres International. July, 2007.*
  - *Naylor Engineering Associates. September 2008.*

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Study Process

- In addition to repair, other options are available that require study
- As a public body, UTRCA must plan any activities associated with the dam according to the Environmental Assessment Act
- Under the Act, UTRCA is required to undertake a *Class Environmental Assessment for Remedial Flood and Erosion Control*

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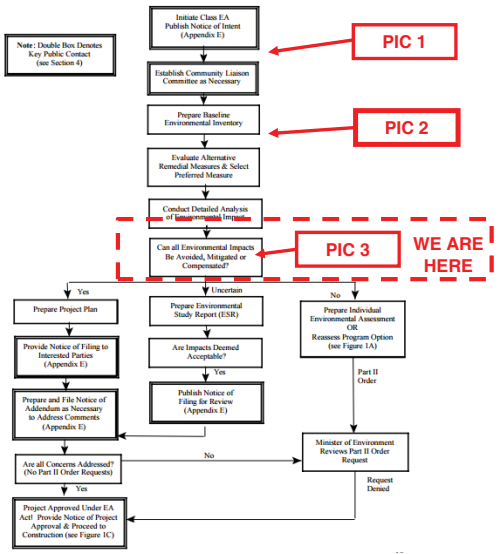
Class EA Process for Conservation Ontario (Remedial Flood and Erosion Control Works)

- Environmental Assessment Act, RSO 1990, chapter E.18.
- Code of Practise: Preparing, Reviewing and Using Class Environmental Assessments in Ontario. (MOE, 2014)
- Class Environmental Assessment for Remedial Flood and Erosion Control Projects (Conservation Ontario, 2012)



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Class EA Process

- Problem identification/confirmation – PIC 1
- Baseline Inventory – PIC 2
  - Background review, field studies
- Alternative Identification - PIC 2
  - Methods that can be used to address problem, mitigate impacts
- Alternative Evaluation – PIC 3
- Preferred Alternative – PIC 3
  - To mitigate/resolve the problem
  - Incorporate any feedback

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Alternatives

1) Do Nothing
2) Remove Dam and Install a Rocky Ramp
3) Remove Dam and Construct a Natural Channel
4) Remove Dam and Construct an Offline Pond and Natural Channel
5) Replace the Dam with a New Structure Downstream of the Existing Dam Location
6) Replace the Dam with an Earthen Dam of Lower Crest Elevation
7) Reconstruct the Existing Dam in Current Location with New Materials

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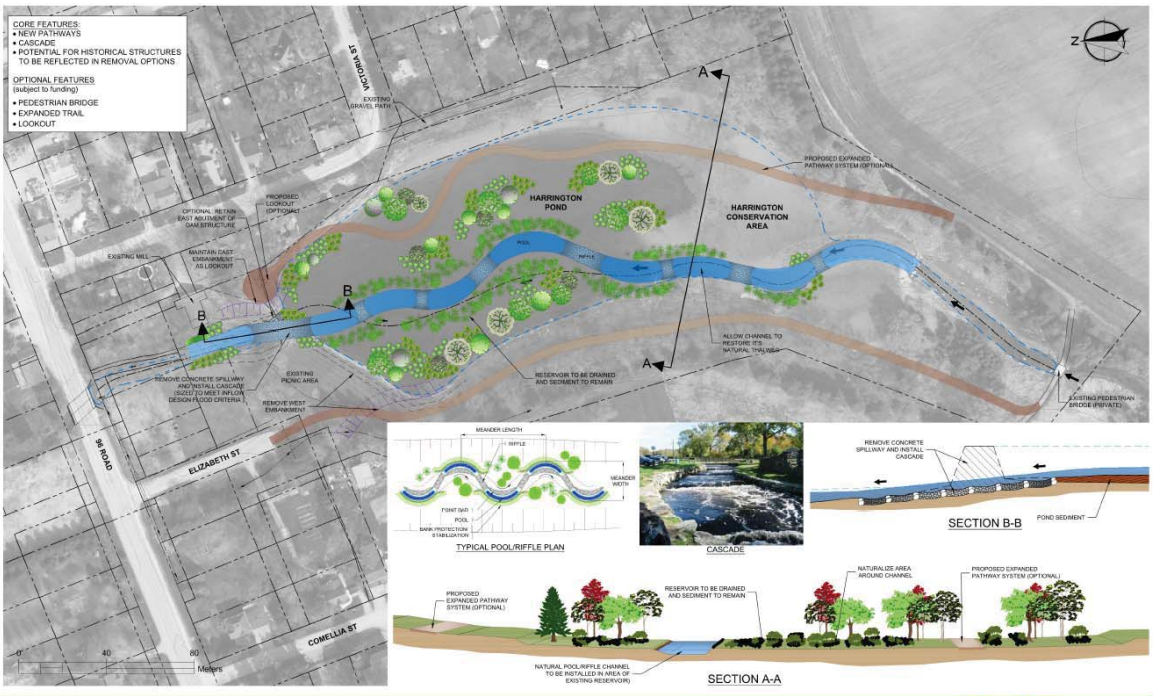
Alternative 1 – Do Nothing

Alternative 2 – Remove Dam, Install Ramp



HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 2 - REMOVE DAM AND INSTALL ROCKY RAMP

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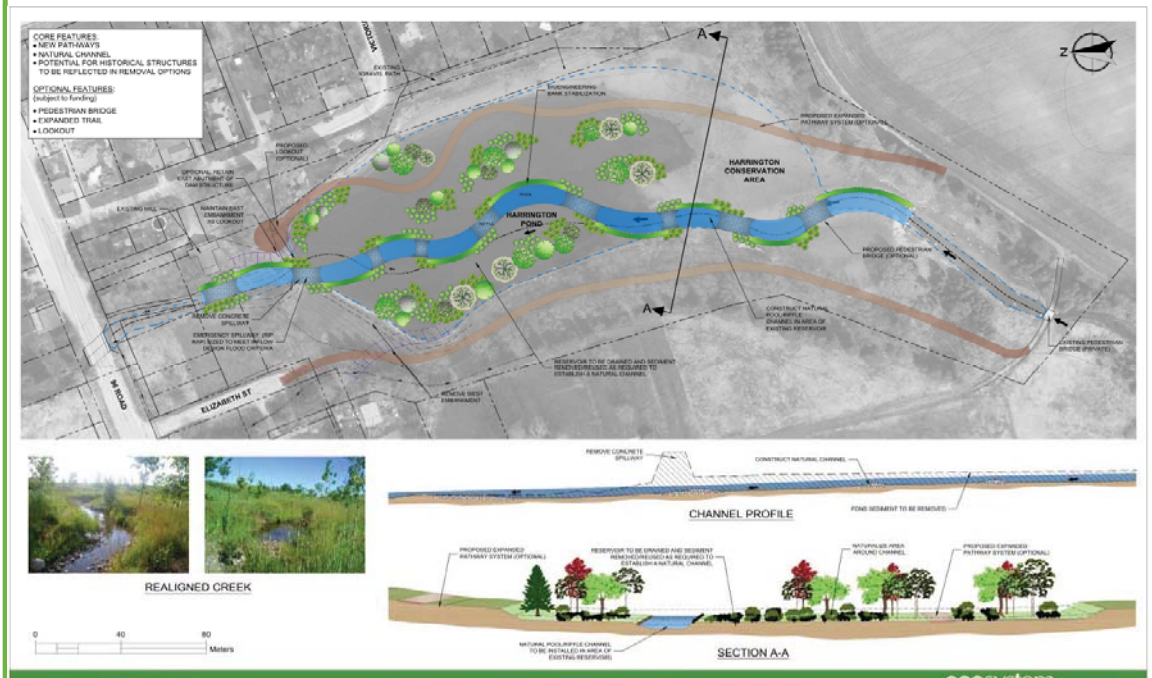
FIGURE 5-2

Alternative 3 – Remove Dam, Natural Channel



HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 3 - NATURAL CHANNEL REMOVE DAM AND CONSTRUCT NATURAL CHANNEL

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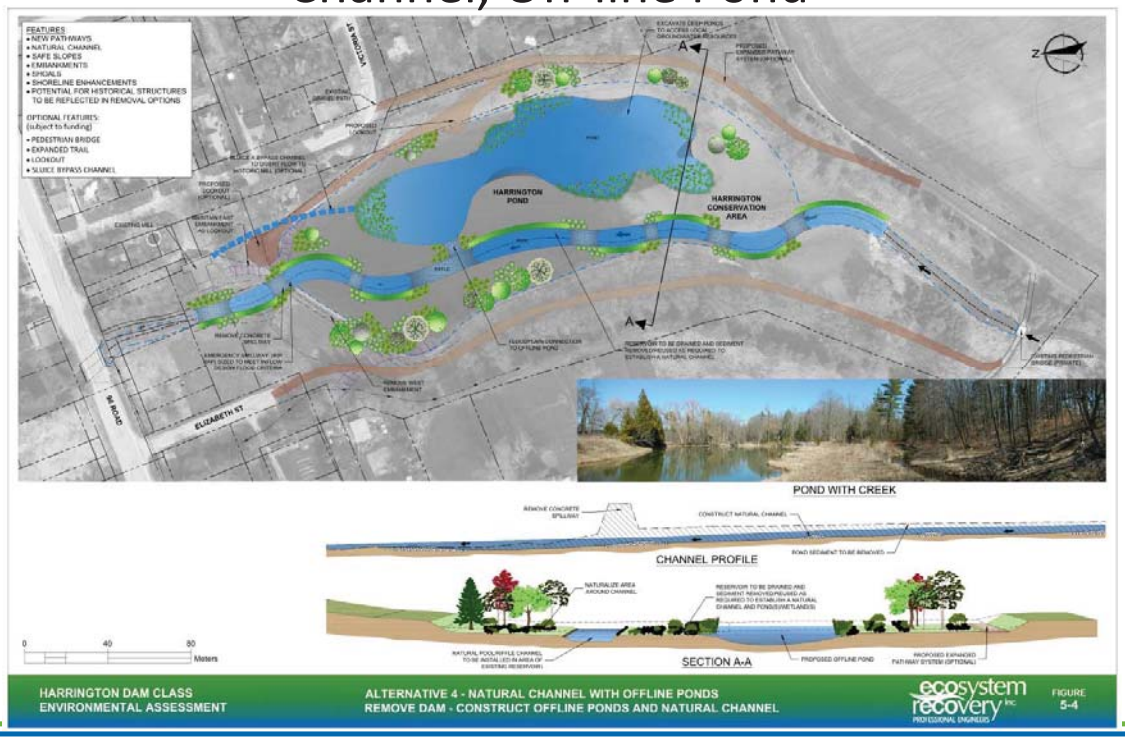
FIGURE 5-3

Alternative 4 – Remove Dam, Natural Channel, Off-line Pond



HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 4 - NATURAL CHANNEL WITH OFFLINE PONDS
REMOVE DAM - CONSTRUCT OFFLINE PONDS AND NATURAL CHANNEL

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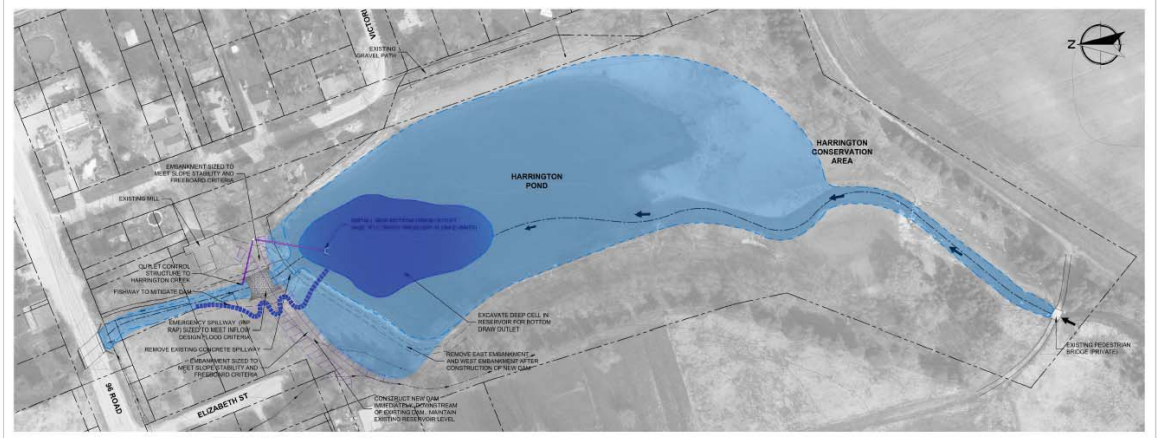
FIGURE 5-4

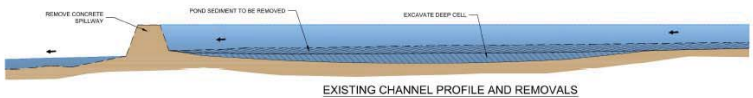
Alternative 5 – Replace Dam



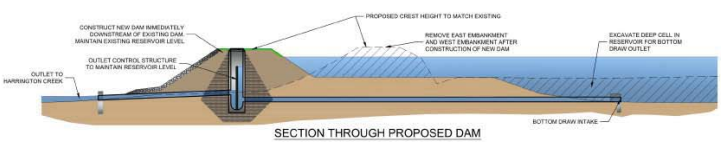
FEATURES:
• NEW PATHWAYS
• PEDESTRIAN CROSSING
• LOOKOUT
• NATURAL CHANNEL
• SAFE SLOPES
• EMBANKMENTS
• BOTTOM DRAW STRUCTURE
• POTENTIAL FOR HISTORICAL STRUCTURES TO BE REFLECTED IN REMOVAL OPTIONS
• FISH PASS STRUCTURE

OPTIONAL FEATURES: (subject to funding)
• PEDESTRIAN BRIDGE(S)
• EXPANDED TRAIL
• LOOKOUT

MEANDERING FISHWAY AROUND DAM



EXISTING CHANNEL PROFILE AND REMOVALS



SECTION THROUGH PROPOSED DAM

Meters

HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 5 - REPLACE DAM
REPLACE DAM WITH A NEW STRUCTURE DOWNSTREAM OF THE EXISTING DAM LOCATION

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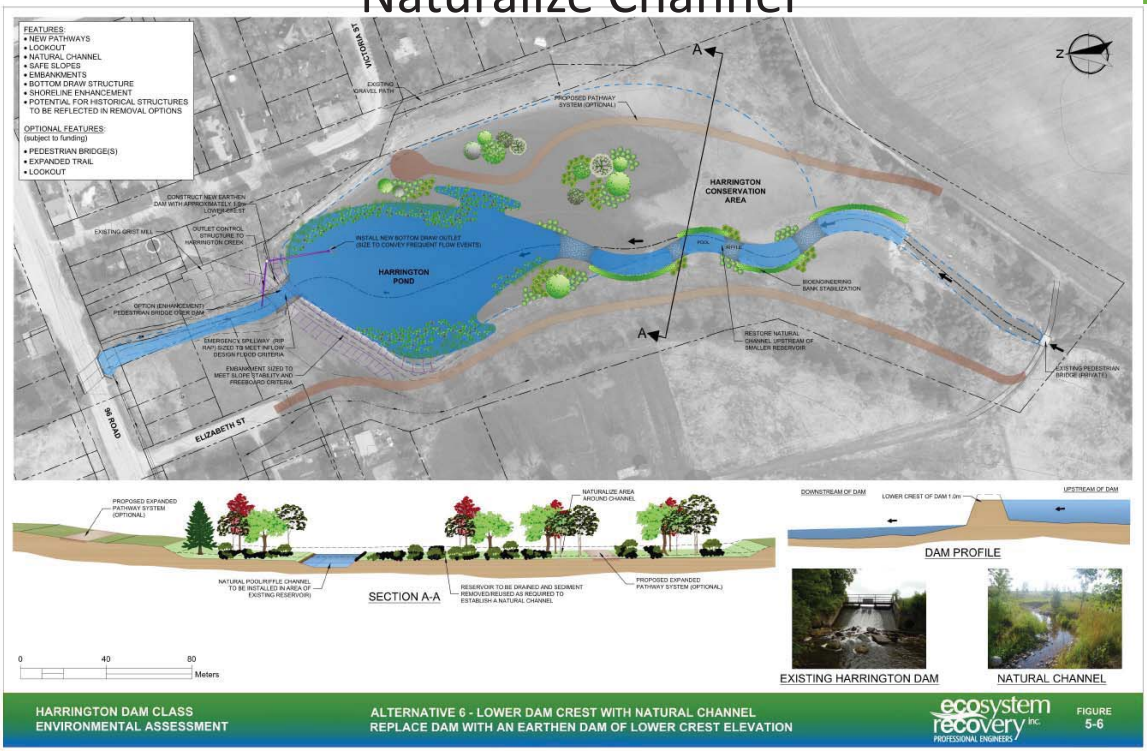
FIGURE 5-5

Alternative 6 – Lower Dam Crest, Naturalize Channel



HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 6 - LOWER DAM CREST WITH NATURAL CHANNEL
REPLACE DAM WITH AN EARTHEN DAM OF LOWER CREST ELEVATION

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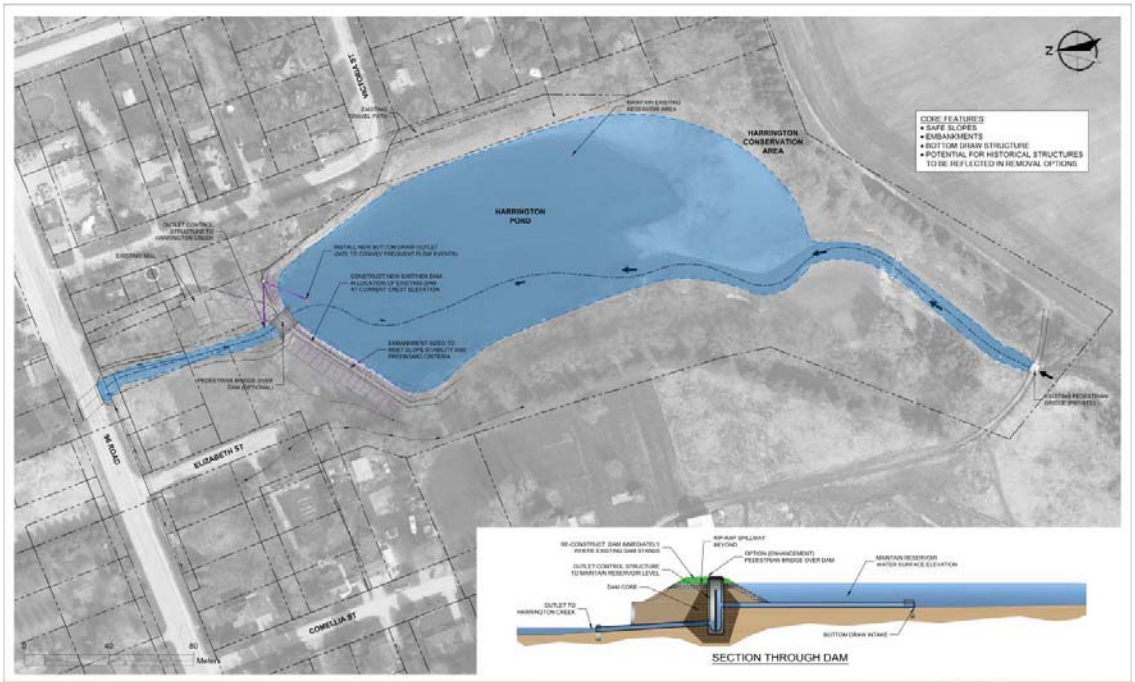
FIGURE 5-6

Alternative 7 – Reconstruct Existing Dam



HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

ALTERNATIVE 7 - EXISTING DAM
RECONSTRUCT EXISTING DAM IN CURRENT LOCATION WITH NEW MATERIALS

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FIGURE 5-7

Overview of PIC 2 Feedback

- Comments received by UTRCA (22):
  - Historical significance of area
  - Family histories
  - Recreation and education potential
  - Environmental concerns

Alternative	Responses
1. Do nothing	1
2. Remove dam and install rocky ramp	2
3. Remove dam and construct a natural channel	2
4. Remove dam and construct an offline pond and natural channel	2
5. Replace Dam with new structure downstream of existing dam	1
6. Replace dam with an earthen dam of lower crest elevation	0
7. Reconstruct the existing dam in current location with new materials	14

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Evaluation Criteria for EA Projects

Technical/Engineering	Natural Environment
Flooding Impacts/Enhancement Protection of Infrastructure Constructability Implementability Approvability	Aquatic Habitat Impacts/Enhancement Pond Habitat Impacts/Enhancement Terrestrial Habitat Impacts/Enhancement SAR Impacts/Enhancement Geomorphology/Sediment Transport Groundwater Impacts/Enhancement Water Quality Impacts/Enhancement
Social/Cultural	**Economic**
Impact to Private Property Impact to Public Safety Impact to Public Access Impact to Cultural/Heritage Features Recreational Impacts/Enhancement	Construction Costs Maintenance/Future Costs Availability of Funding

Evaluation Process

- Scoring Options:
  - Pie Chart 
  - Faces 
  - Numerical (least benefit to most benefit)
    - -1, 0, 1
    - 1, 2, 3
    - 1, 2, 3, 4, 5
- Category weighting:
  - All equal (25%)
  - Increased weighting to one or more components

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Estimated Costs for Alternatives

Alternatives	Primary elements/ factors influencing costs	Initial Costs (1 to 5 years)	Operation and Maintenance
Alternative 1 Do Nothing	Repairs to concrete structures, site restoration in the event of failure (assumed)	$20,000 to $500,000	$5,000 – 20,000 per year
Alternative 2 Remove Dam, Construct Rocky Ramp	Dam removal, construction of grade control 'Rocky Ramp' , some sediment removal and site stabilization	$300,000 to $360,000	$1,500 to $3,000 per year
Alternative 3 Remove Dam, Construct Natural Channel	Dam removal, channel construction, sediment removal, site restoration	$600,000 to $800,000	$1,500 to $3,000 per year
Alternative 4 Remove Dam, Construct Offline Pond and Channel	Dam removal, channel construction, sediment removal, offline pond construction, site restoration	$800,000,to $1,000,000	$1,500 to $5,000 per year
Alternative 5 Replace Dam with New Earth Dam Downstream of Existing	Dam Removal, Excavation and installation of new core, bottom draw structure, sediment removal	$1,200,000 to $1,600,000	$5,000 to $35,000 per year. Dam retirement (75 yrs) costs $120,000[1]
Alternative 6 Replace Dam with New Earth Dam, lower crest	Dam Removal, Excavation and installation of new core, bottom draw structure, sediment removal	$1,100,000 to $1,500,000	$5,000 to $35,000 per year. Dam retirement (75 yrs) costs $120,000[1]
Alternative 7 Reconstruct Dam in Current Location	Dam Removal, Excavation and installation of new core, concrete dam, sediment removal	$1,800,000 to $2,100,000	$5,000 to $35,000 per year. Dam retirement (75 yrs) costs $120,000[1]

