Heritage Impact Assessment
Enerdu GS Expansion and Redevelopment Project,
11 Main Street, Almonte Ward, Town of Mississippi Mills

Submitted to:
Mr. Ron Campbell
Enerdu Power Systems Inc.
9094 Cavanagh Road
Ashton, ON K0A 1B0

Report Number: 13-CW-EN-HIA

Distribution:
1 PDF Copy and 3 Hard Copies – Town of Mississippi Mills
1 PDF Copy – Paula Kulpa and Laura Hatcher, Ministry of Tourism, Culture and Sport
1 PDF Copy – Muriel Kim, BluMetric Environmental Inc.
Notice to Readers

This report was prepared by Julie Harris, Contentworks Inc. for BluMetric Environmental Inc., consultant to Enerdu Power Systems Inc.

Questions about this report can be directed to:

Muriel Kim
BluMetric Environmental Inc.
3108 Carp Road
Ottawa, Ontario K0A 1L0
T: 613 839-3053 x261
E: mkim@blumetric.ca

or

Julie Harris
Contentworks, Inc.
120 Sunnyside Avenue
Ottawa, ON K1S 0R1
T: 613 730-4059
E: info@contentworks.ca

Contentworks was engaged to produce the report as a subconsultant to:
BluMetric Environmental Inc.

July 2014
Executive Summary

The cultural heritage consulting firm Contentworks Inc.¹ was retained by BluMetric Environmental Inc. to undertake a Heritage Impact Assessment (HIA) for the Enerdu GS Expansion & Redevelopment Project (hereafter referenced as the Enerdu Project) at 11 Main Street, in the Town of Mississippi Mills (formerly Almonte). The Enerdu Project is a new power facility installed adjacent to an existing power plant in the core of the former town of Almonte, now part of the amalgamated Town of Mississippi Mills. The HIA examines the impact of the Enerdu Project on built heritage and cultural landscapes, including built heritage on the subject property (known as the Almonte Flour Mill), five heritage properties designated under the provisions of the Ontario Heritage Act, an historic bridge assessed according to the O. Reg. 9/06 as part of the HIA, and a cultural landscape (named Mississippi River Cultural Landscape for the purposes of the HIA), also assessed through the HIA.

A draft HIA was submitted for public review on 21 May 2014, in advance of a presentation made by the consultant to the Town of Mississippi Mills Heritage Committee on 27 May 2014. Comments were subsequently received from the public and the Ministry of Tourism, Culture and Sport (MTCS). All comments were reviewed and any comments that were relevant for completing the final HIA were addressed in the report. The summary of comments received during the review period is included in the report as Appendix 1.

The Enerdu Project is located in a sensitive location in the Mississippi River Cultural Landscape, as has been acknowledged by the proponent. The cultural landscape is a post-industrial area with numerous historic buildings, structures and relics dating from the mid to late 19th century related to the operation of textile and other types of mills served by waterpower from the Mississippi River. Over the past few decades, many former industrial buildings (including the Almonte Flour Mill Complex that is part of the Enerdu property) have been adapted to new uses along the falls of the Mississippi River; the results have been very positive, providing residents and visitors with greater access to the area’s historical associations, seasonally changing views and increasing number of public amenities.

The three components of the Enerdu Project that have the greatest potential for adversely affecting cultural heritage resources are the new powerhouse, the intake canal wall (Weir A) and the new weir. The Enerdu Project will reinforce the importance of waterpower in the area’s history, but it will also insert a relatively large 21st-century work (the powerhouse) into the landscape. A new intake canal wall (Weir A) and a set of three new weirs will also create new views and change others. Prior to completing the final HIA, engineering designs were finalized that addressed many concerns about the views through bringing the footprint of the set of three weirs into better alignment with the existing weirs, eliminating most changes to the existing waterfall terrace near the Small Island, and allowing more water to flow over the intake canal wall and weirs in most waterflow conditions.

Mitigation measures have been recommended in this HIA for both the construction and design stages to lessen the negative impacts on all cultural heritage resources – built heritage and

¹ The author of this HIA is Julie Harris, President, Contentworks Inc. Ms. Harris is a member of the Canadian Association of Heritage Professionals. She is an architectural historian with 30 years of expertise in heritage planning, cultural heritage assessments and conservation planning.
cultural landscapes. The key mitigation recommendations are:

- For the powerhouse, a qualified architect with heritage conservation experience and knowledge should be engaged to provide input into the design of the powerhouse to ensure that its form, massing, cladding and appearance are consistent with heritage conservation standards and guidelines for:
  - infill projects in cultural landscapes of heritage value
  - additions to heritage buildings (due to the project’s co-location on the Almonte Flour Mill property)
  - additions to cultural landscapes
- For the powerhouse, as per the agreement made by the proponent to involve the Town of Mississippi Mills and the Heritage Committee, a process to bring public interests into the design of the powerhouse is needed. A proposed process, to be managed by the Town, is described in more detail in Appendix 5. The proponent will choose the final design, but input from a community advisory committee would ensure that the complexities of the landscape are addressed to the greatest extent possible.
- When addressing the design of the powerhouse, the architect or engineer should also propose devices that might be considered to make the intake canal wall more sympathetic to the historic character of the landscape and the bridge.
- High-quality photographs of industrial remains, including the walls of the historic flume, should be taken during the construction work as a permanent record of the structure.
- During construction, measures should be taken to address accidental damage to heritage resources, including the former railway bridge.

These recommendations are also consistent with comments made by the public, the Town of Mississippi Mills Heritage Committee and the MTCS.

A summary of all comments is included in Appendix 1: Public Comments Received on the Draft HIA.
5.2.1 Accidental Damage and Blocking Access During Construction ........................................... 30
5.2.2 Accidental Damage from Flooding .................................................................................................................. 30
5.2.3 Potential Lack of Access for Traditional Recreational Activities ......................................................... 30
5.3 POTENTIAL POSITIVE IMPACTS ........................................................................................................... 30

6 MITIGATION RECOMMENDATIONS ........................................................................................................... 31
6.1 ALTERNATIVES ........................................................................................................................................... 31
6.2 POTENTIAL ADVERSE IMPACTS THAT CANNOT BE MITIGATED ................................................ 31
6.3 CLASS EA GUIDANCE ON MITIGATION .................................................................................................... 31
6.4 SUMMARY OF MITIGATION RECOMMENDATIONS ............................................................................... 32
6.5 DISCUSSION OF MITIGATION RECOMMENDATIONS ........................................................................... 33
   6.5.1 General ................................................................................................................................................. 33
   6.5.2 New Powerhouse and Intake Canal ........................................................................................................... 33
   6.5.3 Access Road and Tailrace ..................................................................................................................... 35
   6.5.4 Excavation for the Headpond ............................................................................................................... 35

7 SUMMARY STATEMENT .......................................................................................................................... 37

8 SOURCES ..................................................................................................................................................... 39
8.1 ENERDU PROJECT MATERIALS .................................................................................................................. 39
8.2 LOCAL COMMENTS IN THE NEWS ............................................................................................................. 39
8.3 MUNICIPAL REPORTS AND RECORDS ....................................................................................................... 39
8.4 HISTORIC SOURCES ................................................................................................................................. 40

9 FIGURES ....................................................................................................................................................... 41

10 APPENDICES .............................................................................................................................................. 65
   Appendix 1: Public Comments Received on the Draft HIA ........................................................................... 65
   Appendix 2: MCTS Checklist for Impacts on Cultural Heritage .............................................................. 72
   Appendix 3: MCTS Letter to Enerdu, 1 February 2013 ............................................................................. 74
   Appendix 4: Public Comments Addressed in March 2013 ..................................................................... 76
   Appendix 5: Recommended Process for Town of Mississippi Mills Input into the Powerhouse Design .................................................................................................................. 77
1 About the Study

1.1 Purpose

Contentworks was retained by BluMetric Environmental Inc. to undertake the Heritage Impact Assessment (HIA) for the Enerdu GS Expansion & Redevelopment Project (hereafter referenced as the Enerdu Project) at 11 Main Street, in the Town of Mississippi Mills (formerly Almonte).

The purpose of the HIA under the Class EA for Waterpower Project is to evaluate and assess potential adverse impacts of a proposed project on cultural heritage of value or interest, and provide the proponent with information required to take steps to mitigate impacts. The guide to the Class EA for Waterpower Projects states that:

> If a potential heritage resource is present, the proponent should complete appropriate heritage assessments and evaluations to confirm the existence of heritage resources. Cultural heritage value or interest is determined through application of criteria found in Ontario Regulations 9/06 and 10/06 under the *Ontario Heritage Act*.

> Underlying the legislation are some basic principles. Cultural heritage resources should be identified and evaluated based on research and documentary evidence. Also, decisions that affect heritage resources should be made in an open, accountable way, taking into account the views of interested persons and communities. Assessment of the impact of proposed activities on the cultural heritage value of heritage resources should inform the decisions that may affect them.²

Further, the Ministry of Tourism, Culture and Sport requested that the HIA provide guidance on the conservation of affected built heritage resources and cultural landscapes.

The Enerdu Project is divided into two distinct parts as shown in Figure 1, Figure 2, Figure 3, Figure 4, Figure 5, Figure 6 and Figure 7. The main site, located at 11 Main Street, is commonly called the Almonte Flour Mill (formerly Maple Leaf Mill and the Wylie Mill). It consists of a complex of attached structures anchored by a former four-storey stone mill attached to a new condominium addition and a powerhouse and flume. The main weir for the project is located in the Mississippi River, just upstream from a former railway bridge and diagonally across the river from the Almonte Flour Mill. Both properties are located in the core of Almonte, near the former town hall, post office, main churches, business district and mills (Figure 8). The property at 11 Main Street is not protected by a heritage by-law enacted by the Town of Mississippi Mills, but the consultant’s evaluation of the property using the criteria commonly cited as Regulation 9/06 of the Ontario Heritage Act identified the property as being of heritage interest. The weir property is evaluated within the context of the Mississippi River Cultural Landscape in this HIA.

Two options for the proposed Enerdu Project were initially presented in public documents. Both options provided for a new powerhouse with a footprint of approximately 450 m² to house two turbines. The powerhouse is to be built on a rocky abutment on the subject property next to the existing powerhouse and on the river side of the existing buildings.

---

Public input and other considerations led Enerdu Power Systems to move forward with Option 1 only. It calls for the new powerhouse and intake canal wall to be aligned on the river side of the existing powerhouse (built in the 1980s using walls from earlier structures), with approximately 241 m² of the new building’s footprint on the bedrock shelf. A new weir with an Obermeyer gate will be constructed along the line of the existing weir upstream from the bridge (Figure 9 and Figure 10). The design of the powerhouse exists as a concept only that shows the maximum size of the structure required, its proposed location and its structural elements.

1.2 About the Report

The HIA follows the outline for Heritage Impact Assessments suggested by the MTCS in its *Heritage Toolkit* series. The format has been adjusted to address the project’s status under the Class EA for Waterpower Projects. For the purposes of this HIA, the community under study is referenced as “Almonte”. The town of Almonte was amalgamated within the new Town of Mississippi Mills in 1998 but it has a strong independent identity attached to nearly 160 years as an independent settlement, village and town. Some images are included in the main body of the report to assist with the reading of the text. Additional images are included in the Figures section.

A draft HIA was submitted to the Town of Mississippi Mills on 19 May 2014, in advance of a meeting on 27 May 2014 called by the Heritage Committee to review the report. The author of the HIA made a presentation about the HIA to the committee and answered questions with technical assistance provided by representatives of BluMetric Environmental. A summary of comments made by the Heritage Committee and the public is found in Appendix 1: Public Comments Received on the Draft HIA. Since the draft HIA was completed, a final design for the weir has been submitted to the proponent by the project engineers. The final design is addressed in the HIA.

1.3 HIA Requirement for the Enerdu Project

In February 2013, the Cultural Services Unit of MTCS requested that Enerdu Power Systems complete a Heritage Impact Assessment (HIA) to comply with the Class EA for Waterpower Projects. The Minister of the Environment (MOE) subsequently asked that the HIA be completed for MTCS for review and comment as a condition for approval of the project.

This HIA is limited to topics related to the impact of the project on cultural heritage value and conservation of built heritage and cultural landscapes. Water quality, fish habitats, archaeology, the eel ladder, existing fencing requirements, etc. are considered in other environmental assessment studies.

The HIA also responds to Enerdu’s commitment, as expressed by the Minister of the Environment in November 2013, to respect the heritage value of the Enerdu property and to ensure that the “façade and dimensions of the new powerhouse will be designed to complement the aesthetic and heritage value of the Wylie [Almonte] Flour Mill building.” Enerdu has previously said that the new powerhouse “will be low in height and will match the appearance of the existing buildings by using a stone rather than steel exterior. The new powerhouse will have a flat roof, thus minimizing any obstruction to the windows of the Wylie Flour Mill building.” Enerdu also agreed in a letter to the Town sent 11 March 2013 to

---

3 Letter from Jim Bradley, Minister of the Environment, Province of Ontario to Stephen Stirling, Town Planner, Town of Mississippi Mills, 18 November 2013.
consult “with the Mississippi Mills Heritage Committee and the Town of Mississippi Mills
during the detailed design phase of the project and in support of their application for the
necessary building permits; the goal of these proposed discussions is to arrive at a mutually
agreed-upon design for the proposed powerhouse that will satisfy the needs and concerns of
all parties involved.”

1.4 Method

The completion of the MTCS Checklist (Appendix 2) confirmed that the project would have
potential impacts on built heritage resources and cultural heritage landscapes with
recognized cultural heritage value.

The heritage consultant\(^5\) for the HIA completed the steps and products described below to
meet requirements set out by the MTCS for the HIA (letter attached as Appendix 1.)

For the project description, the HIA addresses the project described in the EA documents
submitted in August 2012 supplemented by the final drawings for the weir completed in July
2014 and technical clarifications provided by Enerdu’s environmental consulting team at
BluMetric Environmental Inc. throughout the HIA process.\(^6\) Final drawings for the major
structure required for the Enerdu Project – the powerhouse – had not been prepared. The
consultant relied on a concept design (Figure 7) and engineering drawings updated in 2014
(Figure 6) showing the size and location of the powerhouse.

The consultant also reviewed all comments received by email and letter from community
members prior to 19 June 2014, comments made by the Town of Mississippi Mills Heritage
Committee at its meeting of 27 May 2014 and comments provided by the public about the
draft HIA.

Historical research about the Enerdu property was conducted to update and amplify
information presented in the *Stage 1 Archaeological Assessment of the Proposed Enerdu GS
Expansion and Redevelopment Project, Part Lot 15, Concession 9, Now in the Town of Mississippi
Mills (Almonte), Geographic Township of Ramsay Lanark County, Ontario* (2011).

The consultant was familiar with Almonte from previous professional and personal visits. For
the HIA, one site visit on 22 January 2014 and two additional area visits on 25 March 2014
and 19 April 2014 were conducted. During the first two visits, ice and snow covered much of
the Enerdu property and the Mississippi River shoreline. On 19 April 2014 unusually high
water on the Mississippi River submerged parts of the shoreline near the existing power
plant. Previous photographs taken for the archaeological study and photographs submitted by
the public in commenting about the draft HIA have been used to complete the analysis of the
conditions along the shoreline and near the weir in the river.

A study area identified for the HIA (Figure 8) encompasses lands and waters inside a circle
formed by the roads lying closest to the Mississippi River in the vicinity of the Enerdu
Property. Because the Enerdu Project is almost exclusively concerned with construction on

\(^4\) No “building permits” are required for any components of the waterpower project.

\(^5\) The author of this HIA is Julie Harris, President, Contentworks Inc. Ms. Harris is a member of the Canadian
Association of Heritage Professionals. She is an architectural historian with 30 years of expertise in heritage
planning, cultural heritage assessments and conservation planning. She has served as a member of Ontario’s
Conservation Review Board and qualified as an expert witness in heritage evaluations for the purposes of the
Ontario Municipal Board.

\(^6\) Muriel Kim, Environmental Scientist at BluMetric, patiently answered and re-answered numerous technical
questions regarding the Enerdu Project.
the river bank and in the river, built heritage and cultural landscapes adjacent to or facing the Enerdu Project were included in the study if they also met the test of being “heritage” as discussed in Section 1.5 below.

The potential impact of a proposed project on built heritage and cultural landscapes can only be determined by examining both the nature of the project and the heritage value of the affected resources.

Cultural heritage value is embodied in heritage attributes (also known as character-defining elements.), such as the style, massing, volume, detailing, materials, finishes, and layout of a building, landscape, or structure. Some cultural heritage resources, including many cultural landscapes, carry intersecting and overlapping attributes. For this HIA, the consultant used documentation about properties formally recognized as “heritage” by the Town of Mississippi Mills, supplemented by observations of the HIA consultant, to identify heritage attributes. The heritage attributes of the cultural landscape, the railway bridge and the Almonte Flour Mill Complex were identified following an evaluation using O.Reg. 9/06 supplemented by comments from the Heritage Committee and the public about the draft HIA.

Heritage impacts considered in the preparation of the HIA include7:

- Positive impacts, such as restoration of a building or historic streetscape or the adaptive reuse of cultural heritage, including replacement of missing attributes
- Negative impacts, including:
  - Demolition of any, or part of any, heritage attributes or features;
  - Alteration that is not sympathetic, or is incompatible, with the historic fabric or appearance of a cultural resource;
  - Shadows created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings;
  - Isolation of a heritage attribute from its surrounding environment, context or a significant relationship; and
  - Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features.
- Obstruction of significant identified views or vistas within, to or from individual cultural heritage resources
- Accidental destruction of or damage to heritage attributes
- Limiting or blocking access to a heritage property where the enjoyment is related to its heritage value.

Mitigation recommendations were limited to those that are within the expertise of the consultant as an historian with expertise in heritage evaluations and conservation planning.

1.5 Identification of Affected Cultural Heritage Resources

The affected study area covers all properties located on a direct sightline with the Enerdu Project's powerhouse and weir. Within this area, and beyond, the Town of Mississippi Mills has been very active since the 1980s in conserving Almonte's heritage properties through designations, tax incentives, investments and grant applications. The Town's Official Plan (2006) states that

---

The **heritage resources** of Mississippi Mills are a defining feature of the community. They contribute to the character, civic pride, tourism potential, economic development and historical appreciation of the rural and urban areas of the Town. Perhaps more than any other element of design, our **heritage resources** define what is unique and distinct about Mississippi Mills.

Within the study area, historic buildings and structures of heritage interest or value were identified. Built heritage, as defined by the MTCS, is “one or more Significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community.” The resources may be “protected” through designation or heritage conservation easement under the Ontario Heritage Act, or listed by local, provincial or federal jurisdictions.

Known built heritage resources of relevance for the HIA include buildings designated under provisions of the Ontario Heritage Act, listed as historic buildings by the Town of Mississippi Mills, commemorated by the Historic Sites and Monuments Board of Canada or covered by a heritage easement held by the Ontario Heritage Trust or the Town, providing that the buildings are directly adjacent to the Enerdu Project. Other potential heritage resources were identified if they were directly adjacent to the proposed project and were mentioned in relevant sources, specifically the 2012 *Cultural Mapping Study*, Town planning and heritage files about properties in the study area, and a review of historic and heritage research studies. This review led to the identification of two structures that are not designated under the provisions of the Ontario Heritage Act – the former railway bridge and the Almonte Flour Mill. In total, seven properties in the category of built heritage were identified for assessment.

In its review of the draft HIA at the meeting of 27 May 2014 and in subsequent communications, the Heritage Committee did not suggest that any built heritage resources be added for consideration in the HIA.

As required for HIAs, potential cultural heritage landscapes were also identified. A cultural heritage landscape is defined in the Provincial Policy Statement (2014) as:

> a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Aboriginal community. The area may involve features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association.