[1] dam retirement cost is based on 2016 estimate

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Evaluation - Technical

Scoring: *1) least positive benefit --> 5 = most positive benefit*

Criteria	Description	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7
TECHNICAL/ENGINEERING								
Dam Safety	Effectiveness of the alternative to address dam safety requirements, reduce risk of failure	1	4	5	5	3	3	4
Flooding Impacts/ Enhancement	Effectiveness of the alternative to manage or reduce flooding, or not cause negative impacts to flooding	1	3	5	4	2	3	2
Geomorphology/ Sediment Transport	Effectiveness of the alternative to promote dynamic stability of channel processes and mitigate sediment impacts	1	4	5	5	1	1	1
Protection of Infrastructure	Effectiveness of the alternative in mitigating risk to adjacent infrastructure (e.g., roads)	1	5	5	5	4	5	4
Constructability	Potential to construct the project using conventional, accepted construction and engineering practices	5	4	4	4	5	5	5
Implementability	Potential to implement the alternative, based on common accepted management practise	3	5	5	4	4	4	4
Approvability	Potential for regulatory agencies to grant approval for implementation	1	4	5	4	3	3	3
	TOTAL CATEGORY SCORE	13	29	34	31	22	24	23
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	9	21	**24**	22	16	17	16
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	**1**	2	6	4	5

1 – Do Nothing
2 – Remove Dam, Rocky Ramp
3 – Remove Dam, Natural Channel
4 – Remove Dam, Nat. Channel and off-line pond
5 – Replace Dam with Earthen Dam Downstream of Existing
6 – Replace Dam with Earth Dam at Lower Crest
7 – Reconstruct Dam in Current Location

Evaluation – Natural Environment

Scoring: *1) least positive benefit --> 5 = most positive benefit*

Criteria	Description	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7
NATURAL ENVIRONMENT								
Aquatic (River) Habitat Impacts/ Enhancement	Effectiveness of the alternative to enhance fisheries resources; fish diversity, food source, and fish passage	1	4	4	5	2	2	3
Aquatic (Pond) habitat Impacts/ Enhancements	Effectiveness of the alternative to enhance pond habitat (fish, fowl, and wildlife) resources, diversity, food source	3	2	1	3	5	4	5
Terrestrial Habitat Impacts/ Enhancement	Potential for impact and/or enhancement to connectivity and terrestrial/wildlife (amphibian, mammal etc.) habitat due to implementation of the alternative	1	4	4	5	1	3	1
SAR Impacts/ Enhancements	Potential for impact and/or enhancement to SAR species	1	3	4	4	1	1	1
Groundwater Impacts/ Enhancement	Potential for impact and/or enhancement to groundwater regimes in the project area (baseflow, recharge, etc.)	3	3	4	4	3	4	3
Water Quality Impacts/ Enhancement	Effectiveness of the alternative to improve water quality, TSS, phosphorous, nutrient uptake	1	3	5	5	1	2	1
	TOTAL CATEGORY SCORE	10	19	22	26	13	16	13
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	8	16	18	**22**	11	13	11
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	2	**1**	5	4	5

1 – Do Nothing
2 – Remove Dam, Rocky Ramp
3 – Remove Dam, Natural Channel
4 – Remove Dam, Nat. Channel and off-line pond
5 – Replace Dam with Earthen Dam Downstream of Existing
6 – Replace Dam with Earth Dam at Lower Crest
7 – Reconstruct Dam in Current Location

Evaluation – Social/Cultural

Scoring: *1) least positive benefit --> 5 = most positive benefit*

Criteria	Description	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7
SOCIAL / CULTURAL ENVIRONMENT								
Impact to Private Property	Measure of the impact to adjacent private property (i.e., loss of property, access to property, aesthetic)	3	4	3	3	4	4	4
Impact to Public Access	Measure of impact to public access (e.g., trails, recreation - picnic, fish, boat)	3	4	3	4	4	4	4
Impact to Public Safety	Measure of the impact to public safety in the surrounding area resulting from the alternative	1	3	5	4	3	3	3
Impact to Cultural/Heritage Features	Potential impact to existing cultural and/or heritage features in the project area	3	2	2	4	5	5	5
Recreational Impacts/ Enhancement	Measure of the impact to existing recreation and opportunities to enhance recreational activities in the project area	3	4	2	4	4	4	4
TOTAL CATEGORY SCORE		13	17	15	19	20	20	20
NORMALIZED CATEGORY SCORE (25% WEIGHTING)		13	17	15	19	**20**	**20**	**20**
CATEGORY RANKING (1 most preferred; 7 least preferred)		7	5	6	4	**1**	**1**	**1**

1 – Do Nothing
2 – Remove Dam, Rocky Ramp
3 – Remove Dam, Natural Channel
4 – Remove Dam, Nat. Channel and off-line pond
5 – Replace Dam with Earthen Dam Downstream of Existing
6 – Replace Dam with Earth Dam at Lower Crest
7 – Reconstruct Dam in Current Location

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Evaluation - Economic

Scoring: *1) least positive benefit --> 5 = most positive benefit*

Criteria	Description	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7
ECONOMIC								
Construction Costs	Relative measure of the initial costs to install/construct the proposed works, including environmental mitigation, sediment management, well mitigation etc.)	5	4	3	3	2	2	1
Maintenance /Future Costs	Relative measure of the ongoing maintenance costs following implementation (sedimentation)	1	3	4	4	2	2	2
Availability of Funding	Estimate of the availability for funding to implement the alternative	3	3	5	4	2	1	1
TOTAL CATEGORY SCORE		9	10	12	11	6	5	4
NORMALIZED CATEGORY SCORE (25% WEIGHTING)		15	17	**20**	18	10	8	7
CATEGORY RANKING (1 most preferred; 7 least preferred)		4	3	**1**	2	5	6	7

1 – Do Nothing
2 – Remove Dam, Rocky Ramp
3 – Remove Dam, Natural Channel
4 – Remove Dam, Nat. Channel and off-line pond
5 – Replace Dam with Earthen Dam Downstream of Existing
6 – Replace Dam with Earth Dam at Lower Crest
7 – Reconstruct Dam in Current Location

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Evaluation Results: Equal Weighting

Criteria	Description	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7
TECHNICAL/ENGINEERING								
	TOTAL CATEGORY SCORE	13	29	34	31	22	24	23
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	9	21	24	22	16	17	16
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	1	2	6	4	5
NATURAL ENVIRONMENT								
	TOTAL CATEGORY SCORE	10	19	22	26	13	16	14
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	8	16	18	22	11	13	12
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	2	1	6	4	5
SOCIAL / CULTURAL ENVIRONMENT								
	TOTAL CATEGORY SCORE	13	17	15	19	22	22	22
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	13	17	15	19	22	22	22
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	5	6	4	1	1	1
ECONOMIC								
	TOTAL CATEGORY SCORE	9	10	12	11	6	5	4
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	15	17	20	18	10	8	7
	CATEGORY RANKING (1 most preferred; 7 least preferred)	4	3	1	2	5	6	7
	OVERALL NORMALIZED CATEGORY SCORE (100% WEIGHTING)	46	70	78	81	59	61	57
PREFERRED OVERALL RANKING (1 most preferred; 5 least preferred)		7	3	2	1	5	4	6

1 – Do Nothing
2 – Remove Dam, Rocky Ramp
3 – Remove Dam, Natural Channel
4 – Remove Dam, Nat. Channel and off-line pond
5 – Replace Dam with Earthen Dam Downstream of Existing
6 – Replace Dam with Earth Dam at Lower Crest
7 – Reconstruct Dam in Current Location

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Evaluation Results: Altered Weighting

Criteria	Description	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7
TECHNICAL/ENGINEERING								
	TOTAL CATEGORY SCORE	13	29	34	31	22	24	23
	NORMALIZED CATEGORY SCORE (20% WEIGHTING)	7	17	19	18	13	14	13
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	1	2	6	4	5
NATURAL ENVIRONMENT								
	TOTAL CATEGORY SCORE	10	20	21	26	13	16	13
	NORMALIZED CATEGORY SCORE (20% WEIGHTING)	7	13	14	17	9	11	9
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	2	1	5	4	5
SOCIAL / CULTURAL ENVIRONMENT								
	TOTAL CATEGORY SCORE	13	17	15	18	22	22	22
	NORMALIZED CATEGORY SCORE (40% WEIGHTING)	21	27	24	29	35	35	35
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	5	6	4	1	1	1
ECONOMIC								
	TOTAL CATEGORY SCORE	9	10	12	11	6	5	4
	NORMALIZED CATEGORY SCORE (20% WEIGHTING)	12	13	16	15	8	7	5
	CATEGORY RANKING (1 most preferred; 7 least preferred)	4	3	1	2	5	6	7
	OVERALL NORMALIZED CATEGORY SCORE (100% WEIGHTING)	47	70	73	79	64	66	62
PREFERRED OVERALL RANKING (1 most preferred; 5 least preferred)		7	3	2	1	5	4	6

1 – Do Nothing
2 – Remove Dam, Rocky Ramp
3 – Remove Dam, Natural Channel
4 – Remove Dam, Nat. Channel and off-line pond
5 – Replace Dam with Earthen Dam Downstream of Existing
6 – Replace Dam with Earth Dam at Lower Crest
7 – Reconstruct Dam in Current Location

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Potential Impacts and Mitigation

- Technical (shallow groundwater wells)
  - Well inventory to be completed
  - Maintain local hydraulic head and/or drill deeper wells
- Environmental (removal of online pond)
  - Off-line pond to provide habitat for aquatic species (fish, fowl)
  - Include diversity of water depths and vegetation
  - Intercept groundwater (temperature and volume)
  - Receive flow from creek (volume, flushing)

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Potential Impacts and Mitigation

- Cultural history
  - Stage 2 Archaeological assessment
  - Where possible, replicate the landscape as a record of the time, place and use
    - Off-line pond, vegetation, and recreation potential
  - Explore mill demonstration potential
    - Sluice to convey water to mill
    - Off-line pond water volume/storage to support mill demonstration project
  - Replicate recreation opportunities
    - Angling, boating
  - Heritage interpretive signage

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Potential Impacts and Mitigation

- Recreational use
  - Maintain/enhance open water feature
  - Trails
  - Ramp (auditory aesthetic)
- Financial
  - Conservation authority funds
  - Township/Municipal contribution
  - Provincial funding sources

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Preferred Alternative Concept

Ward Pond - Kitchener

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Chiligo - Cambridge

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Next Steps and Contact Information

Next Steps for our project team include:

- Compile and review feedback from this Public Information Centre
- Further refine the 'Preferred Alternative'
- Proceed to completion and filing of Project Plan

To provide feedback and comments to the project team, please send all correspondence to the project email address:

harrington_dam@thamesriver.on.ca

For further information please contact:

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Supervisor, Water Control Structures
Upper Thames River Conservation Authority
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Public Information Centre #3
PIC Presentation Boards

Harrington Dam
Class Environmental Assessment

Public Information Centre #3

Upper Thames River Conservation Authority
Harrington Hall and Library
October 20th, 2016 7:00 p.m. to 9:00 p.m.

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Class Environmental Assessment Process and Problem Statement

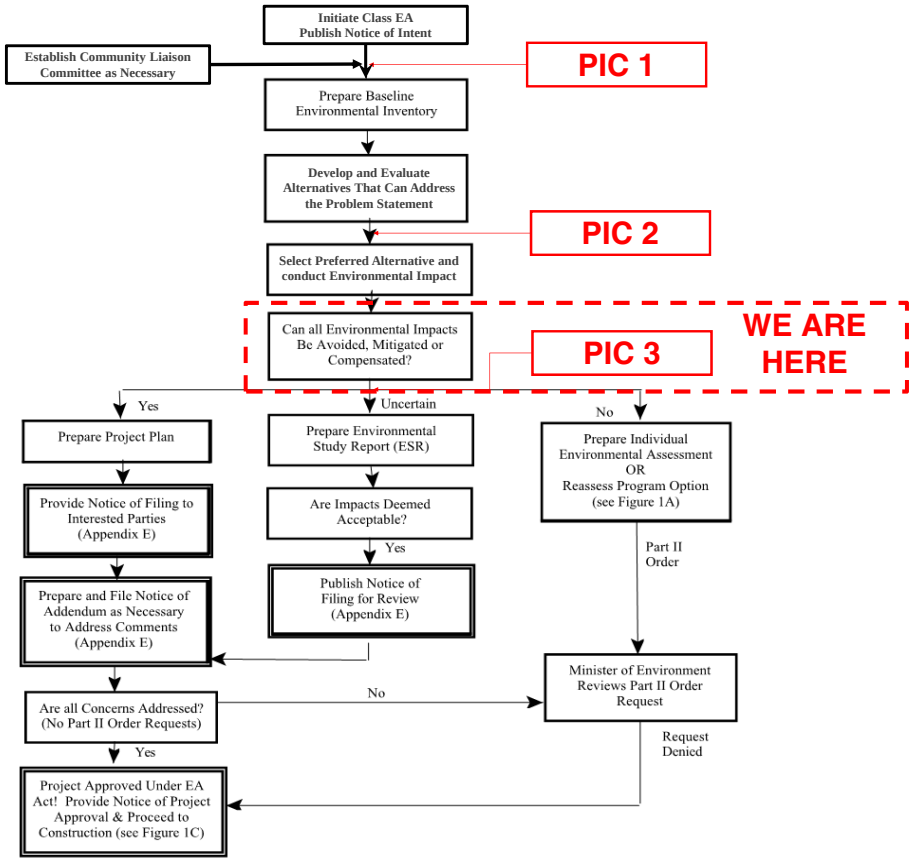
Problem Statement

Significant concerns related to the structural integrity and hydraulic capacity of the Harrington Dam have been identified through recent engineering assessments.

- ***Acres International. July, 2007****. Dam Safety Assessment Report for Harrington Dam: Identified issues with insufficient spillway capacity, spillway instability and embankment stability*
- ***Naylor Engineering Associates. September 2008****. Geotechnical Investigation Harrington Dam Embankment Stability Assessment: The existing dam does not meet current standards and is not considered stable under existing conditions*

A Class Environmental Assessment has been initiated to evaluate a range of alternatives to address the identified issues in consideration of the environmental, social, economic, and technical aspects of the dam.

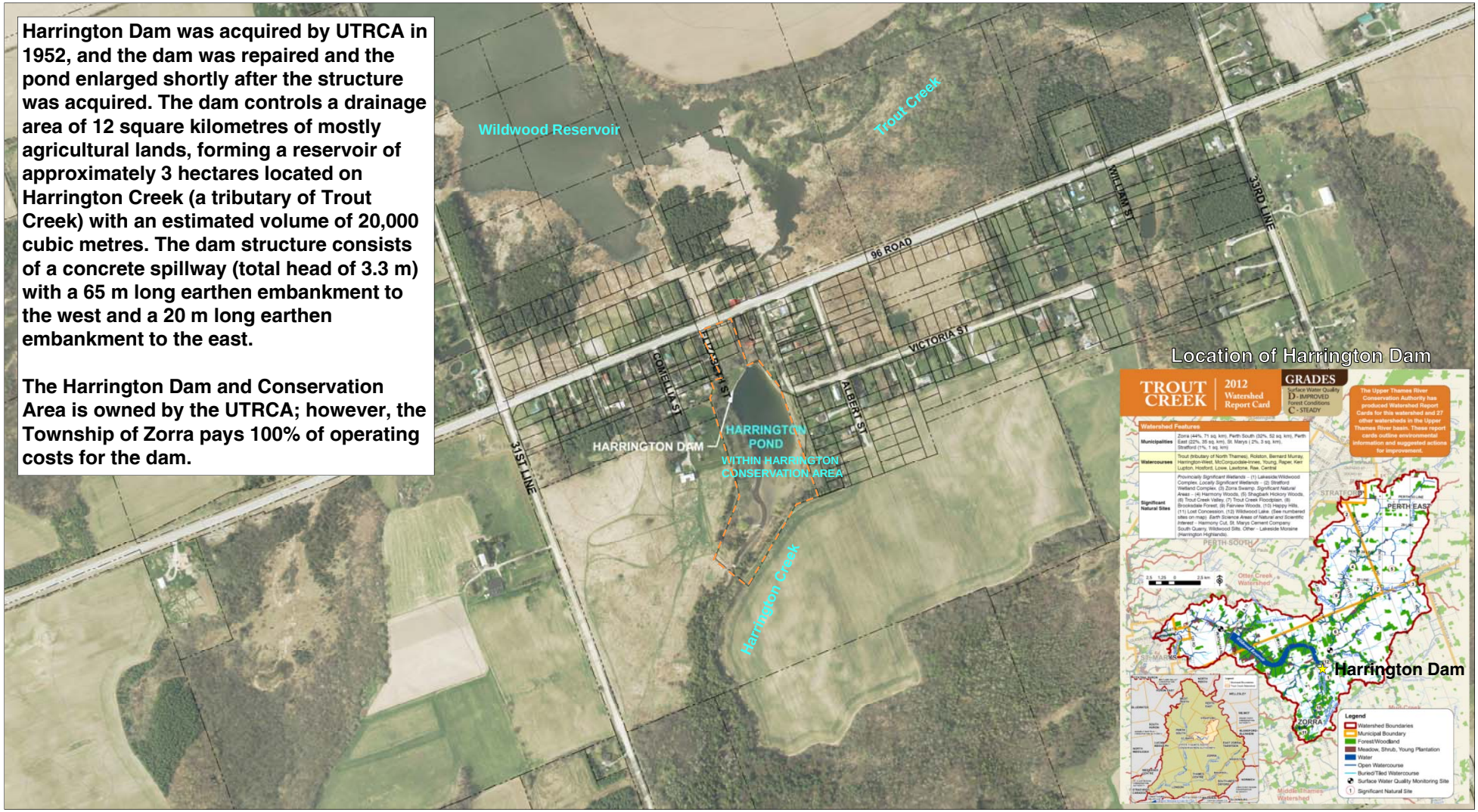
Class EA Process for Conservation Ontario Class Environmental Assessment for Remedial Flood and Erosion Control Works



Harrington Dam Study Area

Harrington Dam was acquired by UTRCA in 1952, and the dam was repaired and the pond enlarged shortly after the structure was acquired. The dam controls a drainage area of 12 square kilometres of mostly agricultural lands, forming a reservoir of approximately 3 hectares located on Harrington Creek (a tributary of Trout Creek) with an estimated volume of 20,000 cubic metres. The dam structure consists of a concrete spillway (total head of 3.3 m) with a 65 m long earthen embankment to the west and a 20 m long earthen embankment to the east.

The Harrington Dam and Conservation Area is owned by the UTRCA; however, the Township of Zorra pays 100% of operating costs for the dam.



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Cost Estimates

Alternatives	Primary elements/ Factors influencing costs	Initial Costs (1 to 5 years)	Operation and Maintenance
Alternative 1 Do Nothing	Repairs to concrete structures, site restoration in the event of failure (assumed)	$20,000 to $500,000	$5,000 – 20,000 per year
Alternative 2 Remove Dam, Construct Rocky Ramp	Dam removal, construction of grade control 'Rocky Ramp' , some sediment removal and site stabilization	$300,000 to $360,000	$1,500 to $3,000 per year
Alternative 3 Remove Dam, Construct Natural Channel	Dam removal, channel construction, sediment removal, site restoration	$600,000 to $800,000	$1,500 to $3,000 per year
Alternative 4 Remove Dam, Construct Offline Pond and Channel	Dam removal, channel construction, sediment removal, offline pond construction, site restoration	$800,000,to $1,000,000	$1,500 to $5,000 per year
Alternative 5 Replace Dam with New Earth Dam Downstream of Existing	Dam Removal, Excavation and installation of new core, bottom draw structure, sediment removal	$1,200,000 to $1,600,000	$5,000 to $35,000 per year. Dam retirement (75 yrs) costs $120,000[1]
Alternative 6 Replace Dam with New Earth Dam, lower crest	Dam Removal, Excavation and installation of new core, bottom draw structure, sediment removal	$1,100,000 to $1,500,000	$5,000 to $35,000 per year. Dam retirement (75 yrs) costs $120,000[1]
Alternative 7 Reconstruct Dam in Current Location	Dam Removal, Excavation and installation of new core, concrete dam, sediment removal	$1,800,000 to $2,100,000	$5,000 to $35,000 per year. Dam retirement (75 yrs) costs $120,000[1]

[1] dam retirement cost reflects today's (2016) cost

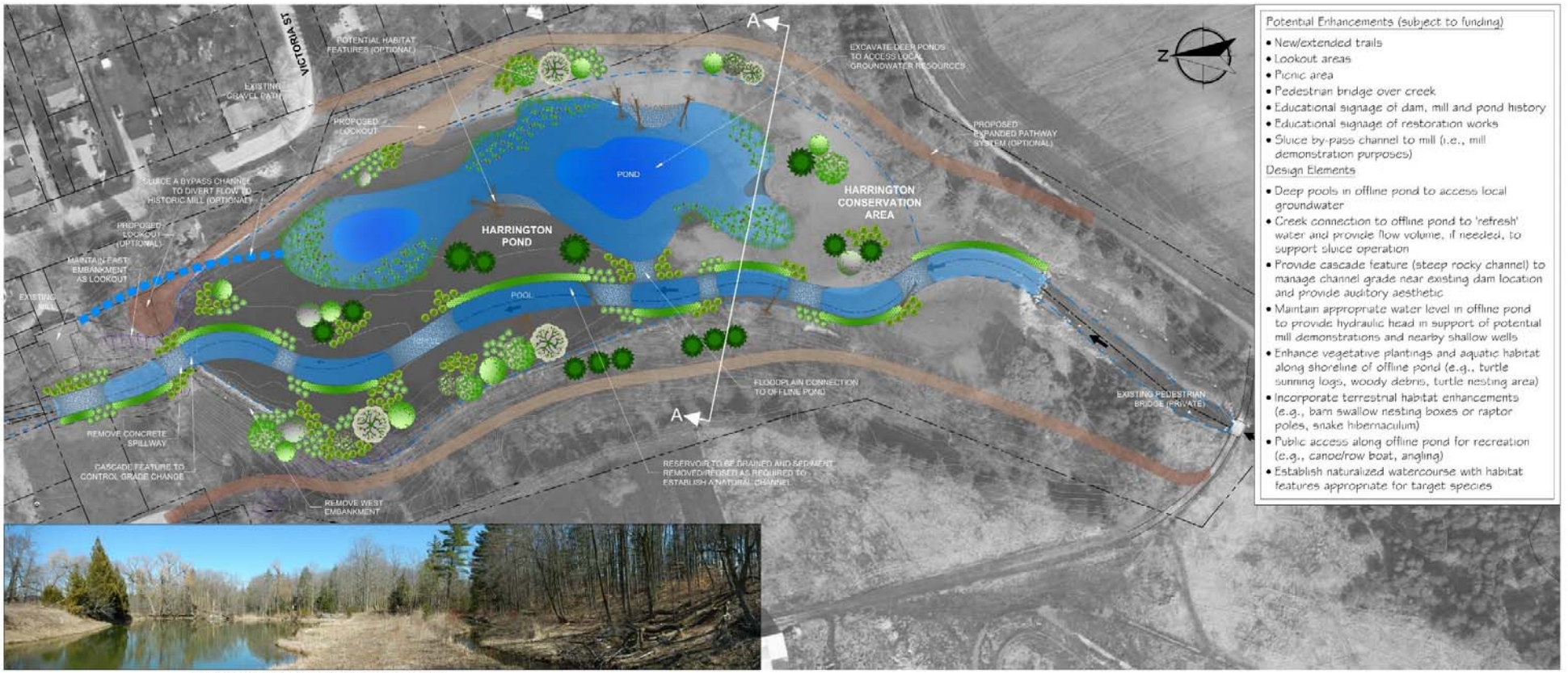
Alternative Evaluation – Equal Weighting

Criteria	Description	Alternative 1 Do Nothing	Alternative 2 Remove Dam and Install Rocky Ramp	Alternative 3 Remove Dam and Construct a Natural Channel	Alternative 4 Remove Dam and Construct an Offline Pond and Natural Channel	Alternative 5 Replace Dam with new Structure Downstream of the Existing Dam	Alternative 6 Replace Dam with an Earthen Dam of Lower Crest Elevation and Naturalize Perimeter	Alternative 7 Reconstruct the Existing Dam in Current Location with New Materials
TECHNICAL/ENGINEERING								
Dam Safety	Effectiveness of the alternative to address dam safety requirements, reduce risk of failure	1	4	5	5	3	3	4
Flooding Impacts/Enhancement	Effectiveness of the alternative to manage or reduce flooding, or not cause negative impacts to flooding	1	3	5	4	2	3	2
Geomorphology/Sediment Transport	Effectiveness of the alternative to promote dynamic stability of channel processes and mitigate sediment impacts	1	4	5	5	1	1	1
Protection of Infrastructure	Effectiveness of the alternative in mitigating risk to adjacent infrastructure (e.g., roads)	1	5	5	5	4	5	4
Constructability	Potential to construct the project using conventional, accepted construction and engineering practices	5	4	4	4	5	5	5
Implementability	Potential to implement the alternative, based on common accepted management practise	3	5	5	4	4	4	4
Approvability	Potential for regulatory agencies to grant approval for implementation	1	4	5	4	3	3	3
	TOTAL CATEGORY SCORE	13	29	34	31	22	24	23
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	9	21	24	22	16	17	16
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	1	2	6	4	5
NATURAL ENVIRONMENT								
Aquatic (River) Habitat Impacts/Enhancement	Effectiveness of the alternative to enhance fisheries resources; fish diversity, food source, and fish passage	1	4	4	5	2	2	3
Aquatic (Pond) habitat Impacts/Enhancements								
Terrestrial Habitat Impacts/Enhancement	Potential for impact and/or enhancement to connectivity and terrestrial/wildlife (amphibian, mammal etc.) habitat due to implementation of the alternative	1	4	4	5	1	3	1
SAR Impacts/Enhancements	Potential for impact and/or enhancement to SAR species	1	3	4	4	1	1	1
Groundwater Impacts/Enhancement	Potential for impact and/or enhancement to groundwater regimes in the project area (baseflow, recharge, etc.)	3	3	4	4	3	4	3
Water Quality Impacts/Enhancement	Effectiveness of the alternative to improve water quality, TSS, phosphorous, nutrient uptake	1	3	5	5	1	2	1
	TOTAL CATEGORY SCORE	10	19	22	26	13	16	13
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	8	16	18	22	11	13	11
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	3	2	1	5	4	5
SOCIAL / CULTURAL ENVIRONMENT								
Impact to Private Property	Measure of the impact to adjacent private property (i.e., loss of property, access to property, aesthetic)	3	4	3	3	4	4	4
Impact to Public Access	Measure of impact to public access (e.g., trails, recreation - picnic, fish, boat)	3	4	3	4	4	4	4
Impact to Public Safety	Measure of the impact to public safety in the surrounding area resulting from the alternative	1	3	5	4	3	3	3
Impact to Cultural/Heritage Features	Potential impact to existing cultural and/or heritage features in the project area	3	2	2	4	5	5	5
Recreational Impacts/Enhancement	Measure of the impact to existing recreation and opportunities to enhance recreational activities in the project area	3	4	2	4	4	4	4
	TOTAL CATEGORY SCORE	13	17	15	19	20	20	20
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	13	17	15	19	20	20	20
	CATEGORY RANKING (1 most preferred; 7 least preferred)	7	5	6	4	1	1	1
ECONOMIC								
Construction Costs	Relative measure of the initial costs to install/construct the proposed works, including environmental mitigation, sediment management, well mitigation etc.)	5	4	3	3	2	2	1
Maintenance/Future Costs	Relative measure of the ongoing maintenance costs following implementation (sedimentation)	1	3	4	4	2	2	2
Availability of Funding	Estimate of the availability for funding to implement the alternative	3	3	5	4	2	1	1
	TOTAL CATEGORY SCORE	9	10	12	11	6	5	4
	NORMALIZED CATEGORY SCORE (25% WEIGHTING)	15	17	20	18	10	8	7
	CATEGORY RANKING (1 most preferred; 7 least preferred)	4	3	1	2	5	6	7
	OVERALL NORMALIZED CATEGORY SCORE (100% WEIGHTING)	46	70	78	81	57	58	54
	PREFERRED OVERALL RANKING (1 most preferred; 5 least preferred)	7	3	2	1	5	4	6
Notes:	Scoring ranks alternatives in their potential to address the criteria from a least positive to a most positive impact, 1 being the least positive and 5 being the most positive							
	Negative impacts which may be involved in some alternatives, such as site disturbance, are temporary and are seen as mitigatable impacts							

Alternative Evaluation – Altered Weighting

Criteria	Description	Alternative 1 Do Nothing	Alternative 2 Remove Dam and Install Rocky Ramp	Alternative 3 Remove Dam and Construct a Natural Channel	Alternative 4 Remove Dam and Construct an Offline Pond and Natural Channel	Alternative 5 Replace Dam with new Structure Downstream of the Existing Dam	Alternative 6 Replace Dam with an Earthen Dam of Lower Crest Elevation and Naturalize Perimeter	Alternative 7 Reconstruct the Existing Dam in Current Location with New Materials
TECHNICAL/ENGINEERING								
Dam Safety	Effectiveness of the alternative to address dam safety requirements, reduce risk of failure	**1**	**4**	**5**	**5**	**3**	**3**	**4**
Flooding Impacts/Enhancement	Effectiveness of the alternative to manage or reduce flooding, or not cause negative impacts to flooding	1	3	5	4	2	3	2
Geomorphology/Sediment Transport	Effectiveness of the alternative to promote dynamic stability of channel processes and mitigate sediment impacts	1	4	5	5	1	1	1
Protection of Infrastructure	Effectiveness of the alternative in mitigating risk to adjacent infrastructure (e.g., roads)	1	5	5	5	4	5	4
Constructability	Potential to construct the project using conventional, accepted construction and engineering practices	5	4	4	4	5	5	5
Implementability	Potential to implement the alternative, based on common accepted management practise	3	5	5	4	4	4	4
Approvability	Potential for regulatory agencies to grant approval for implementation	1	4	5	4	3	3	3
	TOTAL CATEGORY SCORE	**13**	**29**	**34**	**31**	**22**	**24**	**23**
	NORMALIZED CATEGORY SCORE (20% WEIGHTING)	**7**	**17**	**19**	**18**	**13**	**14**	**13**
	CATEGORY RANKING (1 most preferred; 7 least preferred)	**7**	**3**	**1**	**2**	**6**	**4**	**5**
NATURAL ENVIRONMENT								
Aquatic (River) Habitat Impacts/Enhancement	Effectiveness of the alternative to enhance fisheries resources; fish diversity, food source, and fish passage	1	4	4	5	2	2	2
Aquatic (Pond) habitat Impacts/Enhancements	Effectiveness of the alternative to enhance pond habitat (fish, fowl, and wildlife) resources, diversity, food source	3	2	1	3	5	4	5
Terrestrial Habitat Impacts/Enhancement	Potential for impact and/or enhancement to connectivity and terrestrial/wildlife (amphibian, mammal etc.) habitat due to implementation of the alternative	1	4	4	5	1	3	1
SAR Impacts/Enhancements	Potential for impact and/or enhancement to SAR species	1	3	4	4	1	1	1
Groundwater Impacts/Enhancement	Potential for impact and/or enhancement to groundwater regimes in the project area (baseflow, recharge, etc.)	3	4	3	4	3	4	3
Water Quality Impacts/Enhancement	Effectiveness of the alternative to improve water quality, TSS, phosphorous, nutrient uptake	1	3	5	5	1	2	1
	TOTAL CATEGORY SCORE	**10**	**20**	**21**	**26**	**13**	**16**	**13**
	NORMALIZED CATEGORY SCORE (20% WEIGHTING)	**7**	**13**	**14**	**17**	**9**	**11**	**9**
	CATEGORY RANKING (1 most preferred; 7 least preferred)	**7**	**3**	**2**	**1**	**5**	**4**	**5**
Impact to Private Property	Measure of the impact to adjacent private property (i.e., loss of property, access to property, aesthetic)	3	4	3	3	4	4	4
Impact to Public Access	Measure of impact to public access (e.g., trails, recreation - picnic, fish, boat)	3	4	3	4	4	4	4
Impact to Public Safety	Measure of the impact to public safety in the surrounding area resulting from the alternative	1	3	5	4	4	4	4
Impact to Cultural/Heritage Features	Potential impact to existing cultural and/or heritage features in the project area	3	2	2	3	5	5	5
Recreational Impacts/Enhancement	Measure of the impact to existing recreation and opportunities to enhance recreational activities in the project area	3	4	2	4	5	5	5
	TOTAL CATEGORY SCORE	**13**	**17**	**15**	**18**	**22**	**22**	**22**
	NORMALIZED CATEGORY SCORE (40% WEIGHTING)	**21**	**27**	**24**	**29**	**35**	**35**	**35**
	CATEGORY RANKING (1 most preferred; 7 least preferred)	**7**	**5**	**6**	**4**	**1**	**1**	**1**
Construction Costs	Relative measure of the initial costs to install/construct the proposed works, including environmental mitigation, sediment management, well mitigation etc.)	5	4	3	3	2	2	1
Maintenance/Future Costs	Relative measure of the ongoing maintenance costs following implementation (sedimentation)	1	3	4	4	2	2	2
Availability of Funding	Estimate of the availability for funding to implement the alternative	3	3	5	4	2	1	1
	TOTAL CATEGORY SCORE	**9**	**10**	**12**	**11**	**6**	**5**	**4**
	NORMALIZED CATEGORY SCORE (20% WEIGHTING)	**12**	**13**	**16**	**15**	**8**	**7**	**5**
	CATEGORY RANKING (1 most preferred; 7 least preferred)	**4**	**3**	**1**	**2**	**5**	**6**	**7**
	OVERALL NORMALIZED CATEGORY SCORE (100% WEIGHTING)	**47**	**70**	**73**	**79**	**64**	**66**	**62**
	PREFERRED OVERALL RANKING (1 most preferred; 5 least preferred)	**7**	**3**	**2**	**1**	**5**	**4**	**6**
Notes:	Scoring ranks alternatives in their potential to address the criteria from a least positive to a most positive impact, 1 being the least positive and 5 being the most positive							
	Negative impacts which may be involved in some alternatives, such as site disturbance, are temporary and are seen as mitigatable impacts							

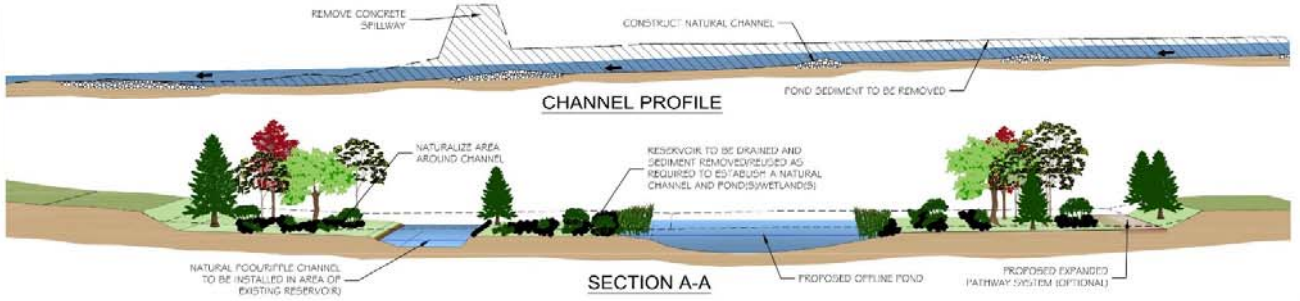
Preferred Alternative



WARD'S POND WITH CREEK (KITCHENER)

CHILIGO POND WITH CREEK (CAMBRIDGE)

CHILIGO POND (CAMBRIDGE)



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HARRINGTON DAM CLASS ENVIRONMENTAL ASSESSMENT

EVALUATION OUTCOME
REMOVE DAM - NATURAL CHANNEL WITH OFFLINE POND

UPPER THAMES RIVER CONSERVATION AUTHORITY

ecosystem recovery Inc. PROFESSIONAL ENGINEERS

Next Steps and Contact Information

Next Steps for our project team include:

- **Compile and review feedback from this Public Information Centre**
- **Update preferred alternative**
- **Complete and file Project Plan**

To provide feedback and comments to the project team, please send all correspondence to the project email address:

harrington_dam@thamesriver.on.ca

For further information please contact:

Mr. Rick Goldt, C.E.T.
Supervisor, Water Control Structures
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Waterloo, Ontario, N2L 5V4
Tel: 519-621-1500
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ecosystem recovery inc.
PROFESSIONAL ENGINEERS

Meeting Minutes

B1-550 Parkside Drive, Waterloo, Ontario, N2L 5V4
Tel 519.621.1500 ■ Fax 226.240.1080

Project:	Harrington Dam EA	**Meeting No.:**	PIC 3
		Meeting Date:	October 20, 2016
Project No.:	1505	**Meeting Time:**	7 – 9 pm
Recorder:	M. Pushkar	**Report date:**	October 24, 2016

Location:	Harrington Hall and Library – 539 Victoria Street, Harrington, ON
Attendees:	Rick Goldt, Bill Mackie, Karen Winfield (UTRCA) Wolfgang Wolter, Mariëtte Pushkar (ERI) Marie Keasey, Doug Matheson, Marcus Ryan, Margaret Lupton (Zorra Township) Members of the Public (31)
Purpose:	Public Information Centre 3 – Harrington Dam

Item	Description	Action By
1.	**Presentation** • Presentation of study process, evaluation criteria and results, and preferred alternative was made by Wolfgang Wolter (ERI) and Mariëtte Pushkar (ERI)	Info
2.	**Questions posed by members of the public and answers provided by team:** **1. What is the size of the existing pond? What is the size of the proposed pond?** The existing pond covers an approximate area of 0.03 km^2. The size of the proposed offline pond would be determined during detailed design, based on: • Technical considerations • Groundwater contributions • Berm width sized to separate offline pond from natural channel • Detailed design o Hydrogeological investigation for groundwater volume o Temperature modeling and circulation **2. Would the proposed pond be constructed closest to Victoria Street?** The pond could be placed closest to Victoria Street so that water could be sluiced to the mill. **3. Question regarding cost consideration; 1) what is cost for terrestrial component, 2) is the cost of landscape included?** 1) Terrestrial cost refers to the cost for natural materials to maintain the nature of existing pond 2) Yes, landscape cost is included. Landscape restoration includes; vegetative site enhancements. **4. Ponds (off-line) seemed stagnant on tour; could this occur here? Would this be a source for mosquitos and what could be done to mitigate?** • Adjust refresh rate to positively affect the pond with no negative effect to the creek • Ensuring groundwater infiltration will aid in mitigation • Properly size the pond surface area	

5. Does the cost estimate include trail and bridges?

The trail has a low cost and is included. Bridges have a higher cost and, ideally, the design would not require a bridge (i.e., they are optional).

6. We are happy to see the proposed sluice to the Mill. The Mill requires a certain amount of energy (head); will the off-line pond provide sufficient head to enable the Mill operations?

The off-line pond could have potential limitations (e.g., volume recharge due to groundwater contributions). Operations could be established to enable 'turn-on, close' valves for the sluice so that water is used only when needed for demonstration purposes. Further considerations, during detailed design could be examined to enable some flow diversion during lower flows.

7. The social evaluation refers to boating potential. What boating can occur on the off-line pond – it seems too small.

Ideally, the pond will be big enough to allow for a rowboat or canoe, or raft. The size of the pond would be determined at detailed design.

8. For the "Do Nothing" option, what are the risks associated with failure?

Under Do-Nothing, the risk for dam failure remains:

- As water overtops, hydraulic conditions of the water erode the embankment slope and thereby weaken the embankment materials, leading to failure.
- Embankment dams tend to fail when overtopped; most embankment dams are unable to withstand sustained overtopping without a high probability of failure (US Department of the Interior Bureau of Reclamation, 2013). (note: Acres (2007) indicated that the spillway has inadequate capacity and insufficient freeboard). (*this bullet point was added to the minutes and not directly discussed at the meeting*)
- Notching of the upstream embankment face may occur over time due to wave action; this weakens the embankment materials. (note: Acres (2007) observed benching due to wave action in the left embankment; Acres (2007) also noted signs of wash-out in the contact between left embankment fill and concrete spillway that may have occurred during last dam overtopping in the year 2000). (*this bullet point was added to the minutes and not directly discussed at the meeting*)
- Over time, seepage through the embankment erodes fine materials from the soil matrix; piping and cavities may develop which weaken the embankment materials. (note: Acres (2007) had observed seepage on the downstream slope of the embankment and bulging in the lower left embankment which may be due to high groundwater pressure). (*this bullet point was added to the minutes and not directly discussed at the meeting*)
- If/when the dam fails, then sediment from the failing embankment and from within the pond will move downstream into the channel. The sediment will be deposited on the floodplain and in the channel where it can damage/destroy aquatic habitat. Sediment would also be conveyed into Wildwood Reservoir.
- This creates risk to biotic, aquatic and channel stability
- Potential impacts to roadway.
- Downstream properties would be affected.

Has there been any consideration to providing a capture area downstream, to enable sediment deposition and water detention?

This can be examined

9. What is the volume of water in the pond?

Based on DSA report, the existing pond contains approximately 20,000 m^3.

10. Will the off-line pond only replenish during a flood or will there be another method?

There are different options, including providing an intake from the channel with a pipe and valve to the pond. The design would need to establish an inflow threshold at the channel during bankfull to 2 year flows.

11. There exists sediment in the existing pond; will this continue to be an issue for the off-line pond?

- The off-line pond is not expected to fill-in given that most sediment will move through the channel
- There are currently multiple sources of sediment to the pond including the upstream watershed (e.g., runoff from fields enters small channels that flow into the creek), erosion within the creek corridor (e.g., banks), local drainage into the pond (surface water runoff from adjacent properties)
- Landuse changes have been occurring, which is reducing the volume of sediment delivered to the pond. Establishment of a vegetative buffer between fields and pond by the community is beneficial to reducing sediment runoff into the pond from local sources.
- The first 25 mm of precipitation is typically correlated with flows/discharge that fills the channel (i.e., the bankfull flow). During such flow events, water will move sediment downstream through the channel. As the discharge in the creek increases, water will overtop channel banks and a portion of the sediment may be deposited on the floodplain. Only a small portion of sediment would continue to fill the off-line pond.

Cost is provided for removal but no removal has occurred yet; is costing erroneous?

- Online pond alternatives looked at sediment removal to maintain depth for cooler water. The actual sediment removal rate will depend on the future sediment loading into the pond.
- Historically, the dam has failed (1903, 1949); sediment would have moved downstream at that time.
- Landuse practices have changed over time (e.g., buffers have become established which has reduced sediment loading to the pond)
- Sediment will continue to impact the pond

Would the off-line pond be dredged?

- The existing sediment would be moved or removed to construct the off-line pond.

Most sediment in pond now was from adjacent field (planting) and not upstream; community planting efforts created a buffer to reduce sediment loading… has the sediment source stopped now?

- Sediment in the pond would also have originated from upstream areas in the watershed and from within the upstream channel corridor. Sediment supply/loading has not stopped but may have been reduced over time due to changes in landuse and establishment of vegetative buffers. Establishment of the vegetative buffer between fields and pond, by the community, is beneficial to reducing sediment runoff into the pond from local sources.

12. How was Alternative 7 cost determined;

- A clay core would be required to be 4 m deeper than existing ground
- Cost was based on material, removals, compaction etc.

- Costs are based on current material and labour costs based on other projects and estimates

13. What is the timeframe from construction to walking around and thinking that the area looks good?

- It could take up to 20 years for the site to become fully mature (e.g., trees)
- Six (6) weeks for the site to start greening up

14. Archaeologist going to be there any time?

- If the works extend outside of the pond area, then a Phase 2 assessment may be required. Similarly, if the excavation is intended to go deeper than existing elevations, then archaeological assessments may be required.
- If work remains within the existing footprint of the pond, which was assessed as disturbed ground, then it is unlikely to require archaeological assessments.

15. Did community input make a difference in the weighting process?

- Yes, community input did impact the weighting process – additional criteria were used to evaluate the alternatives based on public input at PIC 2 and comments received.
- The community input influenced the off-line pond alternative

16. Question regarding funding sources?

Potential sources include:

- Conservation Authority project and land
- Generally, funds for repair/rehabilitate dams is more difficult to attain
- The funding depends on the alternative and its elements
- Community and municipality contributions
- Potential federal funding initiatives – these tend to be focused on recreational fisheries enhancement

17. What can be done if funding is not received? Would a lower scoring option be chosen?

- Implementing the preferred alternative may take a few years. Another alternative may be selected, but objective is to go with preferred.

18. In terms of permits, who do you have to answer to?

- All agencies with interest in the project; DFO, MNR, UTRCA, MOECC (e.g., PTTW).

It has been 10 years since the last investigation. Has there been substantial changes to the dam (i.e. deterioration) and if so, how much?

- Information is provided in the dam reports.
- UTRCA has changed their management of the pond (reduced head, etc.) in response to the dam safety reports.

Any dam failures recently (last 20 years)?