Based on a review of files, plans, histories and site visits, a large cultural landscape – the Mississippi River Cultural Landscape – was identified and evaluated for the purposes of the HIA using the criteria in regulation 9/06, as described in Section 3 of the HIA. While a more thorough analysis would be advised for other types of studies, such as a heritage conservation district study or the development of design guidelines, the approach is believed to be sufficient to identify key attributes of the cultural landscape that could be affected by the Enerdu Project and to develop mitigation recommendations.

### 1.5.1 Built Heritage in the Study Area

Discrete built heritage resources, as shown in Figure 11, which could be affected by the Enerdu Project are:

- Vetter House (Menzie House)
- Old Town Hall
- Mississippi Ironworks Building (also known as the Barley Mow)
- Pinecraft Building (also known as the Victoria Woollen Mill)
1.5.2 Cultural Heritage Landscapes

To date the municipality has not formally identified any cultural landscapes within or intersecting the study area, but research conducted for the HIA identified an identified area that has been named the Mississippi River Cultural Landscape for this report. It includes waterfalls, views, bridges, public spaces, historic buildings and relics centred on the river and former mill sites (Figure 11 and Figure 12). It is a “continuing evolved landscape” that contains discrete features, such as views and historic structures that are connected to one another through history, design and setting and create a unique, identifiable sense of place. The landscape is evaluated and more fully described in Part 3 of the HIA.

1.6 Public Comments

1.6.1 March 2013

In March 2013, BluMetric responded to public comments about the proposed Enerdu project. The issues and responses with a bearing on cultural heritage are summarized in Appendix 4.

1.6.2 Draft HIA (May 2014)

1.6.2.1 Town of Mississippi Mills Heritage Committee

The Heritage Committee for the Town of Mississippi Mills provided some comments in advance of its meeting of 27 May 2014 and added comments and questions after the meeting. Key points in the meeting related to the cultural heritage impact of the Enerdu Project are included here. Some of the points made at the meeting were:

- Need for photographic documentation of historic features;
- Importance of addressing negative impacts more directly;
- Inaccuracies in the artistic rendering of the concept for the Enerdu Project powerhouse (Figure 7);
- Concerns about the level of waterflow over the weirs;
- Concerns about accidental damage during construction;
- Visual impacts on views of the railway bridge;
- Impact of the project on views from all angles, including views affected by the new weirs and the west end of the powerhouse; and
- Importance of the exact location of the new weirs and their impact on the first step of the falls.

Other points were also made in public comments as summarized in Appendix 1: Public Comments Received on the Draft HIA.

---

8 The Town of Mississippi Mills is proceeding with a Heritage Conservation District Study and Plan for Downtown Almonte that could possibly include a more comprehensive analysis of the cultural landscape characteristics of the core of Almonte.

1.6.2.2 Public Comments on the Draft HIA

The public was invited to submit comments about the draft HIA before 19 June 2014. With few exceptions, people who chose to comment on the draft HIA were opposed to the project. With respect to cultural heritage concerns (summarized in Appendix 1: Public Comments Received on the Draft HIA), comments most often addressed the following points:

- that the project would have a negative impact on views of the river and the falls due to the scale, materials and location of the powerhouse, the intake canal wall and the new weir
- that more attention be paid to the potential impact of construction on the structural stability of adjacent heritage buildings
- that the draft HIA’s interpretation of the impact of the new power facility on the Mississippi River Cultural Landscape was incorrect should take into account the more recent history of the area for residential, retail and tourism uses.

Comments also asked for the draft HIA to address the appearance of the powerhouse from all viewpoints. Individuals also expressed concern about the impact of construction activity and the final project on tourism in the community. Some people also asked that the HIA include a full cultural landscape study as a prelude to identifying impacts of the Enerdu Project. A full list of comments has been submitted under separate cover to the MTCS as part of the documentation of the EA work.

1.6.2.3 MTCS Comments

In a letter of 18 June 2014 and a telephone conversation on 24 June 2014 with the Cultural Services Unit of the MTCS, the author agreed that the final HIA would include the following changes and additions:

- Include the results of O. Reg. 9/06 evaluations and Statements of Cultural Heritage Value (SCHV) for the Bridge, the Almonte Flour Mill Complex and the Mississippi River Cultural Landscape in the text of the report, without legal boundaries identified;
- Include Statements of Cultural Heritage Value for designated properties based on information provided by the Town of Mississippi Mills;
- Move the Almonte Flour Mill Complex evaluation to the built heritage section of the report;
- Use terms from O. Reg. 9/06 in descriptions of heritage resources when those terms are appropriate;
- Address the final design for the weir and clarify how it will change that the river bed;
- Include any additional information that might be received from further input from the Ontario Heritage Trust;
- Include a recommendation to record and document the flume prior to construction;
- Use a consistent set of impact types.

1.7 Update from the Draft HIA

Prior to work on the HIA, public feedback on the design of the weir had already been received that was used to re-examine the exact location of the weir. During the period in which the HIA was underway, the designs for the weir were completed. The final HIA addresses the updated design.
2 Historical Development and Site Analysis

2.1 Enerdu Property

2.1.1 Description

The Enerdu Property (Figure 2) is located at 11 Main Street with a legal description of Part Lots 2 and 3 on Plan 26R473, Town of Mississippi Mills (formerly Township of Ramsay), County of Lanark. The proponent owns the riparian land along Main Street in the project area; confirmation of ownership of the river bed is pending.\[10\]

The parcel on Main Street, referenced in this report as the Almonte Flour Mill Complex, is irregular in shape and slopes steeply from the street level to the shore of the Mississippi River. It is bounded by Main Street on the north, a former railway bridge and the Mississippi River on the east (Figure 1 and Figure 2), and the Mississippi river to the south and west. A small peninsula composed of rock fill with some vegetation sits on the edge of the property in the river. The neighbourhood near the property includes residential, manufacturing and commercial uses (Figure 13). The Mississippi River Power Corporation hydroelectric generating station is located downstream about 100m from the Enerdu property.

The areas near and on the river that supported power production for the mills at 11 Main Street include the intake area on the southwest side of the railway bridge, the tailrace section coming out of the powerplant, and the weir that provides some control over water levels on the northeast side of the bridge. The weirs create a dynamic landscape that depends on the level of water (Figure 14 and Figure 15). The concrete overflow weir for the intake is fully exposed during periods of low water; during periods of high water leaks in the flashboards allow water to flow over the top. The existing weir associated with the Enerdu Project is a low structure surmounted by wooden flashboards (Figure 16). In periods of low water, the flashboards are visible and a small portion of the riverbed with its rock shelves is exposed between the weir and what is known as the Small Island (Figure 17).

Four structures (Figure 17) are currently located at 11 Main Street: a stone building that was erected as a rolling mill around 1886 and adapted into condominiums and commercial spaces between 2006 and 2009 (Figure 18); a metal-clad structure that is part of the condominium development that sits on a portion of the footprint of a former grist mill that had been on the site since 1842; a modern storage garage; and a powerhouse and concrete intake canal set almost parallel to the shore. The powerhouse appears to have been constructed in the 1980s on the site of the grist mill’s original flume.\[11\] Its northwest wall is the former stone wall of the grist mill; the lower part of its southeast wall is part of a concrete flume structure. Two turbine intakes and two pit-type Kaplan turbines are located in the powerhouse.

Main Street slopes down in a northeast to southwest direction. Looking southwest down the hill, the powerhouse cannot be seen. Looking up the street from the corner of Mary and Main streets, the roof of the existing powerhouse and parts of the cover of the intake are visible, depending on the angle. From the Main Street Bridge and along the opposite shore, the entire riverfront portion of the property is visible.

\[11\] Date provided by BluMetric, to be confirmed by Enerdu.
2.1.2 History

As explained in the *Stage 1 Archaeological Assessment*, the early history of the subject property is complicated by the division of the original parcel of land into town lots and historic references that do not clearly distinguish the "mill" as an operation from the "mill" as a building. For most of its industrial history, however, it was owned by members of the Wylie family who were among the leading industrialist in milling and textile production in Almonte. From the 1840s to the 1980s, grain milling was done on the property – first by a grist mill, then a roller mill and later by a flour mill.

The grist mill was likely built around 1842 by Edward Mitcheson, who had already purchased 50 acres on the north side of the river registered as 'Victoriaville'. The mill property was purchased in the early 1850s by brothers J.R. Wylie and James H. Wylie who built a new mill on the property under the business name J. & J. Wylie. In 1852, the unfinished grist mill was "gutted" by fire and the previously existing mill was destroyed. Four years later, James H. Wylie inherited the mill from his brother.

The Walling map of Almonte dating from 1863 shows the scope of industrial development in Almonte, including a single building marked as "Wylie's G.M." located immediately southwest of the rail line crossing the river and another building across the road, presumably owned by the same family. A "Dam" and "Weir" on the other side of the railway bridge are also shown on the plan. The "Dam" was part of the Thoburn Mill's works. It served as a weir to direct water to the mill and was eventually expanded into a weir for the Almonte Flour Mill.

By 1866, the Wylie family was operating a saw mill, shingle mill and flour mill on the property. In that year, they leased the flour mill to another operator, Alexander McLean, but continued to operate the saw mill and shingle mill. In 1869 Wylie's dam was destroyed by spring floods, but was rebuilt in 1870. According to the local newspaper, "the new dam, much larger and stronger than the old one, has been built by Mr. J. C. Stevens, at a cost of about $2,000. It was completed a few days ago, and "grinding" is again going on as usual."