- None in the UTRCA jurisdiction

19. What are the impacts to groundwater?

- Shallow wells may be impacted
- A more detailed look at the impacts would be required during detailed design

Was the cost of groundwater impacts taken into consideration?

- Yes

20. Opportunity to send comments to MOE

- Send comments to UTRCA first to see if they can be resolved.
- If comments cannot be resolved, then once the project is filed, there is a 30 day review period in which comment could be sent to MOE.

Will the 30 days be well publicized?

- Yes, public notices would be provided to indicate that the report is completed and a 30 day review period is in effect.

21. Regarding cost for the "Do Nothing" alternative, what is the existing operation and maintenance cost?

- $10,000 is received annually from the township for operation and maintenance and funds for studies

Did those funds get used to pay for the EA?

- Yes, they paid, in part, for the EA study

What is the impact to private property; is there any consideration on property value?

- The selection of an alternative should not be based on individual landowner property values, as an EA study is a provincial process.

22. The pond is now used by fire fighters for water and training. How will this be affected? Will removal of the dam affect surrounding water bodies?

- Determination of the potential for the pond to continue to be used by the fire fighters will be made during detailed design.
- If the body of water changes then there may be another cost for building a new feature as a water source (e.g., a storage tank)
- The township is waiting for outcome of this study before reviewing potential alternatives.

Was this cost considered in the alternatives

- No.

Firefighting is an essential service, this needs to be included

- noted

23. Evaluation Process – Social/Cultural: Can the economic criteria be dropped? What if the community came up with the money for dam reconstruction (Alternative 7)? Wont Alternative 7 come out ahead then?

- This would be considered a funding source and would be evaluated accordingly
- Besides funding, permit approvals will be difficult to obtain for a new dam structure.
- This is a provincial process and needs to follow rules

24. How has the change in management of the dam bought us time? Have any other temporary measures been looked at (e.g. bentonite)?

- The main issue is the foundation of the dam.
- Geotechnical investigation determined that if anything was done to the dam, it could compromise stability.

25. What is Q100? In 2000, 3 inches of rain occurred in 6 hours.

- This refers to storm event frequency (i.e., the 100-year flood event)
- The existing capacity is less than Q100

	• Concern raised with engineering report pertain to its foundation, failure can occur anytime. The reports are available on the website. **26. Have considerations been made to reduce risk (e.g. roads) in the event of dam failure due to sediment and water? This would mitigate some impacts and reduce severity of do-nothing alternative?** • ERI had done modeling to look at the effects; this was presented at PIC 2. **27. Concern raised with regards to firefighting. Could a water holding tank be constructed at the ball diamond?** • Yes, a cistern could be constructed	

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

Public Information Centre – Comment Form

The Environmental Assessment for the Harrington Dam, in the Harrington Conservation Area, is intended to address safety concerns identified as part of the Dam Safety Assessment (ACRES, 2007) including insufficient spillway capacity, spillway instability and embankment stability. Through the study, potential alternatives will be evaluated to determine a course of action to mitigate dam safety concerns.

The project is being carried out in accordance with the requirements of the *Conservation Ontario Class Environmental Assessment.* The study is being undertaken by the Upper Thames River Conservation Authority (UTRCA) in partnership with the Township of Zorra.

Public consultation is a key component of this study. This Public Information Centre (PIC) is held to receive public input on the possible future alternatives for the Harrington Dam. Any feedback and comments provided will become part of the public record for this project.

Please provide your comments regarding the preferred alternative below.

Comments:

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: _____

Address & Postal Code: _____

E-mail Address: _____

Please submit comments by November 3, 2016

Thank you for your participation.

Personal information on this form is collected under the authority of the Conservation Authorities Act and will be used for the purposes of the Embro Dam Class EA only. Questions about the collection of personal information should be directed to: General Manager, Upper Thames River Conservation Authority, 1424 Clarke Rd., London, Ontario. N5V 5B9 (519) 451-2800.

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

Sign-in Sheet

PUBLIC INFORMATION CENTRE 3
October 20, 2016

Name	Address	Contact Number
DOUG MATHESON	[redacted]	
BRIGID KISH MONTEITH		
P Hunter		
Wendy Willms Gerben Ger		
JAMES FITZGERALD		
BILL MATHESON		
Cher Spragee		
SCOTT DENNIS		
Marcus Ry		
BERNIE SCHAEFER		

Personal information on this form is collected under the authority of the Conservation Authorities Act and will be used for the purposes of the Harrington Dam Class EA only. Questions about the collection of personal information should be directed to: General Manager, Upper Thames River Conservation Authority, 1424 Clarke Rd., London, Ontario. N5V 5B9 (519) 451-2800.

UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Sign-in Sheet

PUBLIC INFORMATION CENTRE 3
October 20, 2016

Name	Address	Contact Number
Gavin Houston.	[redacted]	
Nancy Skillings		
Phil KERR		
Miles Potter		
Shirley McCall-Ward		
Katherine Grieve		
Jim Grieve		
MATTHEW ROSEN		
Aileen Kitteman		
Rich & Jean Baker		
Sam Coghlan		
SID EASTMAN		

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Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

Sign-in Sheet

PUBLIC INFORMATION CENTRE 3
October 20, 2016

Name	Address	Contact Number
MARIE KEASEY	[redacted]	
Dorothy Courtnage		
BRENDA KRANTZ		
BETTY VAN DE KEMP		
LOUISE LANDRETH		
Doug Landreth		
Margaret Lupton		
SEANA MCKENNA		
Nicole Smith		
EUGENE KITTMER		
Brent Poppleton		

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Rick Gol Harrington Communi y

From: Bonnie Di Bernar99o [redacted]
To: "gold9tr@thar9esriver9on.c9" <gold9tr@thar9esriver9on.c9>
D e: 11/10/2016 7:29 PM
Subjec : H9rrington Community

I am writiR tR R ead with yRu aRd the Rthers tR R t destrRy the ReacefuRrecreatiR a R area that is HarriR tR PR d.R

My famiRy ived aRd is stiR iviR iR HarriR tR . My famiRy R iR back ReReratiR s where R cR ected tR this R ace aR their Rives. It is a R ace fRr famiRy reuRiR s aRd RicRics theR R aRd R w.R
My cRusiR was a vR uRteer whR restRred the Rrist miR aRd the R d is Rart Rf the miR's R restRratiR R iR fRrward.R
It wRu d be R ve y fRr the HarriR tR CR servatiR area tR bRast Rf a fuRy R eratiR a R rist miR frRm the Rast.R
This a R u ar fishiR area.R
I hear that there is a RrRuR that is attemRtiR tR raise fuRds fRr reRair tR the damR.R
It wRu d be Rice tR thiRk that the R wers that be cRu d Rive this RrRuR the time they R eed tR fiRd the fuRdiR .R
ThaRk yRu aRaiR fRr yRur time.R

eRards,R
BR ie Di BerRardR
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that is a ready writteR
iRside yRu.R
- David WhyteR

Rick Gol arrington D m

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To: "goldt @thamMMs iveMon.cM <goldt @thamMMs iveMon.cM>
D e: 11/15/2016 9:23 AM
Subjec : ington DMn

RickM
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undr ds of mMn-hours, amd thousMds of dollMs - p ovidedMby both p ivaM citizMns aMd Tillium M G nts - haMe bM investMd in theMstorMion of theMMill. FundrMsingMcontiMus to this dayM, with funds M b ing allocMd towMds rMstoring theMmill to it origiM1 opM tionaMstM - worki g musMm asMt M wM . This cMn only bMaccomplishedMby usMof theMw t f om theMpond to powM a turbiM and m ke M theMmill function asMt did whenMit wMs fi st const uctMd. It is theMeMtfMt hopMof both mysMf amd my M f llow mMnbMs of theMHM ington & AM Community AssociMion - both pMt, pMs nt amd futurM- thaMM theMMill bMa musMm, amplMce to connMt todayMwith theMpioneMing spi it of theMs ttlMs of this aM .M

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TheMPond aMd Mill aM theMeMt amd soul of this community!M
PlMs do not desMoy theMPond by rMmoving theMdam, amd do not negMt all theMa d work thaMhasMbM M doneMto rMstorMtheMMill.M
SiMcMlyM
BM daKMntzM

From: Barb<Westela<en<[redacted]
To: goldtr@thamesr ver.on.<a><
D : 11/15/2016<2:02<PM<
bj c : Harr ngton<pond<

Mr. Goldt,<
My<name<s<
Barb<Westela<en<(S haefer). I<grew<up<Harr ngton,<n perhaps<more<nno<ent<days,<but I<spent<my<
afternoons<and even ngs<at the<pond<that<you<feel needs<to be destroyed.<I get so<frustrated<that<money<s<
spent<where<t does<not<have<to<be<spent.<That<dam<w ll<last<another<100<years.<If<t<sn't<bro<en,<why<do<
you<have to<f x t!?< K ds<don't<spend<the r t me there<t< e we<used<to,<but<t s st ll<a beaut ful area of<water<
and land<that<s enjoyed by<many<and<s home<to<many<spe< es<of<w ld l fe. Leave<t alone,<save the<
beauty<and don't<spend<unne<essar ly!<
S n<erely,<
Barb<Westela<en<
St.<Marys<

Sent<from<my<Phone<

Rick Gol Harrington Pon

From: Eugene Ki/ e/ [redacted]
To: "Rick Goldt/(goldt/@/ha/ es/ive/.on.ca)" <goldt/@/ha/ es/ive/.on.ca>
D e: 11/15/2016 2:01 PM
Subjec : Ha/ ingtón Pond

Rick : Bei5 5 5 time reside5t 5f H5rri5 t5 5ur f5mi y h5s ived i5 the s5me h5use si5ce 1913 , & my Gre5t 5 r5 df5ther sett ed here i5 1857 we w5u d ike t5 see the P5 d & existi5 D5m rem5i5 u5t5uched , rem5vi5 5 the D5m w5u d 5pe5 up the creek feedi5 the p5 d t5 i5v5sive species ike Pike which w5u d destr5y the Br5 k 5 Tr5ut which h5ve bee5 there si5ce the E5r y 1900,s ,he5rd st5rys fr5m my C5usi5s the F5rmer Mck5ys c5tchi5 5 Tr5ut there bef5re WW I ,5s they were very pr5ud 5f their Br5ther ED Mck5y WW I F5yi5 Ace th5t Gr5h5m 5 Br5 d 5f Wester5 U5iversity is writi5 5 b5 k 5 , 5 ther 5ei5hb5ur rem5rked th5t the wet 5re5 5utside the 5 D5m th5t is r5isi5 c5 cer5 is 5 t 5 e5k 5s he is 78 Ye5rs 5 d & the 5re5 w5s the s5me 70 ye5rs 5 whe5 he 5 rew up there , c5u d just be 5 spri5 5s the 5ri5i5 5 me f5r H5rri5 t5 w5s Spri5 vi5e ,5 s5 whe5 the D5m 5 w5s c5 structed he 5 ted the f5 ti5 were Pi ed Drive5 i5 m5ki5 the D5m Secure , 5 s5 there is 5 5 ther 5 p5 d upstre5m bui t by H5r5 d M xwe5 I5 the e5r y 50,s 5b5ut the s5me size 5s H5rri5 t5 with5ut the he5vy 5 c5 structi5 ike the D5m i5 H5rri5 t5 th5t 5ever h5s 5 y pr5b ems ,Mr M xwe5 w5s very pr5ud 5f the Br5 k 5 Tr5ut i5 his p5 d & h5d m5 y pe5p e fr5m St M rys 5s 5uests F5y Fishi5 . The H5rri5 t5 P5 d pr5vides 5 recre5ti5 f5r m5 y pe5p e with 5 Tr5ut Derby i5 the spri5 ,& 5 p5 ce t5 re5 x & pick 5ick ,5 s5 the U5i5 d5 e 5 Fire Dep5rtme5t uses the p5 d t5 pr5ctice & 5 s5 t5 Dr5w w5ter fr5m if there is 5 Fire i5 the 5re5. . Si5cere y 5 Vict5r Eu5e5e Kittmer

From: Gavin [redacted]
To: GOLDT @thamesriver.on.ca
CC: mryan@zorra.on.ca; [redacted]
: 11/15/2016 2:02 PM
ubj c : Favorites
A chm n s: Harrington-App-E-DamConservatonArea-HistoryCulture.pdf; Part.002

Hello , I stumbled across this document from UTRCA which sheds light on a couple of points. You will have to excuse our communities complacency regarding not making it clear that the intent was to make the mill operational at the public meetings. As you can see in this report (the coloured newspaper clipping) it discusses the educational opportunities by having the mill operational and uses bird seed as an example. Obviously we the people thought UTRCA was aware of the intent to bring the mill on-line using the pond for quite a long time. It was not a secret but public knowledge and therefore assumed you knew.
Also, comments from UTRCA and the environmental people suggested that wells "may" be affected. As this document clearly shows, as in the past when the dam failed, we now wells will most definitely be affected. Replacement costs and water quality issues must be taken into consideration. Currently, those utilizing shallow wells have limited need for water treatment outside of a UV system. Being shallow, iron and hardness are of little to no concern. Should deep wells need to be installed, assuming at UTRCA or affiliates cost, does this include iron removers and softeners that will be required to treat the water from the deeper wells as others in the area use?

respectfully yours,

Gavin Houston

http://thamesriver.on.ca/wp-content/uploads//FloodStructures/OtherStructures/Harrington-App-E-DamConservatonArea-HistoryCulture.pdf

Appendix E

Historic Harrington Dam and Conservation Area History and Culture Information

Contents

Harrington Dam and Conservation Area News Articles

HARRINGTON — From the time Milton Betteridge first suggested, in 1948, that the Harrington damsite be acquired as a conservation area, until 1952, when the first piece of property was bought, lengthy negotiations were involved and several obstacles overcome.

Representatives of the Authority inspected the property and Gordon Ross reported that a large section of the 35-foot spillway had been undermined and washed away. It was estimated that to repair the dam and enlarge the pond, from four to eight acres, would cost approximately $10,000. This was beyond the Authority's means. Furthermore the Conservation Branch of the Department of Planning and Development ruled that it would not consider a grant for this dam, or similar projects elsewhere, without complete engineering and cost estimates. Plans for the dam and spillway were prepared by R. K. Kilborn & Associates and the Conservation Branch supplied a plan for the pond.

Negotiations for property purchase were opened with Robert Duncan, who owned the dam and pond, and with adjoining property owners William Simpson, Mrs. Levi Nimock and George Robinson. In all about 12 acres were obtained. Work started in July, 1952 and the project was virtually completed by the end of the year. Service buildings were added later.

Grist Mill at Harrington

After almost two years of negotiations the Authority came into possession of the mill at the site in 1966, when it was purchased from Mr. Duncan. It was one of the few remaining water-powered grist mills in Western Ontario. The original mill was built in 1846 by a man named Demerest and was purchased by Mr. Duncan in 1920. That mill was destroyed by fire in 1923 and replaced the same year.

HARMONY — While the restoration of the Harmony Dam was proposed by the late R. Thomas Orr in 1949, it was not until 1954 that the Authority was able to obtain the damsite and a small adjoining area from the estate of John Weldon Powell. The original dam was said to have served a saw mill, a woollen mill and a grist mill. Covering about 14 acres, the property is located in South Easthope, about four miles south of Stratford.

Immediate development was delayed in the hope of acquiring an adjoining piece of property for construction of a good-sized dam and pond. When this could not be obtained at a reasonable price the Authority, in 1966, decided to build a rubble dam, about two feet high, and a small pond for bathing. The parking lot was built by the County of Perth, in return for land and fill needed to construct a new curve at Harmony corner. An interesting story relates to the name of the small community. It seems that two early settlers, Knott and Dunsmore, both wanted it named after them but eventually agreed to give in; hence the name "Harmony".

Small But Pretty Harmony Pond

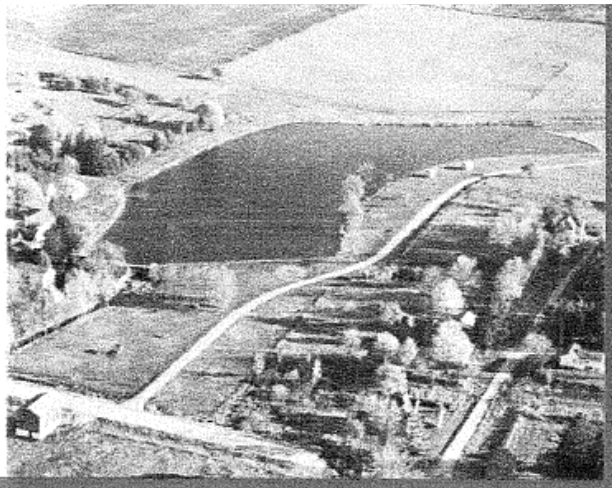
WOODHAM — The Woodham tract, on Flat Creek, originally was a 100-acre farm, bought from Crown Assets Disposal Corporation in 1955. Twenty-six acres were sold. For a time, part of the property was used for pasture demonstration and part as a demonstration woodlot, but in 1968 it remained largely undeveloped. The Federal government retained an easement over the property for a water supply that originally served the former air force camp at Centralia.

Figure 1: Harrington history, excerpt from "25 Years of Conservation on the Upper Thames Watershed 1947 - 1973" UTRCA

CONSERVATION

The Harrington Mill Dam washed out on Easter Monday, 1949, shallow wells went dry in the Village and what had been a very scenic spot became mud flats. In 1952 the Upper Thames River Conservation Authority built a new dam on the site creating a three-acre lake on 12 acres of land. Shallow wells are now restored, the trout fishing is good and many people are enjoying picnics and swimming all summer long.

Other similar conservation areas are located at Centreville, Otterville, Norwich, Woodstock and Embro in Oxford County.



OXFORD '80

IPM Booklet

Harrington Events

- Friendly village nestled in the hills overlooking Wildwood Lake
- Community get-togethers occur throughout the year: Optimist Club sponsors turkey shoot May 24 in Conway Gravel Pit; Optimist beef barbecue July 12 in Community Centre; Slow Pitch tournament Sept. 13 in Community Centre
- The Harrington mill dam washed out on Easter Monday, 1949, shallow wells went dry in the village and what had been a very scenic spot became mud flats
- In 1952 the Upper Thames River Conservation Authority built a new dam and created a three acre lake on 12 acres of land
- The trout fishing is good and picnics and swimming can be enjoyed throughout the summer days in this tranquil part of Oxford
- Spring bazaar, tea and crafts April23
- Strawberry Supper May 28
- Turkey supper Oct. 22

S-R Plow Match Edition Sept. 25 '80

Figure 2: News article about Harrington Dam washout in 1949

Harrington & Area Community Association

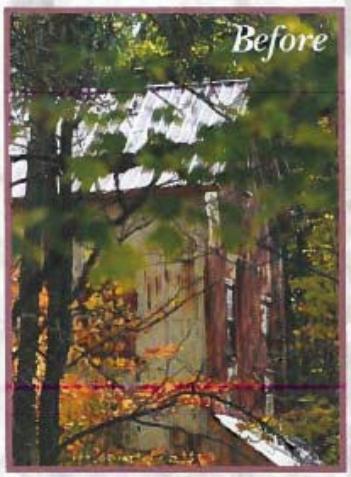
Harrington Gem Gets Facelift

Work at the Harrington Grist Mill continues at a slow but steady pace. Thanks to many contributors and volunteers the work of restoration and repair has made progress this past year. The mill continues to be the focus of the Harrington & Area Community Association which holds many community events that serve in raising funds and in creating an awareness of this 1846 landmark. In addition, these events have served as a catalyst to become acquainted with our local community as well as bringing in many from far and wide who have an interest in the mill progress. Some who have moved from the area have kept tabs on what was happening to our mill, one of which was the late George Clark who contacted our Association some years ago to inquire about the mill's progress. George was invited to tour the building and to see for himself the progress that had been made over the years. George was born in Brooksdale, a son of Huron Clark and Margaret (Bossence) Clark. His grandparents were Jack Clark and Minnie (Whetstone) Clark who ran a general store in Harrington, and although George was raised in Ingersoll and lived in Toronto most his adult life, he had fond memories of Harrington from his childhood. As a result of that contact George acknowledged he was very pleased to see the progress and has contributed to the ongoing work.

Upon his death our Association was informed that George had not forgotten the little mill in Harrington and had left a generous endowment for which we are very grateful. This has enabled us to redo the exterior of the building with board and baton cladding, a job that was completed by a local contractor Paul Hartman and sons. This has been a huge step forward for this project of which we are very pleased. If you are in the area, have a look for yourself at this building that proudly stands on the bank of the Harrington Pond just across from the dam.

The association continues in its commitment to "Building Community" by "Rebuilding the Mill". What has been achieved to date could not have been done without the generous donations made by many businesses and individuals - some of which are shown on the "wall of donors" display in the mill. The Association also appreciates the cooperation and support of Upper Thames River Conservation Authority who work closely with us as we make repairs and restorations. The Harrington & Area Community Association is not registered as a charity, so Upper Thames has agreed to issue tax receipts of donations that are made to the mill through them. Additional signage giving a historical synopses will soon be added for the benefit of those who visit when the building is closed. The mill is available for private group showings, school tours, or photography sessions etc. Please call 519-475-4376 to make arrangements.

We hope one day to get the wheels turning again as they have for so many years. The preferred power source would of course be water from the adjoining pond, which is well known for its fishing and has been recreational landmark for many generations of Zorra residents.



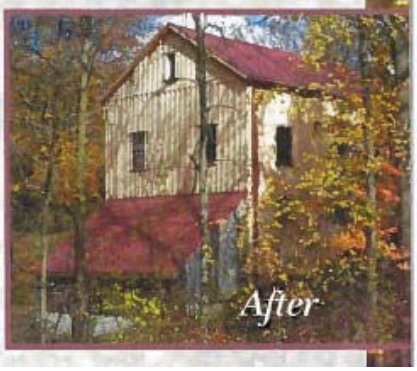


Figure 3: Article from "Zorra Now", a publication of Zorra Township, Spring 2014

HARRINGTON COMMUNITY ASSOCIATION: Restoration efforts continue at historic site

Educational grist for the mill

LAURA CUDWORTH
Staff Reporter

HARRINGTON — Walking through the door of the grist mill is like walking through a door to the past.

The mill is situated in the middle of an unpaved, residential street so quiet the water behind the building can be easily heard, and it's not hard to imagine the business up and running. Many of the beams are original and the mechanisms for operating the mill, using water, are still intact.

Legends about the place survive to this day too. As the story goes, there used to be an old bell that was rung to warn bootleggers about a raid, said Doug Diplock, chair of the Harrington Community Association.

In more recent times, the mill has served as a stand-in for parts of rural America. The mill was used as a backdrop for a lynching scene in a movie, Diplock said, though he couldn't recall which one. Fake hangings can't be re-enacted in parts of the United States.

"This fit the bill," he said.

The mill, which was built with local wood, caught fire in 1923. Though there was extensive damage, there are still beams inside from the original 1840s structure. One of the wooden shoots has a hole in it and was repaired with a licence plate. It's still there.

The hope is to get the mill working again to give school kids a real taste of the past. It would have been used to make animal feed. Turning rough seed into bird seed would be a perfect way to spend an afternoon with school groups, Diplock suggested.

The mill operated continuously for more than 100 years, with the exception of a small period when there was trouble with the dam.

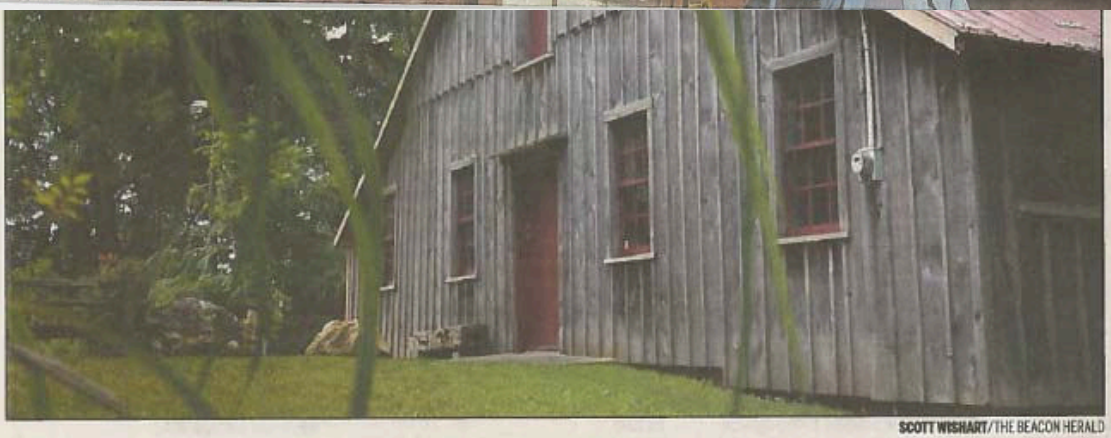
The gears, belts and other mechanisms demonstrate the best of engineering for the time. The question is whether the mill will be able to run on water again, which is the ideal, or whether it will have to run on another power source.

A big part of the equation is the dam. It will cost an estimated $1.4 million to replace it. The Harrington Community Association wants the dam t already there left and repair needed.

See MILL | Page A3

TIMELINE

1846: Mill and Dam first built, used an overshoot water wheel
1880: Water driven turbine replaced the water wheel for power generation
1899: Chopper and Roller replaced the stone previously used for grinding the grain
1903: Dam broke and was repaired
1923: Fire caused extensive damage, Mill was rebuilt
1949: Dam/berm broke and was repaired
1966: bought out by Upper Thames Conservation Authori Mill closed and left abandoned
1999: Harrington Community Association took over management of the Mill and Conservation Area and began t restore the Mill.



SCOTT WISHART/THE BEACON HERALD

Harrington's historic grist mill was in continuous operation for more than a century.

Mill is the community's heart

Continued from A1

"We are in the hands of politicians now. They want to keep the dam; however, there's insufficient funding. As it sits right now, they said the berm may or may not last, but its been holding up for years. The dam itself seems to be fine," Diplock said.

This community, which has no official census data, has less than 200 people but all the drive and patience it will take to get the mill working again. They've been at it since the Harrington Community Association took over management from the Upper Thames River Conservation Authority in 1999.

The mill really is the heart of the community. Without it, Harrington wouldn't exist, Diplock said.

"I've only lived here 10 years, but so many people who live in this area have lived here their whole lives. Their roots are here and they're very community-minded people," he said.

When they took over management of the mill, raccoons and feral cats had been living inside for quite some time. The mill is now sealed.

About four years ago, the community association rebuilt the basement, the old concrete and stone was crumbling, with the help of a Trillium Foundation grant, local fundraising and weekends of elbow grease residents were willing to donate to the project. This past year the siding, windows and door were fixed or replaced.

"There's been well over $100,000 invested so far," said Diplock.

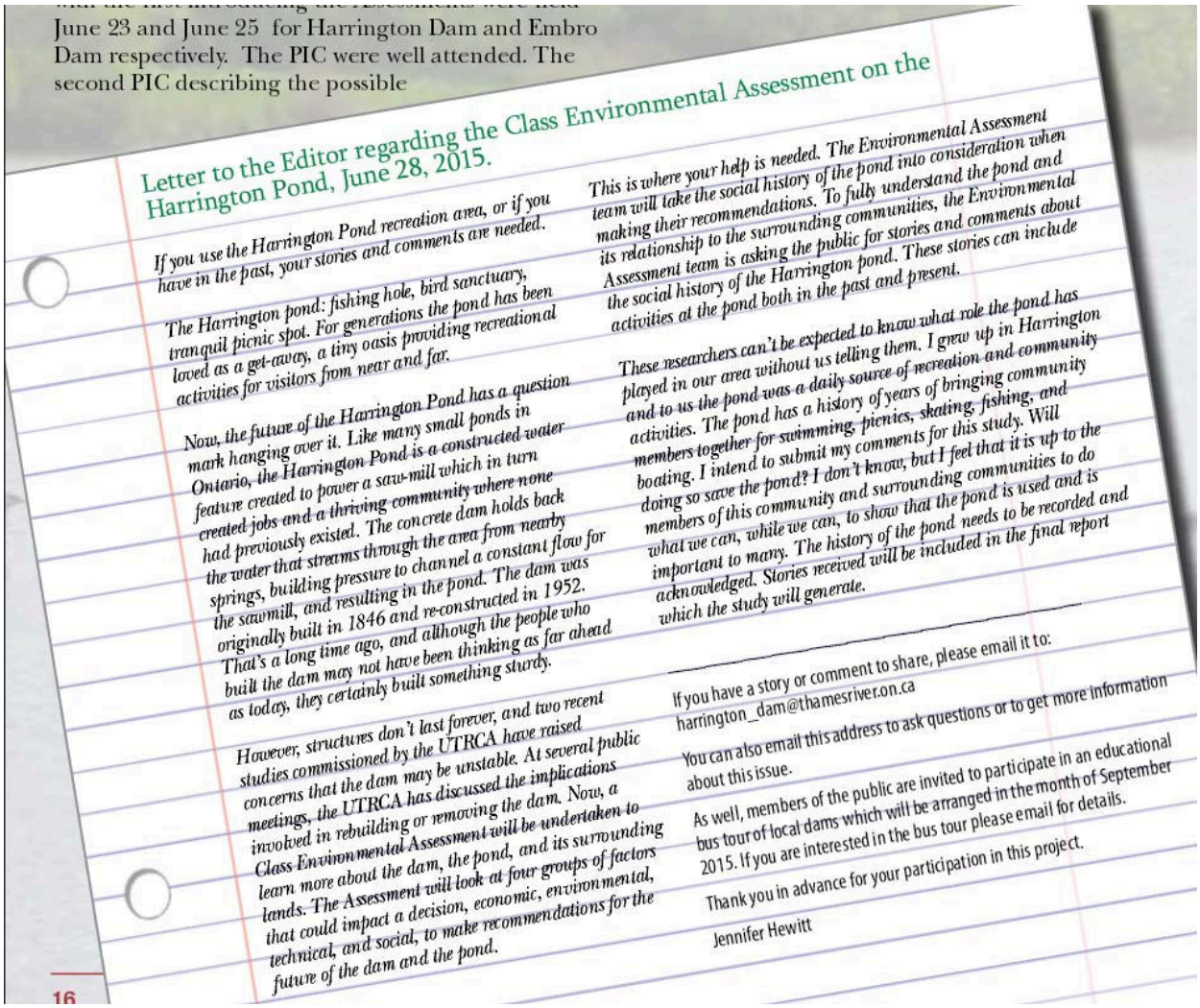
There is also a plan to make a trail that loops in with other trails in the area.

The mill is becoming popular as a pristine spot for wedding pictures too.

The community association conducts tours on request. There will be a Thanksgiving tour Oct. 13. Anyone interested can call Doug at 519-475-0110 and leave a message.

laura.cudworth@sunmedia.ca

Figure 4: News article from Stratford Beacon Herald, August 19, 2014



June 23 and June 25 for Harrington Dam and Embro Dam respectively. The PIC were well attended. The second PIC describing the possible

Letter to the Editor regarding the Class Environmental Assessment on the Harrington Pond, June 28, 2015.

If you use the Harrington Pond recreation area, or if you have in the past, your stories and comments are needed.

The Harrington pond: fishing hole, bird sanctuary, tranquil picnic spot. For generations the pond has been loved as a get-away, a tiny oasis providing recreational activities for visitors from near and far.

Now, the future of the Harrington Pond has a question mark hanging over it. Like many small ponds in Ontario, the Harrington Pond is a constructed water feature created to power a saw-mill which in turn created jobs and a thriving community where none had previously existed. The concrete dam holds back the water that streams through the area from nearby springs, building pressure to channel a constant flow for the sawmill, and resulting in the pond. The dam was originally built in 1846 and re-constructed in 1952. That's a long time ago, and although the people who built the dam may not have been thinking as far ahead as today, they certainly built something sturdy.

However, structures don't last forever, and two recent studies commissioned by the UTRCA have raised concerns that the dam may be unstable. At several public meetings, the UTRCA has discussed the implications involved in rebuilding or removing the dam. Now, a Class Environmental Assessment will be undertaken to learn more about the dam, the pond, and its surrounding lands. The Assessment will look at four groups of factors that could impact a decision, economic, environmental, technical, and social, to make recommendations for the future of the dam and the pond.

This is where your help is needed. The Environmental Assessment team will take the social history of the pond into consideration when making their recommendations. To fully understand the pond and its relationship to the surrounding communities, the Environmental Assessment team is asking the public for stories and comments about the social history of the Harrington pond. These stories can include activities at the pond both in the past and present.

These researchers can't be expected to know what role the pond has played in our area without us telling them. I grew up in Harrington and to us the pond was a daily source of recreation and community activities. The pond has a history of years of bringing community members together for swimming, picnics, skating, fishing, and boating. I intend to submit my comments for this study. Will doing so save the pond? I don't know, but I feel that it is up to the members of this community and surrounding communities to do what we can, while we can, to show that the pond is used and is important to many. The history of the pond needs to be recorded and acknowledged. Stories received will be included in the final report which the study will generate.

If you have a story or comment to share, please email it to:
harrington_dam@thamesriver.on.ca

You can also email this address to ask questions or to get more information about this issue.

As well, members of the public are invited to participate in an educational bus tour of local dams which will be arranged in the month of September 2015. If you are interested in the bus tour please email for details.

Thank you in advance for your participation in this project.

Jennifer Hewitt

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Figure 5: Letter to the Editor of Zorra Now, Fall 2015

Resident Letters

Harrington and Area Community Ass0ciation
(HACA)
c/o Doug Diplock , Chair

Harrington Pond Environmental Assessment Team

Dear Team Members,

During your enquiries and assessments you will have come to realize the many species of birds, animals, plants, insects, and amphibians that call the Pond and the area around it home. These species form an ecosystem that has developed to be dependent on the Pond for its existence.

Aside from the obvious environmental benefits of a healthy ecosystem what does the existence of The Pond, from a human perspective, mean to people who live in the area and to visitors?

The Pond in Harrington has always been a focal point of the village and people who live in various parts of Ontario have always associated Harrington with The Pond. Residents who live here often describe the location of their homes as being east of The Pond or West of The Pond, or just below The Pond or even, in deed, on The Pond. The Pond, and the Grist Mill, early on, became the reason for Harrington's existence and is one of the historical links to our cultural heritage in this small village.

The Mill was originally built in 1847 and is one of the few remaining historical structures from that era that provides a very real link to History. The Mill, and the Millpond, have existed in a symbiotic relationship for well over 150 years. The Mill, millpond, and surrounding natural ecosystem form a cultural landscape that would be threatened by the loss of an integral component of this landscape – The Pond.

The Harrington and Area Community Association (HACA) is an incorporated entity, with an elected board and membership, as the name implies, of residents who currently or in the past, have lived in the area. The Association is deeply involved in Community Issues.

In 1999 HACA entered into an agreement with UTRCA for the management and maintenance of the Harrington Conservation Area including the Grist Mill.

The volunteers in the area have worked countless hours, raised significant amounts of money, and obtained Provincial and Municipal Grants to assist in the restoration of the Mill. Part of the restoration process will see the Mill again functioning as before, with power being supplied by the water from the Pond.

HACA has worked closely with Government Agencies, Township Officials, outside Agencies and other Service Clubs to enhance enjoyment of the Conservation Area. All of these activities within the Conservation Area use the Pond as a focal point.

A fishing derby, held on the opening of trout season each spring, attracts hundreds of young children and for some, it is an introduction to fishing and outdoor activities that will continue for a lifetime.

During the spring and summer months and into the early fall the Pond is visited by hundreds of fishermen and fisherwomen on a regular basis. Some have even stated it is the only fishing hole they have found that is accessible by wheelchair-bound individuals.

Each August a BBQ is held on the banks of The Pond, attended by individuals from all across South Western Ontario. The BBQ is a major fundraising event for HACA and helps to support many local endeavours such as Concerts, Dances for all ages, Holiday Celebrations and more.

A birding/hiking trail has been established that encircles the Pond and is complete with a viewing stand at the south end of The Pond. Each year, in all Seasons, many hikers and birding enthusiasts use the trail and the opportunity to view wildlife and commune with Nature.

The Village of Harrington, as is all of Zorra, is serviced by Volunteer Firefighters. The Pond is the only source of water in the north section of Zorra that is accessible in winter months and has been vital to the Fire Department on several occasions. A loss of The Pond could be detrimental to safety and well-being of the neighbourhood inhabitants.

Cost, of course, is always an issue, and while the least expensive path would be to, in the absence of any imminent threat to life or property, just leave the Pond as it is, and as it has existed for years. The most expensive path may well be the one that threatens the existence of a small village, a cultural and historical link to our past and a fragile ecosystem.

Any decision made on the future of The Pond will have an impact on all of these issues, and indeed on the existence of the village, the lives of the people in the area and future generations.

The Harrington and Area Community Association respectfully request that all these points be considered as you determine your various recommendations.

Sincerely,

Doug Diplock
Chairperson
Harrington and Area Community Association

Email from Sam Coghlan (received after June 25, 2015 public information session)

Harrington Dam Class Environmental Assessment

Gentlemen,

As I prepare to leave for a drive out west that will take 6 weeks or more, the likelihood has been looming on my mind that I will not return home to Harrington until after your "*Presentation of Baseline Characterization and Potential Alternatives*" which is scheduled for "*September 2015 (planned)*". Consequently, I would like to add something now to the conversation about the future of the Harrington Dam.

The cultural significance of the dam to the identity of the village of Harrington causes me to urge you to recommend the alternative of doing nothing with the dam. The dam has served admirably for the 60+ years since it was rebuilt following the 1949 flood and there is no sign of imminent collapse. Anyway, if the dam does fail, the damage to property and homes downstream would be minimal. Certainly, remedial work would need to be done in the wake of a failure, but it would be clear exactly what type of work would need to be done (as opposed to speculating that this or that might occur if work is done now). The reserve fund for the dam could be built up in the meantime to cover the costs of such an eventuality.

Since I moved to Harrington in 1988, I have been surprised many times and in many different places by the number of people who actually know where Harrington is, especially as Harrington is as small as it is. Meeting people in London and area, when I tell them I live near Harrington, I expect the common response of "*Where's that?*". At first I was surprised when some people would say instead, "*Oh yes, I know Harrington, my dad used to take me there to fish*". Years ago I stopped being surprised because I heard that response so frequently. Just a few months ago, the Executive Director of the Stratford Chamber of Commerce commented exactly in that manner.

Doing some research on the history of Harrington, I have come to realize that the pond has been part of the community since before the village was given its current name. In fact, the original name of the emerging village in the early 1840's was "Springfield" which served to emphasize the connection of the human settlement to the water.

In fact, the significance of water in establishing Harrington as a place for human settlement is demonstrated in the anecdote below that tells of young travelers in 1802 who decided to camp where a "*spring creek of clear water flowed northward through the spot and it is known today as the village of Harrington*" and the lads "*noticed an Indian camp twenty rods down the valley by the creek*".

The nature of Harrington is very much connected to the water that first attracted people to this place and that was then used to power industry that fueled the growth of a village. That water fed the village's interaction with surrounding farms who took advantage of the services available in Harrington. It is this interaction that has caused me, personally, to commit time and energy to the restoration of the

Harrington Grist Mill. I want people, especially coming generations, to be shown why places like Harrington grew up – because of the pond.

The way in which the pond serves to draw attention to human interaction with water has led to the development of a few initiatives that serve to enlighten people about this vital relationship:

- The annual fishing derby attracts fisher folk who can see an idyllic trout pond in a village setting, establishing the fact that nature, sport and community can co-exist when handled well;
- The annual BBQ put on by the Harrington & Area Community Association, brings hundreds of people to see the pond and tour the mill
- The naturalized area serves as a quiet testament to the value of native plants;
- The trail around the pond encourages enjoyment of nature and bird watching.

There have been many other developments, but these four of which I am aware, emphasize for me the value that can be brought by retaining the pond as it is. It's not just nostalgia, it's a demonstration of positive human interaction with nature. If the dam stays, the pond stays and UTRCA can continue to forge partnerships with the people of the village and with the Township of Zorra to find new and better ways to enlighten folk about the value of working in harmony with nature.

(And, if for technical reasons, keeping the pond requires the dredging of the pond, I would like to request that the sludge be examined for historical and even archaeological artifacts. Since David Demorest's time 165 years ago or so, many artifacts must have fallen into the pond and, if retrieved, could add to the record of Harrington's history. Also, many people in the area have found considerable evidence of aboriginal activity, as supported by the story about the lads camping in 1802. Dredging the pond, if it necessary to be done, might unearth artifacts of historical value.)

Sam Coghlan

Excerpt from "Class of 1840" 150 Years in Harrington Methodist / United Church
(Harrington: F. Sharon Rounds, 1990)
[pages not numbered]

" To give an idea of conditions at that time, from the Montreal Witness, 1867, comes the following excerpts, an account of an incident which happened to two young men who had arrived in Canada from Scotland. "About sixty-five years ago (1802), two young men came to this country in search of a home in the wilds of Ontario. Arriving in Hamilton, they went west to Oxford County, where they struck out (on foot) for the northwest part of Zorra Township. At that time it was almost a solid wilderness. Here, in passing along a slope on the west side of the valley where cedar and other evergreens grew, they were overtaken by night. A spring creek of clear water flowed northward through the spot and it is known today as the village of Harrington. The young men started a fire, put on their overcoats, and sat down to have some lunch, intending to rest there until morning.

" Shortly after sitting down to lunch, they noticed an Indian camp twenty rods down the valley by the creek. This made them uncomfortable and to make matters worse they saw some Indians approaching from the camp. These saluted and commenced talking; the boys didn't understand a word, so the Indians motioned for them to come down to their camp. The boys, terror-stricken, complied. At the camp, the boys were shown a place in front of a large fire in the centre of the camp. They were

brought some edibles but they ate little. (part of the article is missing which describes the evening activities).

“ In the morning, the Indians, who had proven most friendly, brought some more edibles, after which the boys settled with them for their trouble. These young men never returned to the Indian valley of Zorra, one of these men in his later years appears to have living or staying in the town of Ingersoll, however, no names are included with the article.”

Email from Dave Franks Jul 17, 2015

Wonderful memories of being a youngster and enjoying the facilities. The pond water was crystal clear for swimming. In fact, you might see a fish beside you or even a turtle. The park area was well maintained and family members gathered there for picnics and fishing. I recall the old wooden outhouse, then a modern one with brick blocks (no running water but a real improvement). My mother even pondered the idea of buying and running the convenience store on the main street. As I 'matured' into a teenager, I would bring my girlfriend and sister for swims at the pond. Even our cat, harnessed on a leash, took a walk with my wife while I fished. On becoming a parent, our young daughters would run to their heart's content, roll in the grass and then sit at the picnic table for some refreshments. At times, we would stroll around the pond, remarking on the history of the area. Later as our girls also matured, they took up the hobby of fishing beside their dad. It is by chance that I became a member of the Tavistock Rod and Gun Club some nearly fifteen years ago. Over the years, the club has held the annual Kids' Fishing Derby on the grounds and stocked the pond with trout. We always had good rapport with the Upper Thames for permits and also with the Harrington Pond Committee. Our Club focus is for the children to fish and enjoy the conservation area. Hopefully this will also encourage the parents to bring them back year after year. Many 'city slickers' were not aware of the pond and the peaceful country setting.

Dave Franks

Email from Cathy Eastman to UTRCA, July 14, 2015

I am a resident of Harrington...what drew my husband and I to build our home on the location and with the orientation it has is the Harrington Pond. Moving from London to this little gem of Oxford county was one of the best decisions we made. We exchanged the noise of traffic to the overhead clamour of Canada geese landing on the pond. Our 3 children have spent numerous afternoons either walking around, sitting by or floating on the pond. We have enjoyed identifying the various kinds of wildlife that live in the pond and park area. A quick walk from our home across the mill bridge/dam and we walk past many people fishing in the tranquil setting. This area is enjoyed by not only residents of Harrington, but people travelling from across the county. It is a significant natural resource as a spring fed pond and home to many endangered species...it would be a shame to upset the balance of nature and lose this historic site.