An 1870 plan shows the "J. Wylie Grist Mill" as consisting of two attached structures, with the larger structure extending into the river. According to the 1871 census returns for "Industrial Establishments", the water-powered mill leased to McLean had 12 workers to process "wheat, oats, peas, barley and all farm produce" for "flour and meal and all such." In the period that McLean leased the mill, it was commonly known as the Wylie mill. The mill is un-named mill in the key plan for the 1879 fire insurance plan updated to 1884; no detailed sheet covers the mill (Figure 19). The waterpower technology used by Wylie and McLean at this time was not determined during the research for the Stage 1 Archaeology or for the HIA, but based on the evidence of technological changes in many other grist mills in Ontario, it is possible that the mill moved from an overshot waterwheel to a horizontal turbine type of technology at some point, possibly even during McLean's time. Images from this period

---

13 Lanark Legacy:136.
14 LAC has a copy, but the resolution is bad.
15 *The Almonte Gazette*, Saturday, August, 27, 1870.
16 The Stage 1 Archaeological Assessment report also references the 1871 census as possibly providing a description of the Wylie mill in the Industrial Establishments schedule of the census. It is not clear, however, that the record pertains to the Wylie mill so it has not be included here in the HIA report.
17 As quoted from the LAC records in the Stage 1 Archaeological Assessment:17.
depict the arrangement of the buildings in the 1860s and 70s (Figure 20 and Figure 21).

Around 1886, James H. Wylie took over the mill again. In that year he “built the large roller mill on the site” managed by his son James W. Wylie. The timing of the installation of the new technology was likely related changes in flour regulations in Canada that made it possible for millers to label and price refined white flour. A roller mill could produce finer flour through processing by means of porcelain rollers, rather than grind stones, and by using purifiers, including screens and blowing air through the processed flour. In places where waterpower was unavailable or unreliable, steam engines were installed to power the roller mill. Roller mills were normally installed in multi-storey structures to support the alignment of power systems and machinery, including the purifiers. Many mills in Ontario, including the Wylie mill, kept traditional grist mills and roller mills working side by side for a few decades. Due to the amount of power required, it is also likely that Wylie replaced any aging power machinery with a new turbine. Until the mid 20th century, however, the flume ran parallel to the grist mill and rolling mill; water flowed into the basement of the grist mill and out the tailrace. The 1889 fire insurance plan updated to 1902 includes an inset for the “Almonte Roller Mills” belonging to “Wylie & Co.” showing the configuration (Figure 22 and Figure 23). From the 1930s into the 1950s, it was referenced as the Almonte Flour Mill and less frequently as the Wylie mill.

In 1899, the J.W. Wylie roller-process flour mill was listed as one of Almonte’s largest industrial concerns, along with the “extensive” Thoburn Mill, the Young Bros. Foundry Machine Works and other industries. To encourage industry, the town was considering the purchase of the electrical plant and water works. In 1903, the success of the flour mill appears to have allowed the family to incorporate James H. Wylie Limited as a manufacturer of woollen and flannel goods.

According to research conducted for the archaeology study, fire damaged the mill on at least two occasions – 1908 or 1909 and 1938. The 1908/9 fire gutted the interior and roof of the roller mill and certainly damaged the grist mill (Figure 24). The rolling mill was reconstructed with a new roof shape (Figure 25, Figure 26 and Figure 27). The extent of the damage from the 1938 fire has not been determined for this report (Figure 28).

The 1950 fire insurance plan located at Carleton University Library depicts six buildings on the property, as well as a concrete flume extending from the bridge to the end of the basement of the grist mill and a tailrace. The grist mill is shown as a three-storey building; one storey in stone and two storeys in wood. Two wooden storage buildings are shown on the street side of the rolling mill. A one-storey office is attached to the west side of the grist mill and a feed storage building is attached to it. Both of these buildings are located in line with the shore and have since been demolished. Based on the notations of the fire insurance plan, it appears that

---

19 Leung discusses the importance of the new regulations in Grist and Flour Mills in Ontario: 135.
20 One example of many articles and comments about the quick adoption of roller mill technology can be found in: Dominion mechanical & milling news: [Vol. 7, no. 2 (Nov. 1886)] Toronto: C.H. Mortimer, [1886]:3.
21 For a good description of the technology of roller mills in the 1880s see Calbourne Mill Museum, Isle of Wight website available online at www.iwhistory.org.uk/crm/, accessed 25 February 2014.
the owners had already constructed a one-story extension to the former grist mill that sat on piers above the flume (Figure 29). An open concrete flume is shown in the location of the present flume.

In June 1974, a train accident led to railway cars falling off the bridge on to the storage buildings on the street side or to a building erected between the mill and the bridge (Figure 30). The storage buildings attached to the rolling mill may have been demolished very soon after the accident.

At some point in the 1980s, a new powerhouse was constructed for housing twin turbine generators, possibly during the time it was owned by Maple Leaf Mills, which operated or leased out the buildings as the Maple Leaf Mills and the Ault Dairy. The foundation of the powerhouse consists of a mixture of stone, cast-in-place concrete walls and columns. The north wall is a thick stone wall that was the southeast wall of the grist mill where a water-wheel pit was found. The south wall (the river side) is a concrete wall that was part of the flume. A steel gate is located above the generators on the east wall.

Enerdu Power Systems purchased the property in 1988. In 2003 the Mississippi River Power Corp, which owned power properties downstream, hired Cleland Jardine Engineering Ltd. to carry out a pre-purchase review of the Almonte Flour Mill property, but ownership was retained by Enerdu Power Systems. Under the control of Enerdu Power Systems, the entire property has been undergoing redevelopment through a combination of adaptive reuse, preservation, demolition and new construction. The planning application to adapt the stone mill structure into condominiums started in 2006; most of the work occurred in 2008 and 2009, including the demolition of sheds to the southwest of the main building. The adaptive reuse element is the conversion of the former rolling mill into condominiums with preservation of masonry, openings and wood structural components.

2.2 Broader Study Area

The study area is the main context for determining the affects that the proposed development and expansion project will have on built heritage and cultural heritage landscapes. It encompasses a set of historic buildings, a bridge, river features and views that intersect with or are fully within the boundaries of the study area.

The HIA study area covers a broader zone (Figure 8). It extends to the Bridge Street Bridge (the southeast boundary) and the Main Street Bridge (the northeast boundary). The study area includes all buildings and properties that face or back on to the Mississippi River between the bridges, as well as buildings along Main Street located near the subject property.

2.2.1 History

The area is located in the core of Almonte, a town within Ramsay Township that was surveyed in 1821. Settlers arrived in the area by scow along the Clyde and Mississippi rivers or by overland trails that developed into mapped roads. One of the early settlers was David Shepherd, who received the Crown patent for 200 acres at the present site of Almonte on condition that he erect a sawmill and grist mill. His patent was soon obtained by Daniel

---

26 Most of this description is taken from the Pre-purchase Inspection of the property undertaken for Mississippi Power Corp in 2003 by Cleland Jardine Engineering Ltd. The file is in: Town of Mississippi Mills, Planning Files, “P10 Enerdu Power/Mike Dupuis (11 Main St. East) B.P. #06-305.
27 Town of Mississippi Mills, Planning Files, ”P10 Enerdu Power/Mike Dupuis (11 Main St. East) B.P. #07-292.
Shipman of Brockville who built a sawmill in 1821, a grist mill in 1822, and a distillery soon thereafter. The mills were possible due to falls and rapids along the Mississippi River that had a combined drop of about 20 metres. The same power source provided an ample supply of energy for other mills and industries in the 19th and early 20th centuries. The settlement’s name changed, in sequence, to Shepherd’s Falls, Shipman’s Mills, Ramsayville, and Victoriaville, before Almonte was adopted in 1855.28

The population of Almonte and the Ramsay Township grew steadily in the early 19th century, with the arrival of approximately 30 families from England, Ireland and Scotland, followed by over 100 Scottish families arriving as part of the Lanark Society Settlers. Almonte became the principal settlement in the township, a role reinforced by the arrival of the Brockville & Ottawa Railway in 1858 (which built the railway bridge that is located adjacent to the Enerdu property) and the growing importance of its industrial milling operations.

Almonte was the centre of an important woollen milling industry during the last half of the 19th century and the first half of the 20th century. The industry’s heritage survives in historic industrial structures and residences, ruins from various eras, and street alignments (Figure 12).

2.2.2 Mississippi River

The study area is centred on the Mississippi River flowing in a generally northeast to southwest direction. It includes two waterfalls – the Bridge Falls (also known as Upper Falls), where the Enerdu weir is located, and the Number 2 Falls, used by the Mississippi River Power Corporation for a hydroelectric production. The combination of natural rock-shelf formations and the power weirs has created ponds above each of the falls (Figure 31 and Figure 32). The aesthetic beauty of the area, as well as the numerous industrial and historic buildings, structures, and relics that contribute to the identity and character of the river, can be easily appreciated by viewing the hundreds of images that appear online.29

The Mississippi River flowing through Almonte is known for its beauty in all seasons. The water drops about 20 vertical metres between the headpond and the Bay below the town’s main island. Prior to settlement of the areas, First Nations, explorers and early settlers portage around the falls on paths that are now Main Street (on the west side of the river) and Mill Street (on the east side of the river.)

The harnessing of Almonte’s waterfalls on the Mississippi River began in 1821 when Daniel Shipman built a sawmill where the Old Town Hall is located at the top of the “Grand Falls in the Mississippi.”30 Almonte’s textile mills began in 1851 with the establishment of the Ramsay Woollen Cloth Manufacturing Company in Ramsayville. While the small island near the Bridge Falls has been changed by the construction of previous weirs, the railway bridge and a more recent pedestrian pathway, an archaeological assessment of the area provided no indication that the appearance of the Bridge Falls were altered by past works. Power developments upstream from Almonte have changed the natural flow of water.31

28 Lanark Legacy:134.
29 See, for example: www.megapixeltravel.com/2011/04/upper-falls-almonte-ontario/.
30 Lanark Legacy:127. The date in this source is given as 1823.
31 Enerdu GS Expansion and Redevelopment Environmental Report:18
3 Area Heritage Inventory (Built Heritage and Cultural Landscapes)

3.1 Built Heritage and Cultural Landscapes

The Enerdu Project is within direct view of five designated heritage buildings in the Town of Mississippi Mills – Vetter House (Menzies House), Old Town Hall, Mississippi Ironworks Building (also known as the Barley Mow), the Pinecraft Building (also known as the Victoria Woollen Mill) and the Thoburn Mill. The railway bridge and Almonte Flour Mill Complex are evaluated in the HIA. The Mississippi River Cultural Landscape is also considered and evaluated in the HIA.32

3.2 Evaluation of Cultural Heritage

Ontario Regulation 9/06 is normally used to evaluate the cultural heritage value of built heritage resources and cultural landscapes. The criteria describe three types of heritage value: design value or physical value, contextual value and historical or associative value. Only those resources that have not been previously evaluated by the Town of Mississippi Mills are evaluated in this HIA, namely the former railway bridge and the Almonte Flour Mill Complex.

3.2.1 Criteria

3.2.1.1 Design Value or Physical Value

A property may have design value or physical value when it:

i) is a rare, unique, representative or early example of a style, type, expression, material or construction method; or

ii) displays a high degree of craftsmanship or artistic merit; or

iii) demonstrates a high degree of technical or scientific achievement.

3.2.1.2 Contextual Value

A property may have contextual value when it:

i) is important in defining, maintaining or supporting the character of an area; or

ii) is physically, functionally, visually or historically linked to its surroundings; or

iii) is a landmark.

3.2.1.3 Historical Value or Associative Value

A property may have historical or associative value when it:

i) has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community; or

ii) yields, or has the potential to yield, information that contributes to an understanding of a community or culture; or

iii) demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.

32 The Ontario Heritage Trust confirmed that it holds no heritage easements on any of these properties.
3.2.2 Heritage Attributes

Heritage attributes are derived from an analysis of heritage value and a consideration of the physical characteristics of the resources.

3.3 Built Heritage Discussion and Evaluation

3.3.1 Designated Built Heritage

The heritage attributes for the five designated buildings are drawn from information and statements of cultural heritage value (or their equivalents) included in their respective town files. The heritage attributes for the bridge and the two landscapes are presented here using a tabular format that links heritage values to physical attributes. All the built heritage resources are shown in Figure 11.

3.3.1.1 Vetter House (Menzies House)

Heritage Value: The Vetter House at 80 Queen Street is one of Almonte's oldest surviving homes (Figure 33). It was likely constructed by John Menzies around 1848. He held a number of political offices, including Registrar of North Lanark, and operated a store from the basement level of the house leading out to the river. Architecturally, the house is described in the designation by-law as being compared to "le modèle québecois", a French-Canadian style not commonly found in Ontario. The heritage by-law references its architectural features and the relationship of the house and the Mississippi River.

3.3.1.2 (Old) Town Hall

Heritage Value: Almonte’s Town Hall was designated as being of architectural and historical value or interest under the provisions of the Ontario Heritage Act on 12 December 1978 (Figure 14 and Figure 34). Located at 14 Bridge Street in Almonte, the (Old) Town Hall Building was constructed in 1885 by George Willoughby to house administration offices, the council chamber, police cells, fire hall, public library, mayor’s office and the auditorium used for public meetings and cultural events. It is constructed from local stone, mixing Romanesque and Gothic Revival styles, “to command attention from all directions in the town.” In addition to its lively silhouette and the quality of its masonry, it is notable for its polychromatic slate roof and its concert hall with a wooden vaulted ceiling. In 2008, the Town received a provincial grant for $1.5 million for exterior restoration work.

3.3.1.3 Victoria Woollen Mill

The Victoria Woollen Mill (designated as the Pinecraft Building) was designated as being of architectural and historical value or interest by the municipality under the provisions of the Ontario Heritage Act in June 1978. It is one of Almonte’s earliest textile mills. Located at 7

33 By-Law Number 25-1978
35 Town of Mississippi Mills, Planning Files, “Bridge Street 14 Town Hall”.
36 Notes provided in association with the Mississippi Mills Doors Open 2010: https://maps.google.ca/maps/ms?ie=UTF8&oe=UTF8&msa=0&msid=111712666617919339763.0004877204192.5e0db844
37 Town of Mississippi Mills, Planning Files, "Bridge Street 14 Town Hall".
38 By-Law Number 16-1978
Mill Street, it was built by James Rosamond in 1857 as part of the Rosamond Woollen company complex. It was the first mill to use the power from the Number 2 falls, located downstream from the Almonte Flour Mill.

A fire in August 1922 damaged the upper portions of the building, which were rebuilt with local stone of a slightly different colour than the stone on the older parts of the building. In 1993, the building was completely renovated, with some elements restored. The original stonework, wooden beams and window sills are intact. Renovations included an addition to the back and large balconies overhanging the falls. In 2000, an elevator tower and security intercom were added, along with a contemporary glass and steel mezzanine and roof-top deck. Today the building is home to a restaurant, art gallery and condominiums.

The Ontario Heritage Trust plaque, “The Rosamonds in Almonte” is located at the Victoria Woollen Mill and commemorates James Rosamond and his sons’ roles in the development of the woollen industry in the Mississippi River valley during the 19th century.

3.3.1.4 Thoburn Mill

On 19 November 2013 the Heritage Committee of the Town of Mississippi Mills recommended that the Thoburn Mill be designated as a heritage property under the Ontario Heritage Act. Located at 83 Little Bridge Street, Thoburn Mill was originally constructed in the 1870s by a local textile merchant, MP William Thoburn. The Mill was rebuilt following a fire in 1918, and continued to operate as a woollen mill until 1950s. At that time, the turbines and other machinery was removed, however some parts remain in the buildings’ current gardens. In 2000, the Mill was redeveloped for artist studios, offices and apartments (Figure 35).

The reasons for the designation references its “rich mix of architectural features and styles that reveal its varied past. Most notable is the waterfront site itself, the large windows, and the large glassed in terrace and stairwell. Another interesting feature is the presence of large white lettering along the former rail bridge reading “WM THOBURN’S WOOLEN MILLS”.

3.3.1.5 Mississippi Iron Works

The Mississippi Iron Works, located at 79 Little Bridge Street (Barley Mow building) was designated as a municipal heritage property in February 1986. It consists of a stone structure that is a “good example of the small manufacturing buildings in the latter half of the 19th century and is one of the very few which has survived in Almonte.” A statement of significance prepared for the designated property notes its architectural features, stone construction and its “very visible and very picturesque site on the 'banks of the Mississippi' thereby highlighting the early manufacturing history of Almonte.” It was rehabilitated as a restaurant in 2006.

The Mississippi Iron Works building is set tight against the river; the property fronts on Little Bridge Street but the building is set well back from the street on the river. The existing Enerdu powerhouse sits across the river, with its east wall located about 54 metres from the east shore of the river and the Mississippi Iron Works building; the east wall of the new powerhouse would be located about 40 metres from the east shore of the river and the front...
of the Mississippi Iron Works building.

3.3.2 HIA Evaluations

3.3.2.1 Almonte Flour Mill Complex

3.3.2.1.1 Background and Context

The Almonte Flour Mill, which began its industrial life as the location of the Wylie grist mill, was used for industrial operations – waterpower, grist milling, roller milling and baking – for almost 140 years. The complex extends beyond the boundary of the land-based property to relics associated with water power (Figure 17).

3.3.2.1.2 Ontario Regulation 9/06 Evaluation of the Almonte Flour Mill Complex

The property has design value or physical value because it is:

i. Rare, unique, representative or early example of a style, type or construction method;

Yes. The rolling mill section is an early and rare example of a flour mill.

ii. Displays a high degree of craftsmanship or artistic merit;

Yes. The rolling mill section displays craftsmanship and artistic merit in rough stone masonry and organization.

iii. Demonstrates a high degree of technical or scientific achievement.

No.

i. Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;

Yes. The rolling mill section, the remains of the original mill and the remains of the flume are closely associated with the Wylie family that was important in Almonte’s industrial development and in its local political and administrative history.

ii. Yields, or has the potential to yield, information that contributes to an understanding of a community or culture

Not applicable.

iii. Demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.

No. The design and builder have not been identified.

i. Is important in defining, maintaining, or supporting the character of an area;

Yes. The rolling mill and the flume contribute to the historic industrial character of Almonte and to an understanding of the importance of waterpower and milling to the community’s development.

ii. Is physically, functionally, visually or historically linked to its surroundings;

Yes. The rolling mill and flume are part of a set of extant structures along the Mississippi River related to the industrial history of the community. The rolling mill’s value, historically, was entirely connected to its location on the Mississippi River, a connection which continues to the present.
iii. Is a landmark.

Yes. The rolling mill section is visible due to its height and to its location on the river across from areas enjoyed by residents and visitors. The flume is not necessarily understood as an integral part of the complex, but it is also visible in all views of the complex. The complex appears in many photographs of Almonte.

Result: The Almonte Flour Mill Complex is a heritage resource for the purposes of the HIA.

3.3.2.1.3 Statement of Cultural Heritage Value (for HIA purposes)

The heritage value of the Almonte Flour Mill Complex resides in its long industrial history, its association with the Wylie family and its aesthetic value due to the rolling mill’s stonework, massing and form. Derived from this, its heritage attributes are:

- The rolling mill, including its form, scale, stone construction and pattern of openings on all sides;
- The rolling mill’s position, which is set very close to the Mississippi River with the flume running along the river edge;
- Remnants of previous structures on the site dating from the period of the property’s use as a grist mill and rolling mill, such as the stone walls of the former grist mill, ruins related to the cribwork sluice, 19th- or early 20th-century power and milling equipment, and concrete retaining walls of the flume;
- The visibility of the rolling mill from various views across and along the Mississippi River that reinforce the historic character of the town and contribute to a stronger understanding of its geography;
- Views that highlight the importance of waterpower in the operation of the mill;
- The striking view of the Almonte Flour Mill from across the Mississippi River and from the Number 2 falls.

3.3.2.2 Railway Bridge

3.3.2.2.1 Background and Context

The former railway bridge was constructed in 1858 for the Brockville to Ottawa Railroad. It includes a seven-pier section with stone and concrete abutments crossing the Mississippi River, a viaduct sections for the approach from the south across the Small Island and its channel, and a high-level crossing of Little Bridge Street toward another viaduct. It has not been designated by the Town of Mississippi Mills.