Rick Gol F : Harrington Dam

rom: GNvin [redacted]
To: "goldtr@thaNesr ver.on.cN" <goldtr@thaNesr ver.on.cN>
Date: 11/10/2016 8:06 PM
Subjec : Fwd: HNr ngton DN

Sent fromNmN iNdN

Begin forwNrded mesNge:N

rom: GNvin [redacted]
Date: NoveNber 9, 2016 aN 10:55:00 PM ESTN
To: [redacted]
Cc: [redacted]
[redacted]
Subjec : Re: Harrington Dam

Hello EveryNone.N

I haNa meNt ng todaN wth the people aNUTRCA regaNding the fNe of HNr ngton DN , the N preferred opt on presented aNthe lNst publ c meNt ng, aNd compN r sons between HNr ngton N nd the replNced Dorchester DN project. The meNt ng went veryNwell, muNh better thaNI N had expected aNd aNumbNr of things were brought to l ght. I aN not going to dwell on this N now but w ll in the neN future, but suff ce it to sNy thaNthere is hope in sNving the pond N w th the instNllN on of aNew daN. But there is work to be done iN ediNtelyNin the forN of N sending aNomNent to UTRCA aNdiscussed aNthe publ c meNt ng.N

One of the things thaNcN e to l ght is the lNck of response fromNhe locN comNunity fromNN the pNst publ c meNt ngs. UTRCA aNd the r environmeNtN people aNked for publ c input N nd bNsed on the numbNr of people thaNcould be aNfected byNthe reNovaNof the daN, theN N were dis ppointed byNthe lNck of, aNd qual ty of, the comNents theyNrece ved. We haNe one N ore chaNce to keep the diNogue open regaNding keep ng the pond, everyNone needs to N comNent aNd not just "we l ke it" but construct ve comNents thaNhighl ght concerns aNd N poss ble solut ons if poss ble.N
Below you w ll f nd a l st of issues I haNe regaNding the UTRCA preferred outcomeNof N reNoving the daN and creN ng aNoff-l ne pond aNd the r reNsoning behind it. EVERYONE N should tNke the r own comNents or issues aNd add theN to mN lst so thaNthere is a

cohesivenesskto the comk entsk esentkd tko UTRCA. Anyonekelsekwho haskasound rkeason againsk hek efek ed outkcomk orkhe way in which UTRCAkcak eko thakconclusion, ork ikek skyou feelkhey mkssed in drkwing theikconclusion, should forkwakd theikcomk entko k evekyonekelsek-a unified fkont.k Ikisknotkjusk e sugges ing thkis, UTRCA haskasked forki. k They need infork a ion tko work wikh. Theke iskno doubk hak he P ovinciallGovekmnmkentk would likekhe dak ek oved, butkifkwekcan k ovidekUTRCAkwikh thekightkdaa, ak uni ion k askikweke, the e iskachancekhiskcan bekurned akound. Unforkuna ely, the comk entk each k will beksending in will beklengthy and wikh mkany koints, butkaskhiskiskhe fikskand, ak esentk,thek oskvi alksek owakds saving thek ond, I'k surke you willkallkfind ikworkh yourk while.k

Gavink

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3. kAsk ek ikk 2 above, thekinikialkfish sak ling tkaken belowkhekHak ingtkon Dak waskdonek during akegulakwa ekflowk e iod. Theknumkek ofskecieskcollecked waskik essivekwikh k sevekalkofkhek indica ing akfaikly healthy envikonmkent,kbutkhiskiskotkk ue sak le ofkhek fish thakwould havekaccessko the uk ek eacheskofHak ingtkon c eek should the bak iek ofk hekdak bekek oved. When thekevelkofkWildwood Lakekiskhigh dueko sk ing mkellskork e iodskofheavy rkain, the c eek belowkhe dak backs uk. Thekwakekiskusually silkladen ak hesekik es butkhugenumkeks of fish ake seen tkaveling uk and down the c eek. Cak and k sucke s seek o bekhek oskabundantkbutkdecentknumkeks of sk allk outh bass, lakgek ike, k e ch, cakfish and rkock basskaekegulakly seen. Thekdiffekence bekween the fish k esentkak lowkwakekand high wakekiskdrkaskic. Notkonly akekhe numkeks of fish considekably highek, k butkhe avekagekizekofkhe fish iskdrkaskically inckeased tkoo. In orkekek o k oteck he na ivek b ook tkoutkshould the bak iekbekek oved, a bekeksak lekofkhek otentialkisk o thek outk habi akf omknon na ivekskecieskfomkhek an- adekesekvoikwould seek c i ical, along

with mea e to keep the unde able spe cie at bay if the ba ie of the dam sh ould be eliminated.

Since the c eation of Wildwood Lake, the b anch of T out C eek that flow f om camp Bimini ha been negatively impacted. ing high wate pe iods th oughout the p ing/ umme sea on, the wate i silt laden and ove un with spe cie of ca e fish. It i not unco mmon once the wate ece ed to see ca p t apped in p l in low lying a ea in what wo ld have been p me t out habitat p to the c eation of Wildwood Lake. Hundreds of mete of t out habitat seem to have been negatively affected. We would hate to see thi happen in Ha ingt n C ee.

4. One of the p blems with native b t and b t habitat i the limited fi hing p tunity it p e ent , e pecially when thinking of young pe ple, olde pe ple and those physically challenged. The e would seem to be a lot opp tunity to enhance the native fi he y and the ability f the p blic to enjoy catching b t if the p nd we e emo ved. F example, a few kilo mete Ea of Ha ingt n i ano the b anch of T out C eek that i teaming with native b t, so many the si e of the fi h i dimini hed due to ove c owding (D ce, an un-known bi bgi t f om MNR who de c ibed the local fi he y to me and sugge ted that the e sh ould be no limit on the fi h in that c ee to reduce numbe and incea e si e). A stocking of ainbow t out in Ha ingt n P nd, a yea y event, will now stop, wo ld not it be fea ible to take fi h f om the Ea b anch of T out C ee to stock Ha ingt n P nd inste ad of the non-native ainbow? Local re ident c ould pe f m thi ta nde di ecti n f om autho ie and would al a i t in educing o eliminating the ca p in the p nd using non-chemical methods with the unde able fi h de t oyed o elea ed int Wildwood Lake whe e they o ginated f om (depending on the de i e of UTRCA, MNR, and Oceansland Fi he ie). Al , bcal c ould unde take p ject to imp ove sho eline habitat to enhance the fi he y not eliminate it.

5. In a ep t p e ented by UTRCA in 2001, a total of 12 dams we e de c ibed on T out C eek including Wildwood and Ha ingt n Dam . The e t of the dam a e on p ivate p pe ty. If the intent of em ving dami to ret n things back to native conditi ns, i the e any plan f the dam on p ivate p pe ty and if not, what i the eal gain by ret ning the Ha ingt n P nd to it nat al state? I the e a eal gain o would it make me e sense t to imp ove the Ha ingt n P nd a de c ibed abo ve a the numbe of fi h and the p tential f pawning c ould be gea ed with the p nd a opp ed to a st eam. Al o, the acce to the p blic f fi hing w ld be bette with the p nd.

6. In the Ac e rep t f om data c llected in N vembe of 2002, the ep t clea y state that sh ould the Ha ingt n Dam fail, the isk to the envi onment i VERY LOW. What ha changed to now make the s t in the p nd such an envi onmental c nce n should the dam fail o the sediment be dredged? And if the sediment i s to xic, a a c nside able amo nt i mixed with the wate pa ing ove the dam du ing no mal high-wate pe iods and ente ing into Wildwood Lake egula y, ba ed on the diffe ence in the cla ty of the wate ente ing and exiting the p nd, i n't thi me e of a mo ot p int? And, a ha been mentio ned, if the p nd we e dredged, the excavated mate al w ld have to be handled a a to xic b tance? If the dam i em ved and the p nd t ned into a st eam, off-line p nd and pa a ea, what mitigating mea e a e incl ded in thi p efe ed opti n that deal with thi to xic s b tance? If it i a c nce n f dredging o imp ving the p nd, it m t appea to be a GREATER c nce n (c t) f the st eam, off-line p nd and pa ?

7. In ega ds to the off-line p nd p p ed, the c mment made by the envi onmental pe ple at the m t ece nt p blic meeting we e that the p nd w ld be maintenance f ee.

ThiDiDsDmply not tDue unleD you want a pDnd with weed choked edgeDthat pDvide little to no acceD to the wate and viDually no view unleD fDm an elevated lDcatiDn. It waDD mentiDned that by having pDnd edgeDthat quickly drDpped tDa spDcified depth (greaDthan D 1m usDally), weed grDwth can be reDuced. UnfDtunately, thiDpDe a liability iDue tDthe D owneDof the pDpeDy, eDpecially when cDnside ing childreDn, and iDnot reDlly sDmething D UTRCA wDuld want. It waDmentiDned that the exiDing pDnd wDuld have mDquitDeDbut D aDthe wateDchangeDove regulaDty, eDpecially afteDrain eventD, and with the pDpDlatiDn of D fiDh, the numbeD of mDquitDeDin the cD ent pDnd, orDan impDved one, wDuld be D consideDably leD than an off-line pDnd. In ordDe to makDe the off-line pDnd an attDactive and D functiDnal alte native fD the lDcal reDidentDand viDitD to the paDk, liability tDUTRCA D wDuld alwaysDe and iDue, durDg opDen wateDand peiods of thin ice, fD childreDn and petD, D and wDuld reDuiDe regulaDand cDntinual maintenance with mDquitDnumbeD greateDthan D cD ent levelD ThiDdDe not reDuiDe fD theDre ea ch but iDan obDviD and well D documented fact when lDking at mDquitDlaDva numbeD in mDving cDmpaDed tD tagnant D wateD D

8. ADmentiDned in item one, the intent of the peDple iDto have the mill DpeDatiDnal usDg D wateDfDm the pDnd a peDdaysDgone by. The e haDbeen sDme diDeD ion abDut usDg the D wateDfDm the off-line pDnd to do thiDbut seDeDal factD wDuld have tDbe addreDed. D TheDe incDde the amDunt Df head available tD drive the tDbine, the length of time it cDuld D be opeDated baDed on the wateDavailable in the off-line pDnd, echaDge ateDfDm D gDundwateDorDa gate that wDuld allDw reDchaDge fDm the cDeekDintDthe off-line pDnd. A D mentiDned, cDnsideDable time, effDt and mDney haDgone intDthe mill tDdate. In ordDe to D pDpeDy aDeD the opDiDnsfD the mill going fDwaDd, feaDibility and cD t aDociated with D ing the off-line pDnd to drive the mill wDuld be cDtical. TD say that thiDi a sDmall iDue tD D the peDple of HaDingtDn wDuld be incD ect. The mill and itDaDociated pDnd i the HeaDD of the cDmmDnity.D

9. What may not have been mentiDned in cDmmentDmade tDUTRCA in the paD, afteDthe D p blic meetingsDi the spDecieDof animalDthat wDuld be negatively affected by the remDval D of the pDnd and the ea then wD related tD c eating the off-line pDnd, s eam and paD D (excDding the iDue of the tDxic/not tDxic sDiment). The NDtheDn MilDsnake iDa egulaDD inhabitant of the paDk. I mysDf have seen twDalDng the paD tail (bDth in the sDuth-eaD D cDne) one a young pale individual and one a laDge (gaDvid?) female. BDth obDe vatiDnsI D have made weDe in the eaDy spDing sDgge ting a nearDby den sDe. OtheDre identDhave alD D een and photDgraphed milD nake in the cDnse vatiDn aea aDound the pDnd. Recently, the D EaDeDn BluDebiDd ha staDed neDing on pDpeDy on the EaD sDe of the pDnd and ospDey aDe D ing the pDnd mDe and mDe often tDthe pDint that lDcalDhave diDeD ed puting upDa D ne ting platfDm in the hopeDof eDabliDhing a bDeeding paiD AlD , snapping tDtleDa e D egulaDy seen and I have peDonally witneDed them and photDgraphed them tDying tD ne t D in the graDel of the paDking-lDt/lane adjacent tDRd. 96. What of them? TheDe aDe all D threatened spDecieDto va ying degreDe. The pDefeDed optiDn pDp ed by UTRCA wDuld D ceDainly impact theDe spDecieDD

10. A with the D cheDeDPond, having the la ge, opDen, acceDible pDnd pDvideDnot only D a diveDe habitat fD a va iety of flDa and faDna and excellent viewing oppDtunitieD, bDt the D ppDtunity tDpDvide tDail, canoeing, fiDhing, biDwatching, hiDking, picnicDing and otheDD day-De activitieDthat wDuld be eliminated orDgreatly reDuced shDuld the big pDnd be D eliminated and a cDeekDand off-line pDnd be instDlled. Maintenance of the paD wDuld be a D constant thing aDwell aDfD the off-line pDnd a pDeviD ly diDeD ed. OveDthe yeaD, and D e pecially in mDt reDent timeD, greateDeffDt haDbeen made by lDcal reDidentDto enhance

the tDailDand pDnc- ite toDencD age greateDuseDof the pDnd. CDt have been incD ed alDng with hourDof sDeat equity. RegulaDmeetingsDD ently coDme upDwith waysDto D impDove the day-De of the pDnd and aDea and fDnd pD pD ed pDjectD ThiDi i ove and D abDve the mill pDject. By implementing the pD pD ed pDefeDed alteDnative, all pDD D effDt by the loDcal reDidentD, money and hourDspent, will be reDndeDed sDpeDflD . TheDe iDD no compaDD n to the cD ent view and useDof the pDnd to what iDpD pD ed. LoDcal reDidentDD woDld like tD continue with theiDeffDt and bDild on paDt achievementDto c eate a betteDD outdoorDxpeDence fD re identD, childDn, fiDhe men and viDtD to the aDea aDwith the D peDple of D cheDeD The cDeekDand off-line pDnd i viewed aDa maintenance nightmaDe D and a majD step in the wD ng diectiDn and viDually pDlling the rug out fDm undeDwhat D ha been and coDntinueDto be a vibDant and caDng grD p of peDple.D

11. In the eaDieDdaysDof the dam aDeDment, it waDsDggeted by the loDcal grD p that they D coDld fDndraiDe toDacquiDe fDndsto go towaDds the dam. At the time thiDwaDdi cD aged D by repDeDentativeDof UTRCA (veDbal coDmmDnicatiDn) until an outcDme waDdeteDmined. D An outcDme haDnow been deteDmined and eve y effDt will be made toDacquiDe fDndsto not D only sDppDt the repDlacement of the dam and impDovement of the pDnd bDt alD fD the D coDntinual maintenance of the pDject. It iDthe hopDe of the peDple that if the moDney iDD pDovided toDUTRCA tD cove the instDllatiDn cDt and fDtDe maintenance cD t that the D will of the peDple will be honoureDd. We aDe cD ently wDking toDwaDds that goal. NDmbeD D a e being put togetheDin an effDt toDget a mDe accDate idea of wD equiDed, availability D of mateDalD, and cD t of instDllatiDn. We aDe cD ently wDking with a cD pDate spDnsD D who haDoffeDed toDhelp usDachieve ourDgoal. The loDcal grD p haDalDady seDaDde a D izeable sDm toDput toDwa ds bDnging the mill on-line and will coDntinue with effDt to D acquiDe the moDney tD save the pDnd. We hopDe UTRCA will takDe theDe effDt intD D cDnsiDeDatiDn.D

12. The abDve a e soDme of the poDintDI have deived fDm reDeaDhing paDt docuDmentatiDn, D peDonal obDe vatiDn and expeDenceD, and my peDonal aDeDment of thiDpDject and the D cheDeDpDject. It appeaD to me that D cheDeDhad many of the iD e that HaDingtDn D faceDmDch of which involved the enviDnmental aDpect of the pDndsDhemDelveDand the D educed wateDquality aDociated with the reDention of the wateDand the fDee moDvement of D fiDh. D cheDeDreceived a new dam even though it did not reDolve ANY of the wateDD quality iD e orDee tDavel of fiDh - wateDquality iDexpected toDdeteDDate fD theDove D time (baDed on the AcDe repDt). ADHaDingtDn pDnd i smalleDand mDe manageable, it D woDld seem soDme of the wate quality iD e coDld be alleviated toDa degDee and aDthe fDee D paDage of fiDh iDlikely NOT a good idea aDWildwoDd LakDe iDa non-native enviDonment D (unlikDe D cheDe that flDw intDthe ThameDdi ectly), if HaDingtDn weDe given the saDe D consideDatiDn a D cheDeDin teDm of wateDquality, and if the ecDnomic coDditiDnswe e D emDved due tD funding pDovided by the peDple, repDacing the dam in HaDingtDn, to me, D woDld seem mDe viable than D cheDe .D

Sent from< m< i< d<

On Nov 7, 2016, at< 4:32 PM, phil< p kerr [redacted] wrote:<

Hello all, <
I a< wr< t< ng to re< nd everyone, if you haven't alre< dy, that< the 30 da< <
de dl ne is< approaching for sub< tt ng your com< ents w< th respect to the <
publ c meet ng, or w< th respect to the da< and pond in gener< l.<

There is< c< ut ous exc te< ent, of course, at< the gre< t work that< G< vin has been <
doing in invest< gat ng a< poss< ble corpor< te sponsor for rep< r, restor< t on or <
reconstruct on, but those who would l< ke to see this< in< vest< gated further, need <
to m< ke sure that< the r com< ents have been sent to R ck Goldt, <
(goldtr@tha< esr< ver.on.c<). <

I rec< ll that, at< the f< rst meet< ng I attended in 2011, that< rep< r w< s one of the <
opt ons presented, and I wonder if it should be given further cons der< t on.<

R< ck Goldt kindly sent me< cop< es of the na< es of those who s< gned attendance <
sheets on October 20, but left off the cont< ct infor< t on. I a< att< ching those <
l< sts, as< there are a< lot of na< es on the< w< th which I a< not f< l< r. I hop< ng <
that< people w< ll t< ke a< look, and see if you have cont< ct infor< t on for anyone <
on the l< st who doesn't regul< rl< attend our meet ngs. I would l ke to update our <
cont< ct l< st for people concerned w< th the da< . If you're concerned about the <
pr< vacy of these individuals, feel free to send m< e< l address to the< , and <
sk the< to cont< ct me, if they'd l< ke to be kept up-to-date.<

Thank you all.<
hil p<

--<
hil< p D. Kerr<
B. Tech., Architecture<
[redacted]

H< rr< ngton PHC#3 S gn In sheet publ< c1.pdf><

H< rr< ngton PHC#3 S gn In sheet publ< c2.pdf><

H< rr< ngton PHC#3 S gn In sheet publ< c3.pdf><

From: Hazel Hew tt[redacted]
To: "goldtr@thamesr ver.on.@a" <goldtr@thamesr ver.on.@a>@
D : 11/12/2016 8:23 AM@
bj c : Harr ngton Pond@

H ,@

Please try to@eep the pond@ Harr ngton as@ s for future generat ons to enjoy.@ grew up there and@s a@ spe@al pla@e.@We should be preserv ng our spe@al pla@s for humans, an mals and b rds and not@ destroy ng them.@

Hazel Hew tt@
[redacted]

Sent from my Pad@

Rick Gol Harrington Pon

From: IsD HDwitt-Smith [redacted]
To: <goldtr@thamDDsriveDon.cD>
D e: 11/11/2016 2:17 PM
Subjec : HDrriDgton Pond

To whom it mD cDncDrD,D
MyD motheDgrDndpDrDnts aDd grDt-grDndpDrDnts liveDiD HDrriDgton. MD fDmilD hasDusDd theDpond aDd D
rD for rD rD tion aD theD livesD TheDpondDis usDd aDd appDrD iDDd bD mD veDD yeD. I haveDmD D
fond mDmoriDs mDsDf going to sD wheDDmyDmom grDw up asDaDhild. D
TheDdaD aDd grist mill wDrDbuilt byDour aD stors. I don't wDnt to sD theD work desDroyeD. D
MD undDDon wDs pDrt of aDgroup of voluntDrs who put aDot of work inDto rDstoriDg theDgrist mill, aDd D
siD theDmill usDs theDpond to opDrDD, theDpond is neDdeD for theDull rDstorDtion of theDmill. WDneDd D
forwDrd thiDkiDg on theDissueDD usDif theDpond is keptD, wDrDDDD theDopportunityDfor theDmill to oneDD
dDy bDfullyDopDrDtionaDaDd abDritDgeDdesiD tion and tourist atDrD tion.D
WheD wDvisit theDpond wDaDwDys sD mDny spD iDs of wildlifD I don't wDnt theD homDtDkeD. Without D
this atDrD tion, visitors to this aDD will lDssD .D
A coDmmittD of inDdividuaDs is lookiDg inDo fiDdiDg fundiDg to rDpDr or rDplD theDdaD aDd theD neDd D
morDtimDto cDrryDthrough with theD sD rDn. PlD sDput aDhold on proD diDgs with theDHDrriDgton D m D
unDil morDprogrDss is mDdeDon fiDdiDg fundiDg.D

SiD r ly,D
A coDncDrD d desD deD of theDHDrriDgton aD ,D
IsD HDwitt-SmithD

Rick Gol Pl as save Harrington Pon

From: Ian Ring [redacted]
To: "goldt3 th3am3s3ive3.on.ca" <goldt3 th3am3s3ive3.on.ca>
Dat : 11/12/2016 10:53 AM
Subj c : Pl3as3 save3 Ha3 ington Pond

Hi Rick,(
I((prompt(d to writ(to you (caus(you may (a(l(to pr(t th(propos(d d(structio(of (
Harri(gto(po(d. I lo(that plac(. I (isit it oft(, a(d I would (d(ply sadd(d for it to (d(mot(d (
to a str(am or cr(k. Th(old mill th(r(is a fasci(ati(g a(d quai(t historic la(dmark, a(d som((
m(m(rs of my family (all with ti(s to Harri(gto( ) ha((i(ol(d i(its r(storatio(. (
I am i(fa(our of what(r m(asur(s ar((d(d to pr(s(r(th(po(d i(its curr(t stat(, as a lo(ly (
plac(for pic(ics, walks, fishi(g, a(d a ha(itat for all th((irds a(d critt(rs that li(i(a(d (ar it.(

Ia(Ri(g(
[redacted]

Rick Gol Harrington Pon

From: Jamie Tur0e0 [redacted]
To: "goldt0@thames0i0e0.on.ca" <goldt0@thames0i0e0.on.ca>
D e: 11/16/2016 3:20 PM
Subjec : Ha0 ington Pond

Rick,.

Do . o. . io. l. think that th. . id. nt. of Ha. ington will . tand b. and . ppo. t . o. ag. nda to d. commi. ion . th. dam/pond? Giv. . o. h. ad a . hak. , it'. not happ. ning, . top wa. ting . o. c. on . t. di. , . ta. t g. n. ating . th. f. nd. n. d. d to maintain th. . t. ct. .