The railway line became part of the Canadian Central Railway in 1878; converted to standard gauge in 1880; and amalgamated into the Canadian Pacific Railway (CPR) in 1881. 43 It initially carried timber out of the forests of Eastern Ontario but it also became an integral part of the textile economy of Almonte.

The widest crossing of the Mississippi River at Almonte begins next to the Almonte Flour Mill and extends from a stone abutment across seven stone piers to the abutment on the Small

Island (Figure 36). The heavy stone piers were originally protected from ice by cribbing that has been replaced by metal sheeting. The current bridge structure and deck is made of concrete, which replaced the original timber structure. The stone piers that have been repeatedly reinforced and repaired with concrete.

The Bridge is noted as part of the town’s historic landscape in the interpretive panels on the Riverwalk and as a topic in most local histories. An Ontario Heritage Trust plaque, “The Founding of Almonte”, is located on the Old Town Hall property to commemorate the establishment of several woollen mills and the construction of the railway line to Brockville that stimulated the economic growth of Almonte in the 1850s.44

3.3.2.2.2 Ontario Regulation 9/06 Evaluation of the Bridge

The property has design value or physical value because it is:

i. Rare, unique, representative or early example of a style, type or construction method;

Yes. It is an early and rare example of a railway bridge in the community.

ii. Displays a high degree of craftsmanship or artistic merit;

No. The Bridge was planned with limited technical requirements and financial resources. As such it was designed as a utilitarian structure that displayed the usual degree of craftsmanship for its type.

iii. Demonstrates a high degree of technical or scientific achievement.

No. No functional or technical achievements can be assigned to the Bridge.

i. Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;

Yes. The Bridge is directly associated with the Brockville to Ottawa Railroad. The railway’s construction and history has relevance for understanding the historical and physical development of Almonte, and is associated with the growing importance of the textile industry.

ii. Yields, or has the potential to yield, information that contributes to an understanding of a community or culture

Not applicable.

iii. Demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.

No. There is no known designer or builder of significance to the community.

i. Is important in defining, maintaining, or supporting the character of an area;

Yes. The Bridge is part of a former railway right-of-way that cut through Almonte. Since it is located in the core of the community, it also contributes to a stronger understanding of the town’s geographical development.

ii. Is physically, functionally, visually or historically linked to its surroundings;  

**Yes.** The Bridge helps define the sections of the Mississippi River flowing through Almonte. The town’s urban geography, road networks and shape and location of adjacent structures is related to the location of the Bridge.

iii. Is a landmark.  

**Yes.** The Bridge is highly visible in the community.

**Result:** The Railway Bridge is a heritage resource for the purposes of the HIA.

3.3.2.2.3 Statement of Cultural Heritage Value (for HIA purposes)

For the purposes of the HIA, the heritage value of the bridge resides in its physical structure, its associations with Almonte’s urban and economic history, and its high visibility from various views across and along the Mississippi River that reinforce the historic character of the town and contribute to a stronger understanding of its geography. Derived from this, the heritage attributes of the bridge are:

- All original materials, including its stone piers, steel work, timber decking, concrete and stone abutments, and viaduct sections
- Views to the bridge from all directions along the Mississippi River and adjacent bridges and streets.

3.4 Mississippi River Cultural Landscape

Since the Town of Mississippi Mills has not completed a cultural landscape survey of the community, the cultural landscape described here was identified for the purposes of the HIA only.

Cultural landscapes can be organized into categories that help determine how their cultural heritage values can be conserved and, related to this, how changes can affect heritage values.45 The Mississippi River Cultural Landscape, which is centred on a former industrial town landscape, falls into the category of Evolved-Continuing (also known as an evolved-dynamic cultural landscape).46 Its discrete industrial, residential and institutional elements have changed over time in response to shared events, such as the technological and economic imperatives of small-scale textile manufacturing and local grain-milling operations.

3.4.1 Background and Context

Almonte’s history, geography and artistic productions demonstrate that the Mississippi River is the geographic spine of the community. Many visitors and artists are attracted to the core of the Almonte to enjoy the sights and sounds of the Mississippi River, its structures and relics, and its waterfalls and rapids, especially the Bridge Falls, its rocky terraces and the Number 2 falls as viewed from the Main Street Bridge and the Riverwalk on the east bank of the river; the Enerdu property is part of these views (Figure 1, Figure 14, Figure 32 and Figure 35).

The river’s historical, social and cultural associations, as well as its influence on Almonte’s

---

45 For further information about cultural landscapes, see the MTCS Heritage Toolkit PPS InfoSheet at: www.mtc.gov.on.ca/en/publications/Heritage_Toolkit_Heritage_PPS_infoSheet.pdf

urban geography, bring it into the category of being a cultural heritage landscape. In the 19th century, the presence of the Mississippi River allowed Almonte to promote itself as a town with “almost unlimited water power.” Over time, all of the industries in Almonte became difficult to sustain financially for local, national and international reasons. Water power remained part of the community's economic fabric, however, with the development of a stand-alone hydroelectric plant and the use of local power sources. The Town’s Official Plan notes that “the former Town of Almonte ... developed because of ‘water power’ which was used to drive the commerce and manufacturing sector in town which supported the local economy.”

In the late 20th century and into the present, numerous industrial, residential and institutional buildings related to the former industrial landscape, including the Rosamond Woollen Mill, the Old Town Hall and many private residences, have been rehabilitated or restored with support from the public, the Town, other levels of government and property owners.

The cultural landscape is post-industrial because most changes that occur today are the result of non-industrial activities, such as residential, retail and office uses. Nonetheless, it is a combination of historic and continuing industrial elements, especially power works, the help establish the character of the landscape as “continuing” or “living” rather than “relic”. Properties associated with its industrial history extend along both sides of the river from Queen Street, just above the Bridge Falls near the Enerdu Property, to the end of Mill Street and along Mary Street toward the Rosamond Woollen Mill. They encompass historic industrial buildings, residences, institutional structures, bridges, water features, structures and relics associated with industrial operations that took advantage of water power for industrial purposes throughout the town (Figure 12 and Figure 37). Downtown Almonte is popular for visitors from Ottawa and it is a popular place for retirement and for people working in the west end of Ottawa. Some formerly industrial spaces are now occupied by new buildings, parking lots and small public spaces. In addition, a pathway system (the Riverwalk) has been developed to link properties and highlight views of the Mississippi River and its historic features. Residents and visitors have also used the river in the area to the east of the railway bridge for canoeing and swimming for generations.

Evidence of the importance of the Mississippi River’s industrial landscape and in the singular importance of woollen mills, can be seen in the work undertaken by the community at large and by the Town of Mississippi Mills to protect and interpret cultural heritage resources associated with the area’s industrial past. Owners have been encouraged to rehabilitate former mill buildings, including the Almonte Flour Mill and the Rosamond Mill, for new uses. Properties with views of the river are favoured by homeowners and businesses.

The importance of the Mississippi River as a scenic cultural resource was also highlighted in the 2012 Cultural Mapping Study undertaken by the Town of Mississippi Mills. It identified many places to be of cultural or natural heritage value in Almonte, including:

- Mississippi River
- Waterfalls of the Mississippi River
- Almonte’s Old town Hall
- Views and vistas

In responding to questions about the places that they preferred to show visitors, residents put the Mississippi River, the waterfalls, Almonte’s downtown and heritage buildings located near

47 The concept of a “Downtown Waterfall” landscape as a subset of the broader industrial landscape is considered in: Grosset, “Cultural Heritage and Enerdu.”

3.4.2 Ontario Regulation 9/06 Evaluation of the Mississippi River Cultural Landscape

**The property has design value or physical value because it is:**

1. Rare, unique, representative or early example of a style, type or construction method;  
**Yes.** It is unique to Mississippi Mills and appears to be relatively rare in the province due to the presence of so many early 19th-century buildings, the continuation of street patterns, the intimate physical relationship between the river's geography and the town's development, and the presence of industrial ruins.

2. Displays a high degree of craftsmanship or artistic merit;  
**Yes.** The landscape is aesthetically pleasing in all seasons, including industrial buildings that were utilitarian at the time of their construction but are now appreciated for their masonry construction, stonework, textures and proportions.

3. Demonstrates a high degree of technical or scientific achievement.  
**No.**

1. Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;  
**Yes.** As a whole, the cultural landscape clearly demonstrates the historical evolution of a town around milling operations in the mid 19th century.

2. Yields, or has the potential to yield, information that contributes to an understanding of a community or culture  
**Yes.** The cultural landscape contains many resources, such as worker's housing, that could be studied in more detail to understand Canada's social history.

3. Demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.  
**No.**

1. Is important in defining, maintaining, or supporting the character of an area;  
**Yes.** The cultural landscape helps define the core of the former town of Almonte.

2. Is physically, functionally, visually or historically linked to its surroundings;  
**Yes.** The cultural landscape is historically linked to the region's economic, social and cultural history, and the landscape plays an important role in the Town of Mississippi Mills.

3. Is a landmark.  
**Yes.** It is well-known as a destination to visitors, it represents a focal point for artistic production, and it is a key element in the community's identity.

**Result:** The Mississippi River Cultural Landscape is a heritage resource for the purposes of the HIA.
3.4.3 Attributes

For the purposes of the HIA, the Mississippi River Cultural Landscape extends along both sides of the river from Queen Street, just above the Bridge Falls near the Enerdu Property, to the end of Mill Street and along Mary Street toward the Rosamond Woollen Mill. It encompasses historic industrial buildings, residences, public spaces, institutional structures, bridges, water features, structures and relics associated with milling and waterpower in the past and recent times, as well as changes related to Almonte’s transition away from its industrial past.

The heritage value of the Mississippi River Cultural Landscape resides in its unique combination of historic structures, its topography and geography, the presence of the Mississippi River and its waterfalls, the manner in which historic buildings addressed the physical context by adjusting their footprints to the existing landscape, the views along and across the river that allow appreciation of the core part of the landscape on either side of the former railway bridge, and its historical development as an industrial centre focused on the textile industry, but not exclusively.

Derived from this, its heritage attributes are:

- The underlying topography that reflects the drop in elevation from the Upper Falls to the basin
- The continuing presence of buildings, structures and ruins from almost every decade between the early 19th century to the early 20th century associated with the evolution of Almonte's industrial history as the location of sawmills, grist mills, a rolling mill, textiles mills and manufacturing enterprises that used waterpower from the Mississippi River
- The vernacular approach to the design and placement of buildings and structures in the landscape to take advantage of topography and other natural conditions for functional requirements, such as access to waterpower and cooling by prevailing winds
- Construction using locally available stone and wood
- Evidence of industrial activities and the use of the river as a source of waterpower
- The physical relationship between these resources and the Mississippi River
- Views that highlight the close proximity of the industrial concerns to each other and to the Mississippi River from buildings and public spaces, including views across and along the river from public spaces that favour these views
- The presence of the railway bridge
- The variation in landscape surfaces, edges and forms due to old industrial buildings, structures and ruins being left in place
- The materiality of the industrial landscape, including stone, steel and concrete visible in buildings, structures and ruins
- Views of the falls and rapids that demonstrate the power of the Mississippi River
- Seasonal variations in the appearance of the river resulting from changes in waterflow
- The contrast between residential and industrial riverbank areas
- The commanding presence of the Old Town Hall at the northeast end of the landscape
- The rocky outcroppings and riverbed that serve to highlight the contrast between the water and its channel
- Recreational enjoyment of the river.
4 Description of the Proposed Enerdu Project

4.1 General

The proposed Enerdu Project will include:

- A new powerhouse and control gate;
- A new intake canal wall (also known as weir 'A') located between the bridge and the powerhouse;
- A new Obermeyer-style concrete weir topped by a pneumatically actuated gate consisting of a steel blade supported and raised by a rubber bladder (Figure 9 and Figure 10) will be constructed mostly on the footprint of the existing weir, but with an expanded width;
- Concrete blocks installed at each angle of the weir;
- A new tailrace at the exit of the powerhouse;
- Conversion of the existing powerhouse intake into a bypass during high-flow conditions;
- Stabilization of the river bank along the new tailrace;
- Attachment of the new powerhouse to the exterior wall of the current powerhouse that is cast against the former stone wall from the grist mill and the concrete flume;
- A new access road from Main Street to the powerhouse to be built over the existing tailrace on the southwest portion of the Enerdu property (Figure 3). The existing weir and the intake wall weir will be removed. Hoe-ramming of approximately .16 ha of the bedrock shelf upstream of the existing weir will be required to improve the conveyance of water to the intake. 49

The project will not require new transmission lines.

4.2 Powerhouse

The final design of the proposed powerhouse is pending. It has been proposed as a two-storey structure with a footprint of about 375 m² (approximately 15 m wide and 24 m long). About 50% of the structure will be set within the river on the bedrock shelf. The powerhouse will be attached to the east side of the existing powerhouse and flume. The two propeller-type turbines and generators installed in the new powerhouse will occupy about 75% footprint of the building. Turbine outflows are located on the west (downstream) end of the powerhouse.

The concept drawing of the new powerhouse submitted by the proponent to the Town depicts a building with a flat roof (Figure 7) with exterior walls clad in stone or in a stone-like finish. The windows of the powerhouse are shown in two groupings in a pattern evocative of industrial structures. The control gate wall that protects the intake and trashrack is set about 2.5 m lower than the roof of the powerhouse at 118.5 masl.

The stone-like appearance is shown in this drawing and in the technical drawings as being repeated on other vertical surfaces connected to the powerhouse and facing the river, including the control gate wall. Several recommendations in this HIA address its final design.

The construction of the powerhouse will also change the perceived width of the river channel.

---

At present, the distance separating the flume of the current powerhouse and the retaining wall along the riparian edge of the Ironworks property is 54.5 m. With the construction of the new powerhouse, this distance will be reduced to 39 m.

4.3 Intake Canal Wall (Weir A)

The concrete intake canal wall (which is technically a weir) stretches 12.5 m from the end of the control gate to the bridge. Since the issuance of the Draft HIA Report, the height of the intake canal was lowered from 118.0 masl to 117.7 masl, so that it matches the current height of the flashboards on the existing weir. At that height, which is achieved when the adjustable, 0.5-m tall Obermeyer gate is in its fully raised position, the amount of water spilling over the canal wall will now be what would occur in the absence of the project, thereby reducing the visual impact in most flows.

4.4 New Weirs (Weirs B, C and D) on the East Side of the Bridge

Three new weirs sections will be constructed to replace the existing concrete weir topped by wooden flashboards. The current weirs all have a crest elevation of approximately 117.2 masl; the wooden flashboards add 0.4 – 0.5 m to the height. The new weir sections will also all have a crest elevation of 117.2 masl with an adjustable Obermeyer gate adding a maximum of 0.5 m to the height.

The conceptual drawings presented in Annex I of the ER (December 2012) originally illustrated the new weirs as having a width of approximately 3.5 m. Following the release of the draft HIA report, the conceptual plans were revised to reduce the weirs’ footprint. The width of the weirs (which are three attached structures) are 3.1 m, 1.96 m and 1.275 m. Only small amounts of natural bedrock near the waterfall terrace downstream from the weirs will be removed to construct the weirs.

For most of the new weir's length, the new weir will be constructed on top of the bedrock. Some trenching (about 50 cm wide and 30 cm deep) may be required in places where the surface of the bedrock is a bit higher; this trenching would be needed to make room for the Obermeyer gate’s hardware (e.g. pipes and anchors). Compared to existing conditions, the first 'step' of the waterfall terrace (i.e. the point where the water first spills over the top and then down the bedrock falls) will be shifted downstream by approximately 1 m (nearer to the bridge pier) to 0.8 m (at upstream end). For the two weir sections closest to the Riverwalk, the change in the shift in the first ‘step’ of the waterfalls will be much lower, being only 0.3 m further downstream compared to existing conditions.

With the construction of the new weirs, the exposed riverbed will look almost the same as it does now, but the appearance of the area will be altered. In low water periods, the new weirs will be almost completely exposed (as the weir is today); the Obermeyer gates will also be visible. In other periods, water spilling over the Obermeyer gate will also flow over the concrete, thereby hiding the concrete base and minimizing the aesthetic impact of the concrete weir.

4.5 Waterflow

The upgrade to Enerdu GS will increase its capacity from 14 to 37 cubic metres per second. This change will not affect water levels upstream of the weir or downstream of the tailrace.

4.6 Tailrace

The new tailrace will be deeper than the existing riverbed, requiring excavation of the riverbed and the constructing of a wing wall along the shoreline.
4.7 Headpond

The Enerdu project proposes to remove rock from the riverbed immediately upstream from the intake canal on the other side of the railway bridge through hoe-ramming, and, possibly, blasting.\textsuperscript{50} The excavated riverbed (Figure 38) will be covered by water in all seasons.

\textsuperscript{50} No underwater blasting would be done; any blasting would occur in dewatered areas enclosed by cofferdams. Bowfin, \textit{Environmental Impact Assessment}, 48.
5 Potential Cultural Heritage Impacts

The purpose of this HIA is to identify cultural heritage resources that might be affected by the Enerdu Project and the potential adverse impacts of the project on the heritage values of the identified resources. Section 3 of this report determined that impacts on seven (7) heritage buildings and one cultural heritage landscape to be assessed.

5.1 Potential Impacts

The MTCS recommends that impacts be considered, as a minimum, in the following categories:

- Demolition, damage or removal of any, or part of any, heritage attributes or features;
- Alteration that is not sympathetic, or is incompatible, with the historic fabric or appearance of a cultural resource;
- Shadows created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship; and
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features.

Additional impacts considered in this report are:

- Possibility of accidental destruction of or damage to heritage attributes; and
- Limiting or blocking access to a heritage property where the enjoyment is related to its heritage value.

Table 1: Potential Adverse Impacts of Works on Cultural Heritage by Type of Impact

<table>
<thead>
<tr>
<th>Work</th>
<th>Affected Cultural Heritage Resources</th>
<th>Type of Potential Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mississippi River</td>
<td>New powerhouse, tailrace wingwall, access road and intake</td>
<td>- Obstruction of significant views, including the view up the Mississippi River from points along Main Street west of the project.</td>
</tr>
<tr>
<td></td>
<td>Mississippi River Cultural Landscape</td>
<td>- Alteration in the historic appearance of the cultural landscape by narrowing the gap between the two sides of the river and inserting a large, modern structure in the river.</td>
</tr>
<tr>
<td></td>
<td>Almonte Flour Mill Complex</td>
<td>- Alteration in the appearance of part of the cultural landscape due to the insertion of a modern structure in an area where historic buildings, bridges and relics currently set the character of the area.</td>
</tr>
<tr>
<td>Railway bridge</td>
<td>Obstruction of the view of the concrete flume.</td>
<td>- Elimination of the view of the remnants of the stone wall that remains from the original grist mill.</td>
</tr>
<tr>
<td>Missouri River</td>
<td>Alteration that has potential to be incompatible with the</td>
<td>- Alteration that has potential to be incompatible with the historic fabric of the rolling mill.</td>
</tr>
<tr>
<td></td>
<td>Obstruction of significant views from the south shore of</td>
<td>- Obstruction of significant views from the south shore of the river to the complex.</td>
</tr>
<tr>
<td></td>
<td>the river to the complex.</td>
<td>- Isolation of the rolling mill from the footprint of the flume.</td>
</tr>
<tr>
<td></td>
<td>Railway bridge</td>
<td>- Obstruction of significant views from the south shore of the river and buildings to the railway bridge and from the Main Street Bridge to the railway bridge.</td>
</tr>
<tr>
<td></td>
<td>Obstruction of the view from the Ironworks building to the</td>
<td>- Obstruction of the view from the Ironworks building to the Almonte Flour Mill Complex.</td>
</tr>
</tbody>
</table>
Ironworks  
- Alteration in the appearance of a view from the Ironworks towards the Almonte Flour Mill due to both the interruption in the view caused by the powerhouse and the narrowing of the gap across the river.