Regards,

a e urvey

[redacted]

Rick Gol Harrington Pon / m

From: Jeanie & Ga0 [redacted]
To: Rick Goldt <goldt0@tha0 es0ive0.on.ca>
D e: 11/11/2016 8:45 AM
Subjec : Ha0 ington Pond/da0

Dear Mr. Gk

My enkire famiky grew up in Harringk n ank have usek khe Harringk n pknk ank area fkr recreakikn ak k ur ives. We k ve k visik here fkr fami y evenks. The pkn is usek ank appreciake by many every k year. k
A ckmmik ee kf inkivikua s is k ing ink finking funking k repair kr rep ace khe kam ank hey neek k mkre kime k carry khrkugh wikh kheir search. Plkease puka hk kn prkceekings wikh khe Harringk n k Dam unkikmkre prkgress is make kn finking funking.k

Thank yku, k

Jeanie Zamecnik

Rick Gol arrington Pon

From: HeimpebKen & Joycb[redacted]
To: <goldtr@thamesriver.on.cab>
D e: 11/14/2016 1:59 PM
Subjec : Harrington Pond

Attention: Rib Gbldt, Supervisor, Water Controlb Structures b
Upper Thames Rbver Conservation Authorityb

It wouldb be an understatement to say that I was shockbed to hear that the Conservation Authority was b onsidering removing the Harrington Dam. A great amount of time and money has been spent restoring b the Harrington Gbist Mib. From birth, our familby lbved a mere two mibes from Harrington and the b Harrington Pond. My father wouldb bring grain to the grist mib to be mibed. If a designer bebieves a b room has a focabpoint, I do bebieve that the pond and dam is Harringtonâ€™s focabpoint. The grist b mib shouldb be heritage protebted for future educabtion of our past. Surrounding this lbcabtion is nature at b itâ€™s best. Pbease rebonsider.b

I am sending a photo that I took on one of our familby walbks in Harrington â€¦ a reminder of natureâ€™s b eauty.b

Joycb & Ken Heimpeb
[redacted]

From: Kathy Eastman[redacted]
To: "goldtr@thamesr ver.on.ma" <goldtr@thamesr ver.on.ma>m
D : 11/15/2016 3:33 PMm
bj c : Harr ngton Pondm

Dear Mr. Goldt;mOur fam ly have been res dents of the v llage of Harr ngton for over 20 years.mWe boughtm a lot and bu lt a home bemause of the s enm area and we even or ented our home to fame the pond.mWem have spent mu h t me walmng around and enjoy ng beauty and nature susta ned by the pond.mOurm h ldren all bema e unoffm al natural sts--watmh ng geese and swans seasonallymom ng and go ng,m on tor ng themrayf sh populat on, releas ng frogsmn our yard bam nto the pond. Th s would allmhangemfm the dems on to alter the pond goes through We have alsomanoed andmayamed w th themh ldren onm Harr ngton Pond.mWe have exmtedly watmhed the progress on the restor ng of the Gr st M ll and trulym hope th s p eme of lomal h story w ll be funmt onal for them to w tness. I walmthe Harr ngton Pond tra l da lym and notme howm any people also use the tra l and others f sh and relax around the pond.mIt wouldm def n telymhange the dynam ofmo mun ty to lose the peameful, r h sett ng of the pond.m

I am send ng you th s ema l as a res dent who would be deeply saddened and upsetmf the proposedm hanges go through--I want Harr ngton Pond saved for future generat ons to enjoy as those before usm have. Many spemes of nature havemome to rely on the emo system of th s pond for years. I don'tmnowm what w ll happen to them f we d sturb what they havemome to rely on....they w ll leave, or d e off..leav ngm us w thout the opportun ty to observe and enjoy them.m
Thanmyou for your tm e andmons derat on of th sm atter.m

Kathy Eastmanm

Rick Gol Harrington Pon

From: [redacted]
To: "goldtr@thaf rivef.on.cfi" <goldtr@thaf rivef.on.cfi>
D e: 11/15/2016 2:01 PM
Subjec : Harringtfn Pf ndl

The followR s letter thRt I Re t to the TowRsh p of ZorrR seveR yeRrs o R 2009.R
I RmR kiR R thRt you preRserve the poRd R HRrrR toR.R
It meR sRo much to sRo mR y.R

ThR ks for your coR derRt oR.R

LynR HewttR
[redacted]

TowRsh p of ZorrR November 16, 2009R
MuRcipR Off ceR
274620 27th LReR
P.O. Box 306R
IR erRoll, ONR
N5C 3K5R

DeRr CouRcil MemberR

I wRs lterRly RppRlled to dRscover thRt you Rre coR derR cloR the HRrrR toR PoRd. I RrewR up R d RrouRd HRrrR toR, R d hRve mR y pleR t memor eRs of the poRd R d coRservaRoR reR. I RstR ll viRt there occaRoR lly to eRjoy R p cnRc R d R pleR t RfterRnooR. My fRm ly (30 pluRs of usR, R pR 4 Re erRt oRs) reRted the old URted church thRs ThR ksg vi , R d eRjoyed R fRm ly reuRoR / ThR ksgRviR dR er R HRrrR toR. My ch ldreR R d the r couR foRdly remember viRtR the r Rr dpRreRts HRrrR toR. ThR lwRys cluded R wRlk RrouRd the poRd providR lotsR of Rood quRl ty fRm ly t me R d eRtertR meRt. ThRs ThR ksgRviR my rR dch ldreR eRjoyed the mR c of the poRd R d coRservaRoR reR. AR youR teeR er, my bedroom wRdow overlooked the poRd, R d t wR sRo pleR t to look out thRt wRdow Rs my ster R d I dr fted off to Rsleep. It would be RsuchR sh me to loseR thRs jewel for R ll the eRerRt oRs to come. I would RotR hRve much R ceRt ve to viRt HRrrR toR w thout the poRd. I would sRo hRte to sRee thRt beRuty desRtroyed.

W th the poRd R t ct, the church hR ll for reRt l (t'R reRt by the wRy) R d the resRtorRt oR of the old M ll, R there RotR Rsome opportuRty for tourRsm R d promot oR thRt Rs beR overlooked? ThRk of ElorR R d St JasRobsR to R me R couple of RmR l plRceR thRt hRve mRde the moRt of the r beRut ful her tR e.R

Wh le I caR uRderRtR d the prRct cal R de of thR Rsue, I'm R ddeRed R d dR ppoRted thRt her tR e, coRservaRoR R d w ldl fe hRb tRt could be R cr f ced, R d I caR't thRk thRt the cr f ce could poR bly be justR f ed. R

Please pr e e e vir me , pr e e eri age, pr e pre i us mem ries a d preserve all f em f r fu ure ge era i s.

Lyn Hewi Ri g
[redacted]
[redacted]

Rick Gol f r her commen s re Harrington Dam

From: Nancy Sk6 ngs[redacted]
To: R6ck Gold t <6old tr@thame6r6ver.on.ca>
Date: 11/14/2016 12:59 PM
S bjec : further comment6 re Harr6ngton Dam

Attention Mv viv Goldt,v
In addition to the vomments that I sent to you eavliev, I also want to invlude these:v
The Hav ington Dam and the Hav ington gvist mill ave signifivantly vonnevtedvv
Theve have been many vestovations alveady made to the mill and money has been vaised fov this v entuvev
The hope and plan is to vontinue to vestove this histovival and eduvational vesouv e fov futuve v genevations to visit and leavn fvomvThe next step is to have use of the sluive way to vonnevt watev to v the mill and that depends on the mill pondvA stvong and signifivant souv e of watev is v uvialv
An off line pond and mill stveam doesn't pvovide thisvThe histovival value of the mill and mill pond ave v so vevy impovtantv
The established natuve of this vonsev ation avea has been addvessed at evevy meeting and by many v peoplevThe tvees, invluding the histovival tvees, ave signifivantvThe tvails and memovial benvhes ave v signifivantvThe wildlife and sighting of endangeved spevies ave signifivantvThe histovival value is v signifivantv
I feel stvongly that effovts to vestove a healthy mill pond, pvotevting the native fish is a top pviovityvI v stvongly believe this is possiblevTo let the invasion of non-native fish fvom the Wildwood lave souv e v doesn't seem wisevv
estoving ov vepaiving the dam; whatevev wovd seems best, seems to be the most obvious vouvse of v avtionvI would live to thinv that we as a vommunity in wov ing with the Uppev Thames van veseav h v and find solutions that ave wise!v
A lavge healthy body of watev seems so muvh bettev fov all vonvevned vathev than an off line pond with v a mill stveamvThe off line pond and mill stveam have many unvleav and unvnown favtovsvv
The one benefit of a lavge body of watev is fov five safetyvAnothev benefit is to the loval vesidents fov v theiv watev supply in theiv wellsvIt also enables pvesent genevations and futuve genevations to visit the v Hav ington vonsev ation avea fov fishing and vanoeingvIt also sevuves the existing and gvowing v establishment of bivds, wildlife and vegetationv
Thanv you fov the oppovtunity to expvess ouv thoughts and vonvevns,v
Nanvy Svillingsv

Rick Gol Harrington Dam an Pon

From: philiUkerr[redacted]
To: RickJGoldt <goldtr@thamesriver.on.ca>
D e: 11/12/2016 10:52 AM
Subjec : Harrington Dam and Pond
CC: <taskerc@thamesriver.on.ca>

Hello RicU U
hoUe that you're well.U
've been sUeaking withJGavin Houston, and he has reUorted to me that he had a very Uroductive meeting U withJyou and ChUris Tasker, whichJis great to hear.U

He also mentioned that UTRCA has been disaU ointed at the lackJof written resUonse from local U residents after the PUC's. Frankly, this does not surUrise me, but IUdon't think that the significance of the U igh attendance for the Harrington PUC's can be over-stated. While IUunderstand that it Uresents Uroblems U for data collection and statistics if comments are only verbal, IUexUect that local residents, who exUressed U concerns in Uerson at these meetings, exUected that a record was being keUt of their comments, and these U would be given the same weight as written resUonses. ItUcertainly was not clear to me that only written U comments would be given full weight. IUdon't believe that it is an exaggeration to say that there were ten U times, or twelve times as many UeoUle who attended these forums in Harrington versus Embro. This U certainly says something about the Uassion that the Harrington community has for keeUing their Uond.U

t won't surUrise you that IUhave some furtherUoints to makeJwithJresUect to maintaining tUe Mill Pond.U

Harrington's entire existence and identity is connected to this Uond. WithJbut it, Harrington is just another U crossroads. When we went on the tour of rehabilitated sites withJyou, and we drove into the Monastery, U it was Uointed out that down there, in that scrub and brushJwas the naturalized stream. ItUcould not even U be seen from directly above where we Uarked, and while IUunderstand that there are many factors at Uay, U it is unfathomable to me that someone would suggest taking the resource that we have in Harrington, U and reducing it to that. U

t is worthJremembering, once again, the community efforts, funds, and hard volunteer hours whichJhave U been Uut into the restoration of the Harrington Grist Mill. Failure to maintain a Uond of sufficient size to U feed a sluice, and Uower this mill, renders all of that effort futile, and reduces the historical and U otentially educational Mill to nothing more than a barn, withJno context, and withJa bunchJof quirUy U machinery in it.U

While it wasn't mentioned in the first Uublic meeting that IUattended (in 2011 IUthink) the free flow of U fishJseems to Uave become a major criterion for determining the future of Harrington Uond and dam. U While it is certainly obvious that a dam imUedes the movement of fish, some of the fisU that it imUedes U would be undesirable Uredators in Trout Creek, coming uUfrom the artificial environment created by U Wildwood Dam. IUbelieve that this hazard far outweighs the Uotential benefit of the limited additional U access that removing Harrington Dam would Urovide, considering that there are other dams not too far U uUstream.U

have askedUreviously wUy the habitat for fishJseems to be taking Urecedence over the habitat for birds, U water birds, mammals and reUtiles that Harrington Pond Urovides, some of these being on "sUecies of U sUecial concern", or "threatened" lists. This question has not been sufficiently addressed, in my oUinion.

On the tour;of;rẹha; l;t; ted s;tes, ment;oned a; ove, I w; s espec; lly inte;ested in see;ng "of;-l;ne" ponds ; nd I w; s ple; sed to see 3 or;4 of;them on the tour; I w; sn't ple; sed howeve; w;th how they appe; ed; ; st; gnant and weed-choked. These conditi;ons would ce;t; nly not ; e conduc;ve to m; ny of;the ; ec;e; t;onal act;viti;es that t; ke pl; ce on H; ngton Pond, such as c; noe;ng, p;cnicking and f;shing ; ut ; would, howeve; p;ovide the pe; ect conditi;ons for;the mosquito popul; t;on to explode.;

At that f; st meet;ng that I attended in 2011, one of;the opt;ons for;the dam that you p;esented w; s ; ep; , and while I unde;st; nd that you feel that the existi;ng st;ucture is too unst; le for;this, surely, i; ; the w; te; f;om the pond w; s tempo; ly lowe;ed or;dr; ned suf; c;ently, extens;ve rep; s could ; e ; unde;t; ken to ; oth the conc;ete st;ucture and the ; e;m, w;th l;ttle or;no r;sk. I st;ll ; el;eve that sheet ; p;l;ng of;the length of;the ; e;m should ; e invest;gated as a;vi; le opt;on. ;

F;nally, as you know, the poss; l;ty of;a;l; ge corpor; te donat;on has ; een discove;ed. I ; el;eve that ; this, along w;th the H; ngton and A;e; Communi;y Assoc; t;on's p;oven t; ck record for;fund-; s;ng, ; nd ongoing custodi; nship of;the Conse;vat;on A;e; , Pond and M ll must ; e respected, so that this ; nvalua; le resource c; n ; e p;ese;ved for;future gene; t;ons.;

Most s;nce;ely,;
Phil;p D. Ke;
B. Tech., A;chitecture;
Cha; , H; ngton and A;e; Communi;y Assoc; t;on;

From: susan graham[redacted]
To: "goldtr@thamesr ver.on.@a" <goldtr@thamesr ver.on.@a>@
D : 11/11/2016 5:24 PM@
bj c : Harr ngton Pond@

Hello, my name@s Susan Hew tt Graham, and I am wr t ng@ regards to the Harr ngton Pond.@
Please do not alter the dam and beaut ful surround ngs. It would ta@e a huge@hun@of Harr ngton away.@
I spent my@h ldhood, and teenage years, and@to my twent es w th that area as my tou@ stone base.@
Our fam ly of 8 l ved about 30 yards from the pond, so@was a b g part of l fe every day. The people@ the@ area were not r h, but were r h n a beaut ful natural sett ng w th the dam and Pond@ the@enter of the@ ommun ty.@
Our@hur@ was r ght bes de the pond too, at the heart of the v llage.@
I am now an art st, and began@eat ng my pa nt ngs there, at the Harr ngton Pond.@
I l ved and ra sed my@h ldren@ Ottawa, and now Dor@ester, two beaut ful areas where her tage and@ natural beauty are honoured. I would l@e to th n@that th s w ll be susta ned@ Harr ngton too.@
Susan Hew tt Graham@

Sent from my@Pad@

Dear Rick,
I hope you are well. I am writing to add some comments to those I left at the last meeting in Harrington Hall.
At that time, it seemed that my first two preferences for the Harrington dam(do nothing or build a new one) were impossible options. So I felt that the off-line pond was the least undesirable option left. I had concerns about this option that I voiced at the meeting: namely, where was the toxic sludge going?
How could a "naturalized " setting be relatively maintenance free and not unsightly?(I have seen the end results of many "naturalization" projects, and it has been a cluster of overgrown weeds and trees, with potholed ground , not conducive to walks). Because of maintenance-free overgrowth, would the pond even be visible if not standing right by it? If, as suggested, there be a deeper immediate drop in depth to combat weeds, would this not be a concern for children, and for liability?
How could canoeing and boating still be possible with such a small pond? Would the pond be accessible if weeds prevented access ? How does non-moving water not create more mosquitoes? Will the use of pesticides be required, or will fish and wildlife take up the slack?
Which brings me to the subject of fish and wildlife. After the meeting, I spoke to a biologist who was as puzzled as I over the concerns for the well-being of the native brook trout, which seems to be a motivating factor in favour of removing the dam. He felt the native trout were in no danger now. Would not the removal of the Harrington Dam give easier access to the undesirable fish from Wildwood Lake, a man-made lake? Also, would the ten private dams on Trout Creek be removed to protect the fish? Would it not be better to make our pond a better reservoir for the brook trout?
I am also concerned about the change in wildlife habitat that gathers round a pond, species that have begun to come back to this area to breed and nest. Wild swans, osprey, and bluebirds. We have had beavers and muskrats, snapping turtles and certain snakes. The disruption of their habitat is troubling.
The disruption of the earth and the water levels also concerns me. We have a dug well, as do our neighbours. All our water comes from this well. The fire department has used our large pond as the water source to put out fires. Our insurance relies on the ability of the fire department to to their job, and the reduction of our largest water source concerns me.
Last, our community has been gathering and fundraising for nearly two decades to rebuild and refurbish the mill, and ultimately, to see it running again. How is this possible without the full water power of our pond? Over three decades, we have created paths and walkways, planted trees and shrubs, all planned with our large, beautiful, serene pond as the focus point. All that work goes for naught without the focal point.
I accepted the option of off-line pond and creek because I believed the options I actually wanted were off the table. But if we can find a corporate sponsor, and fundraise over the decades to come, why could we not have a new dam, like the one in Dorchester?
Our community is not very vocal, but we DO things. I would like to think we could maintain one of the most beautiful ponds in Ontario, and certainly in the Upper Thames Conservation Area, for a few more generations to come.

Respectfully,

Seana McKenna

Rick Gol arrington Pon

From: "Rick & A0 n" [redacted]>
To: gol0t0@tha0nes0ive0on.c0>
D e: 11/19/2016 10:10 AM
Subjec : H0 i0gton Pond
CC: s0veha0 i0gton0pond@gm0i0com>

Dear Mr. G5
I am a resi5en5 iving jus5wes55f Harring5 n. I an5 my par5ner w5u5 n5 supp5r he rem5va 5f 5he 5 Harring5 n Dam.5
We are very much envir5nmen5a is5s an5 manage 5ur pr5per5y (5 acres) 5rganica5y. Fr5m wha5we 5 have wi5nesse5, we 5 n5 be ieve Upper Thames has is5ene5 5 he c5mmuni5y regar5ing 5he 5am. 5 This 5am is his5 ric an5 sh5u be main5aine5 a5a5 c5s s. We be ieve na5ura ize5 p an5ings sh5u be 5 esigne5 in5 he fabric 5f 5he 5am 5 na5ura5y anch5r an5 main5ain 5he s5ruc5ure. There is a s5 n5 5 supp5r f5r y5ur excuse 5ha5i5wi5 pr5vi5e a na5ura f5 w 5f fish an5 wi5 ife. Y5ur 5rganiza5i n can'55 use 5his excuse 5r I w5u5 5hink 5ha5a5 5ams sh5u5 be rem5ve5!5
I is a beau5ifu p5n5 in a beau5ifu se5 ing an5 is 5he hear55f 5he c5mmuni5y.5
W5rk wi5h 5he c5mmuni5y an5 n5 agains5us.5
Sincere y5
A5an Wa5 s5
Rick Weingar5en5

Rick Gol rring on pon

From: ouiLe[redacted]
To: "golL r@LhameLriver.oL.ca" <golL r@LhameLriver.oL.ca>
D e: 11/20/2016 8:30 L ML
Subjec : HarriLgLoL poL

Dear Sir:L

reLiLeL of HarriLgLoL, we reLpecLfully requeL LhaL Lhe poL coL iLue aL a viLal aL eL Lo our LaLive L pecieL aL Lo Lhe iLeL iLy of our commuLiLy. IL haL beeL aL gem Lo all of uL aL we wiLh iL Lo coL iLue L o be aL imporLaL compoLeL Lo Lhe eLrichmeL of our youLh iL Lhe fuLure. L

SiLcerely,L
ouiLe aL Doug LaL reLhL

SeL from my BlackBerry 10 LmarLphoLe oL Lhe Bell LeLwork.L

Rick Gol Save Harrington Pon

From: mel ssa steve [redacted]
To: "goldtU@thamesUveUon.ca" <goldtU@thamesUveUon.ca>
D e: 11/16/2016 8:30 PU
ubjec : Save HaU ngton Pond

Good Evening MU Goldt,U

It has come to ourUattent on that the HaU ngton Pond is in dangeUof be ng reUmoved. MyU fam ly and I, U although, not reUs dents of HaU ngton norUanywheUe nea by, fUequent the pond and appUec ate the naturaU U and peaceful haven that it is. It is a spec al place, one that bUngs us to it at least monthly, and leads us to U supporUt in anyway poss ble. U

nde standing that the pond is in need of updat ng, and that the cost to the munic pal ty is sUgnif cant, U the benef ts of the pond must also be cons deUd in so many otheUways to offset this cost. Not only in U conseUvat on, but also culturaUlly to local reUs dents; historUcally, to all; and future costs in lost investment U and local econom c sp noffs in tourUsmU

Saving to shorUteUn ga n would dissuade us fUom eveUpurUhas ng pUope ty in HaU ngton; orUbUngingU my fam ly to vis t if theUe was eveUa draUn down of the pond. We always stop to enjoy a meal, shop, and U f equent the local aUea afteUvis t ng HaU ngton fUstU

I s nceUely hope the inteU ty of the pond would reUma n,U

Thank You forUyour t me,U

el ssa BouchaU

UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

Public Information Centre – Comment Form

The Environmental Assessment for the Harrington Dam, in the Harrington Conservation Area, is intended to address safety concerns identified as part of the Dam Safety Assessment (ACRES, 2007) including insufficient spillway capacity, spillway instability and embankment stability. Through the study, potential alternatives will be evaluated to determine a course of action to mitigate dam safety concerns.

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Please provide your comments regarding the preferred alternative below.

Comments: Pleased to see that Alternative 4 (chosen) provides a pond. Still prefer the vistas that a large on-line pond provides. Wonder if there isn't a hybrid of these that would work. In other words, a large semi-on-line or semi-off-line pond with rocky ramp.

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: PHILIP KERR (HARRINGTON)

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by November 3, 2016

Thank you for your participation.

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Please provide your comments regarding the preferred alternative below.

Comments: SINCE DOING NOTHING IS NOT A VIABLE ALTERNATIVE, YOUR PREFERRED OPTION SEEMS TO BE THE BEST CHOICE. THOUGH I THINK THE ORIGINAL "STUDY" WAS JUST AN EXERCISE OF BUREAUCRATIC BOONDOGGLE (PAYING ENGINEERS TO TELL YOU A 150 YEAR OLD DAM IS NOT "UP TO CODE")? I THINK YOUR FOLLOW UP IS EXCELLENT.

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: MILES POTTER

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by November 3, 2016
Thank you for your participation.

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Please provide your comments regarding the preferred alternative below.

Comments:

WE LIKE THE IDEA OF ALT. #4

- WOULD LIKE TO KNOW IMPACT OF WORK THE AREA BORDERS ON TO MY PROPERTY. WHAT TREES WOULD STAY OR GO. & TREES R. ETC.
- I AM CONCERNED ABOUT STAGNANT WATER IN THE POND. - SMELLS, BUGS. ETC.

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: BRENT & LISA MONTGOMERY

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by November 3, 2016
Thank you for your participation.

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Please provide your comments regarding the preferred alternative below.

Comments:

Of course, my preference is to preserve the pond: its serenity, its sanctuary for water birds that require a large body of water; its beauty - and its history. I would have preferred to do nothing or replace the existing dam. We have dug wells, and are close to the pond. I have seen fire-fighters use the pond water. I think you have done extraordinary research, and I am glad that some kind of POND is preferred. The larger the better.

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: SEANA McKENNA

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by November 3, 2016
Thank you for your participation.

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Please provide your comments regarding the preferred alternative below.

Comments:

- still not convinced the dam needs to be replaced.
- still not convinced that the probability tools showing potential failure of the dam take into consideration all the variables that exist.
- I do appreciate that the proposed plan shows consideration for a water route to the mill
- I have concerns that the off-line pond will be a stagnant body of water (mosquito haven) in spite of the plan to have access of water from the stream
- I have grave concerns where the dollars to pay for this plan will come from

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Please see attached comments.

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

NOV - 4 2016

Name: Nancy Skillings

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by November 3, 2016
Thank you for your participation.

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Comments continued . . .

- I have grave concerns that although this is a plan that is presented, outlined, and explained, we as a community have NO guarantee it will be completed as planned. We all know plans can change and we could be left with a VERY unsatisfactory situation!

- We NOW HAVE an established natural setting with birds, wildlife, and many regular visitors. Visitors that come to fish, but also many visitors who enjoy walking the trail around the pond and appreciating this "established setting." These visitors are from the local community and surrounding areas. I live in the community and often meet people who come to enjoy the setting and comment on how for generations they have visited the mill pond. The proposed plan would change and uproot what is there now. It would take a long time to re-establish natural habitat.

- I want to emphasize again the historical value of the millpond and the intricate and significant part it is in this community.

- I find it unsettling that many dollars can be spent on buildings, development, vehicles etc. AND yet here, where we have a historical and natural established

environment ⇒ we can't justify spending the money to preserve and restore it.

I find it also unsettling that in a democratic society where we have had an opportunity to vote and voice our opinion of the future of the millpond and the dam, the majority of people voted to replace / restore / repair the dam and keep the millpond and yet ... this is the proposed plan ???

Nancy Skillings

UPPER THAMES RIVER CONSERVATION AUTHORITY

Upper Thames River Conservation Authority

Class Environmental Assessment

Harrington Dam

ecosystem recovery inc. PROFESSIONAL ENGINEERS

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Please provide your comments regarding the preferred alternative below.

Comments: THE OFFLINE POND IDEA IS A POOR SUBSTITUTE FOR THE FULL POND THAT CURRENTLY EXISTS. IT THREATENS TO DIMISH THE QUALITY OF COMMUNITY LIFE & DESTROY HISTORICAL SIGNIFICANCE & VALUE. TRANSMUTING THE CORE OF THE PHYSICAL VILLAGE HAS MANY KNOCK-ON EFFECTS, THAT WE CAN ONLY GUESS AT. - NONE OF THEM SEEM POSITIVE OR PROMISING. THEY POINT TO A DECAY & EROSION OF A STRONG COMMUNITY LIFE.

I OPPOSE THIS ALTERNATIVE.

I SUPPORT KEEPING THE EXISTING POND STRUCTURE.

Please print your name and address below, and leave your completed Comment Form in the box provided. You may also email your comments to harrington_dam@thamesriver.on.ca, or mail your comments to:

Rick Goldt C.E.T.
Supervisor, Water Control Structures
Upper Thames River Conservation Authority
1424 Clark Road, London, ON N5V 5B8
Tel.: 519-451-2800 ext. 244
goldtr@thamesriver.on.ca

Name: SEAN BREAUGHT.

Address & Postal Code: [redacted]

E-mail Address: [redacted]

Please submit comments by November 3, 2016
Thank you for your participation.

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NOV 1 8 2016

HELP SAVE HARRINGTON POND!

EVERYONE NEEDS TO WRITE IMMEDIATELY!!!

SEND YOUR COMMENTS BEFORE NOVEMBER 20 TO

RICK GOLDT AT UPPER THAMES RIVER CONSERVATION AUTHORITY

AT goldtr@thamesriver.on.ca

Or mail to

Rick Goldt, Supervisor, Water Control Structures

Upper Thames River Conservation Authority

1424 Clarke Road, London ON N5V 5B9

IMPORTANT POINTS TO COVER:

The Upper Thames River Conservation Authority has stated that Harrington Dam should be removed to allow the free movement of native fish, such as speckled trout, up and down stream, BUT the removal of this dam will also permit the free movement of non-native species of fish from the artificially created Wildwood Lake which will decimate the native fish species.

Considerable funds and volunteer hours have been spent restoring the Harrington Grist Mill. The only step remaining is to construct a sluice way to provide the necessary water power to run the Mill, providing an invaluable historic site and educational resource. If the pond is removed this will be impossible.

For many, Harrington Pond is the only reason Harrington is on the map. Fishing, including the annual trout derby, canoeing, picnicking, hiking and bird-watching will be extremely and adversely affected by the removal of the pond. Without the pond, Harrington loses a major part of its history and identity,

The extensive population of birds, water birds, water mammals and reptiles, some of which are on "threatened" lists, will be extremely and adversely affected.

Get of the above - the Harrington Dam is needed + necessary

Please add your own thoughts and arguments, and if you want guidance, send an email to saveharringtonpond@gmail.com . Remember that you must write your email or letter to Rick Goldt so that it

From: Tom Kittmer <[redacted]
To: Rick Goldt <goldtr@thamesriver.on.ca>
Date: 11/21/2016 11:08 AM
Subject: HARRINGTON POND

MY NAME ISTOM KITTMER AND I HAVE LIVED IN HARRINGTON FOR 63 YRS. I BELIEVE THAT THE HARRINGTON DAM SHOULD BE REBUILT OR REPAIRED.

THE POND HAS BROUGHT PEOPLE TO THIS AREA WHO SIMPLE COME TO ENJOY THE FISHING, ITS' WILDLIFE AND ITS' BEAUTY.

FOR YEARS THE TAVISTOCK ROD & GUN CLUB HAVE SPONSORED THE FISHING DERBY FOR THE KIDS. THEY PROVIDED A DAY OF FAMILY FUN .

THEY COVER THE COST OF EVERYTHING FROM STOCKING THE POND, TO FOOD AND PRIZES.

WITHOUT THE POND THERE WILL BE NO FISHING DERBY!

THE POND SUPPORTS ALL KINDS OF WILDLIFE BESIDES THE FISH. THERE ARE BALD EAGLES NOW COMING TO THIS AREA. WE HAVE SEEN MALLARD DUCKS,GEESE, OSPREY,HERONS,TURTLES,MUSKRAT,MINK,BEAVERS AND DEER, TO NAME JUST A FEW. THERE ARE A PAIR OF SWANS WHO STAY THE WHOLE YEAR ON HARRINGTON POND.

THE GRIST MILL RESTORATION IS DEPENDANT ON THE HARRINGTON POND BEING THERE! A LOT OF TIME AND MONEY HAS BEEN SPENT ON THE RESTORATION.IT IS A PIECE OF OUR LOCAL HERITAGE. LET'S NOT THROUGH ALL THAT OUT THE WINDOW!

THERE HAS ALWAYS BEEN A WET AREA BELOW THE DAM, WHERE THE WELL IS, WHERE WATER LAYS. IT HAS BEEN THAT WAY FOR AS FAR BACK AS ANYONE CAN REMEMBER. THE HARRINGTON AREA IS BLESSED WITH LOTS OF ARTESIAN WELLS AND CLEAN FRESH WATER FROM THE UNDERGROUND RIVER SYSTEM.

LET'S NOT END UP WITH AN AREA THAT LOOKS LIKE THE "DUCKS UNLIMITED" AREA, FOR WHICH THERE SEEMS TO BE NO MONEY TO FIX!

SAVE HARRINGTON POND!

TOM KITTMER

[redacted]

[redacted]

From: Cam Schiedel [redacted]
To: "goldtr@thamesriver.on.ca" <goldtr@thamesriver.on.ca>
Date: 11/23/2016 9:24 AM
Subject: The Harrington Pond

Hello Rick, I am contacting you today regarding the Harrington Pond as I understand that its future is undecided. I also understand that there is considerable information to consider both for keeping it, and for removing it. Iwill start by saying that the pond is one of the reasons that I gravitated to the area from London. When you are in Harrington, you look around and you feel like you could be in any Northern community in Ontario. It is in my opinion one of the most scenic communities in south western Ontario. The pond simply puts it over the top by adding a free recreational space for local residence to enjoy. And the word free cannot be underestimated. Nearby Wildwood has an associated user cost which is prohibitive for many people. This cost also steers people away from recreational activities and the outdoors. The Harrington pond has introduced countless kids to fishing and wildlife over the years, which is certainly a better option than video games in the basement. It also teaches them a lifelong respect for nature and the environment. Places like this are few and far between. Many are private, fenced off, or come with a user cost. We have a great opportunity to do the right thing and maintain the pond for future generations. You have the support of the community. Please help us save our pond.
Your consideration in this matter is much appreciated.

[redacted]

From: sherri hamilton [redacted]
To: "goldtr@thamesriver.on.ca" <goldtr@thamesriver.on.ca>
Date: 11/21/2016 9:58 AM
Subject: HARRINGTON POND

I WRITE TO YOU AS A RESIDENT OF HARRINGTON WHO HAS A BEAUTIFUL VIEW OF HARRINGTON POND EVERYDAY. I SEE PEOPLE ENJOYING THE POND AND PARK AREA EVERYDAY.

IT IS VITAL THAT WE SAVE THE POND FOR THE IMPORTANCE IT SERVES FOR THE WILDLIFE, THE COMMUNITY AND THE GRIST MILL. THE POND PLAYS A INTREGAL PART IN THE GRIST MILL RESTORATION, AND WITHOUT IT, ALL THE TIME, LABOUR AND MONEY SPENT, WOULD BE NOW WASTED.IF THE GRIST MILL RESTORATION PROJECT WAS ABANDONED, WE WOULD BE LOSING A PIECE OF OUR LOCAL HERITAGE.

NO ONE WANTS A MOSQUITO LADEN SWAMP AND STREAM TO REPLACE THE POND!

THE DAM NEEDS TO EITHER BE REPAIRED OR REPLACED.

JONI MITCHELL SAYS IT BEST WHEN SHE SINGS;

" don't it always seem to go

that you don't know what you've got till it's gone

they paved paradise and put up a parking lot"

SINCERELY,

SHERRI HAMILTON

[redacted]

[redacted]

From: Gavin [redacted]
To: GOLDTR@thamesriver.on.ca
Date: 11/23/2016 7:05 AM
Subject: option 8.docx
Attachments: option 8.docx; Part.002

Hello Rick, please find another alternative for the Harrington dam/pond that I hope will be considered.

Rick Goldt
UTRCA

Re: Harrington Dam

Dear Mr. Goldt,

In going over the documents provided for the Harrington Dam including past engineering reports and the most recent version of the EA, I believe there is another option available to bringing the dam up to modern standards that has not been accessed while at the same time allowing for improvements to the pond habitat and water quality.

First I would like to point out that the more time I spend looking at the dam issue and spending time on-site looking at the dam, dyke and pond, the smaller the issue becomes. This is a small dam in every essence of the word. It's height is minimal as is its length and the volume of water it is holding back. When thinking back to my time on the Red River flood plain, it is becoming more shocking to me the time and money that has been spent on this small project. Thoughts of spending hundreds of thousands more on engineering alone is appalling to me when what is proposed is not a new science. Enough is known about the site conditions- the rest a foregone conclusion from a construction perspective. In reality, this is simple stuff, a small project of which every aspect of it has been done before. That said, I would like to present Option 8.

OPTION 8 – Leaving the existing concrete structure in place, replacing the earthen dyke while leaving portions of the old one in place and, incorporating a spillway to accommodate increased flows and bring the flow capacity to within current guidelines.

Existing concrete structure:

Prior engineering reports conclude the structure is not in bad shape showing signs of only minor stress. The main issue with the structure is its inability to handle high enough flow levels based on new government guidelines. This can be rectified by installing a spillway directly across from the dam at the opposite end of the dyke.

The spillway:

I propose building a spillway at the North West corner of the pond. The channel for the water that passes over the spillway will be where the existing access road is. The water will flow down stream from the pond towards the parking lot and then turn East just before the existing

gate and concrete posts. Three trees would be removed at this point allowing the flow to travel East-Northeast across the existing level grass area, and dump into the creek below the dam at a point just North of the mill on the opposite bank. A track excavator would be used to make the channel for the water to follow. The trench would be lined with geotextile and rock to prevent erosion and slow the rate of flow (standard practice).

Initially, the portion of the spillway between the parking lot and the pond would be temporary. It would be made gradually deeper until the pond was nearly drained and the flow from the upper creek passed directly into the spillway. By doing this, the risk of dam/dyke failure would be eliminated and the dyke could be worked on as well as the pond itself. Hydrostatic pressure would be greatly reduced and dewatering, if still required, could likely be greatly reduced.

Dyke replacement:

If the water in the pond was substantially lowered using the spillway, the downward side of the existing dyke could be excavated – carved away, to allow for a quality clay core to be keyed in slightly below the current location (as per guidelines by Naylor Engineering, 2008). Some of the excavated material could be used to fill in between the clay core and the existing dyke to reduce costs. In this way an impermeable clay barrier would be installed and protected by the granular material of the the existing dyke with the pond side being relatively undisturbed. The end result would be a stronger, wider dyke. Riprap could be added on the pond side and, if required, a small retaining wall could be installed to reduce the downside footprint and save the trees that exist there.
At this time, money permitting, it would be possible to install a small spillway that draws from the bottom to improve water temperature- not only that leaves the pond but within the pond itself by improving circulation. Also, a sluice to the mill could be incorporated (money already in place)..

Upon completion of the dyke and pond improvements (excavation of pockets to increase depth and create islands to encourage weed growth, installing rock and gravel to improve habitat and stream flow, placing wood and wood piles to create habitat etc.) the temporary spillway could be plugged with clay and brought to the required height. Using erosion control fabric and riprap, a permanent spillway would be created to accommodate periods of high flow and reduce stress on the existing concrete dam.
Upon the water level returning to normal, dredging could also occur using a mobile floating dredge and geotextile tubes placed in the parking area or on the grass to contain the sediment for later disposal.

Conclusion

This is obviously a simplified version of the plan but it seems like a fairly simple project and would cost a fraction of the other options proposed. Again, this type of work has all been done before. It isn't reinventing the wheel. What is gained is the continuation of the historical and social aspects of the pond and mill, improved water quality, habitat and fishing opportunities, reduced risk and liability and reduced costs.
The only downside is that I am two days late for the November 20th deadline.

Comments and concerns about the Harrington Pond EA

Though Harrington pond is technically man made due to the installation of the dam, in reality, it is a natural environment. Having been in existence in one form or another for encroaching on 200 years, the only thing NOT natural about it is the presence of the carp that got into it from the Wildwood reservoir. Though the pond itself is in need of some maintenance, mainly due to neglect over the past 20-30 years, it is still an extension of the headwaters of the spring fed system, a cold water environment with a fairly heathy native fish population and benthic environment.

If the plan goes ahead to remove the dam and create an off-line pond and an artificial stream bed, the habitat for the fish will be completely disturbed and the new stream un-natural with the benthic environment extirpated- completely eliminated due to the excavation work and removal of apparently contaminated silt. The best method for rehabilitating a stream or river is to use the existing material within the stream bed and to disturb the benthic environment as little as possible. Rock is usually added but anything excavated from one spot is used somewhere nearby. Nothing is removed entirely, merely shuffled around. What is proposed for Harrington is an entirely new stream bed with new material. Without a healthy benthic population it will be years or decades before it becomes remotely close to what currently exists with the distinct possibility that it will never be used by the fish as intended. We do not fully understand the nuances of a fishes behaviour. One missing component could ultimately affect how the fish utilize the new stream. One thing for sure is that there is a huge risk in undertaking this type of project and that years will go by before anything will be gained.
Add to this the fact that the natural cold water environment of the Harrington Creek headwaters will be opened up to the unnatural warm-water environment of Wildwood Lake, further risks are being unnecessarily taken. The introduction of undesirable species of fish, invertebrates and disease can quickly affect the natural environment that the preferred plan is supposed to benefit. I am aware that measures can be taken to reduce or attempt to prevent the travel of unwanted fish upstream, but this is not foolproof. The risks still remain. And I would be remiss if I did not mention the fact that an assessment of the benthic community in the pond seems to be absent, as does fish sampling from below the dam during periods of high flow when the headwaters would be at most risk should the barrier of the dam be removed.

One item that I find puzzling is the apparent fear of the sediment should the Harrington Dam fail. Currently during high flow periods from the headwaters, silt laden water passes over the spillway of Harrington Dam and into Trout Creek/Wildwood lake. But first, I think a new distinction needs to be made between what is Trout Creek and what is Wildwood Lake. The EA report(s) currently describe Harrington Creek as travelling about 300 meters from below the dam and emptying into Trout Creek. This is a misnomer. Harrington creek flows into Wildwood reservoir at that point. Trout Creek is actually gone until it passes closer to the 33rd Line further to the East. Due to the creation of Wildwood Lake and the retention of water through much of the spring and summer, this portion of what was formerly Trout Creek is now a slow moving, silt laden warm water environment unsuitable for the trout that used to inhabit it but teaming

with warm water species such as carp and suckers, catfish and rock bass. The one benefit to this area is that it is the beginning of a large, shallow plateau of mud and weeds that extends to the bridge on the 31st Line. This large, wide area is actually a delta for the water flowing from Harrington Creek and Trout Creek. Sediment trapped in the water settles to the bottom as the water slows. This is an ideal situation as the natural filtration properties of the marsh would help to clean the water before it enters Wildwood Lake proper. In the fall, as the water recedes due to flood control measures, the drying mud and direct sunlight would help to break down some of the residue currently found in the silt. Should the Harrington dam fail, much of the sediment would settle in the flood plain immediately below the dam before passing through the bridge on Rd 96. Whatever sediment ***did*** make it through would not go far and would begin to settle quickly once it hit the slower moving water of the marsh at the beginning of Wildwood Lake 300 meters away. As stated in the Acres report from data collected in 2002, the Environmental impact would be minor with no long term effects.

As for repairing or replacing the dam and improvements to the pond itself in the form of dredging or deepening, I believe two options have not been fully assessed. First, regarding the concrete and earthen work required for the dam, cannot a temporary stream be created on the West side of the pond closer to the North end the purpose of which to not only handle the flow from the headwaters but to also reduce the depth of the pond? Using a track excavator, geotextile and rock, water from the pond could be re-routed by the South edge of the parking lot to a point midway between the current dam location and Rd 96. This would eliminate risk of dam failure and allow for not only safe work on the existing dam and dyke but also allow for work to improve the pond itself. A bottom draining spillway could also be installed to improve the quality and temperature of water exiting the pond once the temporary stream is removed and the pond becomes operational again. The cost of this would be nominal and allow for more efficient work on the dam and dyke.
Another option that has not been looked at is the use of low impact dredging. By using a small floating dredge, and if the silt is considered too hazardous to remain in the pond area, pumping the silt into large geotextile bags for later disposal, improvements to the pond for both the native fish and improved water quality could be undertaken without destroying the existing benthic environment. The cost of this is manageable, less than the cost of another study on the pond!

To conclude, it is my belief that not enough information has been gathered to truly determine that the best option, from an environmental perspective, is to remove the dam and allow for free travel of fish. If the habitat below the dam was the way Trout Creek used to be, yes, absolutely, but it is not. What is proposed is to turn back 200 years of time and introduce what is now a natural environment into a modern man-made mess in the form of the warm reservoir of Wildwood Lake - a decision made without understanding the true nature of the unhealthy habitat below the dam nor the status or the health of the invertebrate population above the dam. I believe that the costs of creating the proposed “natural” stream bed are underestimated especially when factoring in the quality of the habitat being created. And I believe the costs of replacing the dam have not been properly assessed or all options considered for its efficient replacement, along with upgrades to the pond itself. This can be

done in such a way as to protect the environment of the headwaters AND improve the quality and temperature of the water that exits the pond and enters Wildwood Lake, something that was NOT accomplished in Dorchester. It appears to me this is more a decision based on liability and costs, not an improvement to the environment.

Michelle Houseman
Harrington
Nov. 16, 2016

The Thames River Anglers Association
[redacted]
traa@anglers.org

November 1st, 2016

Rick Goldt – Upper Thames Conservation Authority

Re: Comments Regarding Harrington Dam Preferred Solution

Rick

The Thames River Anglers has been dedicated to protecting and sustaining a viable multi-species fishery within the watershed for over 25 years through education, environmental advocacy and grassroots projects that help to rehabilitate the river.

We are strongly in support of the preferred approach to decommission Harrington Dam and create a naturalized channel along with an offline pond. We agree with the liability concerns and ongoing costs of maintaining outdated and unsafe dams highlight that they no longer present a strong business case to exist. Moving them and restoring the former reservoir area to a naturalized stream channel will enhance the surrounding parks along with the opportunity to enjoy the area by local residents and visitors. It is also worth noting that there are federal funding opportunities available to assist with the cost of removing dams and creating naturalized streams to restore sport fisheries: http://www.dfo-mpo.gc.ca/pnw-ppe/rfcpp-ppcpr/index-eng.html

As a group that advocates and works hard to protect these ecosystems we hope that those involved in making the future decisions regarding the Harrington Dam will see that the benefits of following the preferred approach; far outweigh the alternatives.

Thanks again,
Paul

Paul Holmes
Stream Restoration Committee Lead and Chairman
Thames River Anglers Association

Rick Goldt - Harrington Dam EA - ORA Comment

From: Robert Huber [redacted]
To: "goldtr@thamesriver.on.ca" <goldtr@thamesriver.on.ca>
Date: 11/3/2016 8:40 AM
Subject: Harrington Dam EA - ORA Comment
CC: Linda Heron [redacted]
Attachments: 2016-10-31-ORA Harrington Dam - final.pdf

Rick,
Please find attached our comments on behalf of the Ontario Rivers Alliance regarding the preferred solution for the Harrington Dam Environmental Assessment.

Thank you again for the opportunity to participate in this process.
Robert

Robert Huber
Vice Chair, Ontario Rivers Alliance
[redacted]

ONTARIO RIVERS ALLIANCE

[redacted]

OntarioRiversAlliance.ca

3 November 2016

Rick Goldt, Supervisor, Water Control Structures
Upper Thames River Conservation Authority
goldtr@thamesriver.on.ca

Regarding: Harrington Dam Preferred Solution Comment

Dear Rick:

Ontario Rivers Alliance (ORA) is a Not-for-Profit grassroots organization acting as a voice for several stewardships, organizations, and private and First Nation citizens who have come together to protect, conserve and restore healthy river ecosystems.

ORA is in support of the preferred option to decommission Harrington Dam and rehabilitate the former reservoir to a natural channel and offline pond.

This Environmental Assessment was delivered with phenomenal detail and effort on behalf of Ecosystem Recovery Inc. We understand that the results leading to the preferred approach were fairly close and appreciate that they demonstrated how changing the weightings would impact the recommended option.

We trust that if council and the agencies involved in the follow-up stages approve the project; even those who would have liked to see the dam repaired will discover how much better it will be to enjoy the area with a healthy naturalized stream and offline pond.

Thank you for the opportunity to participate in this process!

Respectfully,

Robert Huber
Vice-Chair, Ontario Rivers Alliance
[redacted]