Victoria Woollen Mill  
- Obstruction of the view from the Victoria Woollen Mill on all levels to the Almonte Flour Mill Complex and the bridge.

Thoburn Mill  
- Obstruction of the view from the Thoburn Mill on all levels to the Almonte Flour Mill Complex and the bridge.

New weirs Mississippi River Cultural Landscape  
- Alteration in the view of the rocky terrace in front of the new weirs and in the view of the river, especially in periods of low water flow when the weir will be fully exposed.

Almonte Flour Mill Complex  
- No impact.

Railway bridge  
- Alteration will increase the visibility of a constructed work in an area of natural aesthetic value that serves as a foreground for the bridge.

Old Almonte Town Hall  
- Partial obstruction of the view from the Town Hall of the rock shelves.

Vetter House  
- No impact.

5.2 Other Impacts

5.2.1 Accidental Damage and Blocking Access During Construction

During construction, accidental damage is possible, with the strongest potential being damage to the Almonte Flour Mill Complex and the bridge. Effects on access and enjoyment of the historic places located in Almonte are also possible. Both issues are discussed in Section 6 (Mitigation Recommendations) of the HIA.

5.2.2 Accidental Damage from Flooding

The public has expressed concern that heritage resources and other properties could be affected by new threats of floods resulting from the Enerdu Project. The risk of flooding has been addressed in other studies that concluded no additional risk of flooding.

5.2.3 Potential Lack of Access for Traditional Recreational Activities

Traditional water activities, specifically canoeing and swimming, will not be affected by the Enerdu Project.

5.3 Potential Positive Impacts

A sensitive design for the powerhouse has potential to improve the aesthetic appearance of the Almonte Flour Mill Complex and to partially mitigate the effects of the project on the cultural heritage value of the Mississippi River Cultural Landscape. An appropriate design for the powerhouse could also make it more likely that alterations to the complex in the future, such as repairs and replacements of the new condominium section, are harmonious with the rolling mill and the cultural landscape. Further, the Enerdu Project’s function is part of the long history of harnessing the Mississippi River for the power production in Almonte and could be the subject of interesting and informative interpretation strategies for visitors and residents. The Enerdu Project could also be a catalyst for further improvements and conservation actions, such as the preservation of the railway bridge and its rehabilitation as a pedestrian bridge.
6 Mitigation Recommendations

6.1 Alternatives

The works included in the Enerdu Project have been designed and proposed by engineers working for the proponent to comply with various obligations and technical requirements. The author of the HIA is not an engineer and cannot comment on whether alternatives, such as using something other than an Obermeyer-style gate on the weir or changing the location of the powerhouse, should or could be considered.

6.2 Potential Adverse Impacts that Cannot Be Mitigated

Some potential adverse impacts from the Enerdu Project cannot be fully mitigated. The significant impacts are the views and spatial relationships in the landscape that will be altered due to the construction of the powerhouse and its location.

6.3 Class EA Guidance on Mitigation

The Class EA for Waterpower Projects identifies the following set of mitigation options ranked in the order that should be considered to address adverse impacts on built heritage resources and cultural landscapes. The Class EA guidance recommends that conservation plans be integrated into all options, but the MTCS did not ask for conservation plans to be prepared as part of the Enerdu HIA. Nonetheless, the HIA recommends that conservation issues be addressed and documented in the design of the powerhouse by documenting how the cultural heritage value of the Mississippi River Cultural Landscape has been addressed in the powerhouse design.

Class EA for Waterpower Projects – Mitigation Listing

1. Retain existing built heritage attributes with no major change.
2. Restore missing or deteriorated elements where physical or documentary evidence (e.g., photographs or drawings) exists.
3. Retain existing built heritage attributes, but sympathetically modified.
4. Retain existing built heritage attributes with sympathetically designed new structures in proximity.
5. Retain existing built heritage attributes with limitations on use or adapted for a new use.
6. Retain built heritage attributes as a monument or remnant for viewing purposes only.
7. Relocate built heritage attributes to an appropriate new site for continued use or adaptive re-use.
8. Remove and / or replace built heritage attributes with a sympathetically designed structure and
   a. Salvage building elements for incorporation into new structure or for future conservation work or displays;
   b. Undertake full recording and documentation of existing building.

---

6.4 Summary of Mitigation Recommendations

The following table summarizes mitigation recommendations by work and impact type. The Class EA list and guidance from the *Standards and Guidelines for the Conservation of Historic Places in Canada* and publications of the MTCS have been used to prepare the mitigation recommendations for the HIA.

**Table 2: Impacts and Mitigation Measures**

<table>
<thead>
<tr>
<th>Work</th>
<th>Affected Resources</th>
<th>Impact Type</th>
<th>HIA Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New powerhouse, tailrace wingwall, access road and intake canal wall</td>
<td>Mississippi River Cultural Landscape</td>
<td>Obstruction of significant views&lt;br&gt;Alteration in the historic appearance&lt;br&gt;Alteration in views of the rocky terrace</td>
<td>Engagement of a qualified architect with experience in working with historic environments for the design the powerhouse.&lt;br&gt;Input from a Town of Mississippi Mills advisory committee (see Appendix 5) into the design of the powerhouse.&lt;br&gt;Use of distinctive safety railings with designs related to the historic context.&lt;br&gt;Documentation of the cultural landscape’s appearance prior to construction.&lt;br&gt; Documentation of any evidence about the river’s history that is uncovered during construction.</td>
</tr>
<tr>
<td>Almonte Flour Mill Complex</td>
<td></td>
<td>Obstruction of views of attributes&lt;br&gt;Hiding of the remnant stone walls by new construction&lt;br&gt;Alteration that may be incompatible with historic fabric&lt;br&gt;Obstruction of significant views&lt;br&gt;Isolation of the rolling mills from the historic flume</td>
<td>Engagement of a qualified architect for the design the powerhouse, as described above.&lt;br&gt;Input from a Town of Mississippi Mills advisory committee, as described above.&lt;br&gt;Recording and documentation of the flume and walls through photography deposited with a public institution recommended by the Heritage Committee.&lt;br&gt;Landscape plan to reduce the visual impact of the road and parking area.</td>
</tr>
<tr>
<td>Railway bridge</td>
<td>Mississippi River Ironworks Victoria Woollen Mill Thoburn Mill</td>
<td>Obstruction of significant views</td>
<td>Engagement of a qualified architect for the design the powerhouse, as described above.&lt;br&gt;Input from a Town of Mississippi Mills advisory committee, as described above.</td>
</tr>
<tr>
<td>New weirs</td>
<td>Mississippi River Cultural Landscape</td>
<td>Alteration in the appearance of part of the cultural landscape due to the presence of new weirs</td>
<td>No further mitigation proposed following further refinement of the design by the proponent.</td>
</tr>
</tbody>
</table>
6.5 Discussion of Mitigation Recommendations

6.5.1 General

Recommendations:

- All work should be conducted as expeditiously as possible to reduce the impact on tourism and on residents.
- Any staging areas and temporary access roads should be returned to their original states after construction and, whenever possible, improved.
- Prior to construction, the physical condition of the existing cultural landscape should be documented through photography for posterity and for future conservation decisions by the community.
- While fencing and signage is not a new requirement, the integration of distinctive safety railings with designs related to the historic context should be considered if such works are required to meet regulated safety standards and codes.
- Any new lighting required for the Enerdu Project should be designed to be compatible with the Town’s Official Plan. It should also respect the historic setting by narrowing the beam on discrete elements, rather than by floodlighting.
- Accidental damage during construction is always possible, therefore a qualified professional should be retained to determine whether any construction and excavation activities are likely to affect the structural stability of the built heritage identified in this HIA and to take appropriate measures to reduce risks. Feasible measures could include conducting pre-construction surveys of the potentially affected heritage buildings, reducing vibrations below acceptable levels, avoidance and buffering of built heritage resources and cultural heritage landscape features, and bracing of structural elements. The work will require monitoring of buildings during construction, and establishing warning and stop work thresholds for monitoring.
- Documentation of all historic features uncovered during the construction through high-quality photographs is needed, with the intention of depositing the record with the Town of Mississippi Mills for its heritage files (as requested by the Heritage Committee.)
- Electronic copies of the final HIA report should be made available to the public online and through copies deposited with the Town of Mississippi Mills, the Mississippi Valley Textile Museum and the Mississippi Mills Public Library.

6.5.2 New Powerhouse and Intake Canal

Recommendations:

- For the powerhouse, a qualified architect with heritage conservation experience and knowledge should be engaged to provide input into the design of the powerhouse to ensure that its form, massing, cladding and appearance are consistent with heritage conservation standards and guidelines for:
  - infill projects in cultural landscapes of heritage value
  - additions to heritage buildings (due to the project’s co-location on the Almonte Flour Mill property)
  - additions to cultural landscapes
- For the powerhouse, as per the agreement made by the proponent to involve the Town of Mississippi Mills and the Heritage Committee, a process to bring public interests into the design of the powerhouse is needed. A proposed process, to be managed by the Town, is described in more detail in Appendix 5. The proponent will
choose the final design, but input from a community advisory committee would ensure that the complexities of the landscape are addressed to the greatest extent possible.

- When addressing the design of the powerhouse, the architect or engineer should also propose devices that might be considered to make the intake canal wall (Weir A) more sympathetic to the historic character of the landscape.
- All sides of the powerhouse should be addressed in the design and, wherever possible, windows should be introduced to break up the massing and create more transparency. As an example, the west side includes the turbine outflow areas, above which there may be space for windows. In addition, the shape of the outflow dividers should be considered in the design to address the view of the structure downstream on Main Street.
- High-quality photographs of industrial remains related to the Almonte Flour Mill Complex should be taken during the construction work as a permanent record of the structure.

Discussion:

The powerhouse, control gate section and intake canal wall are, in effect, a single work that represent additions to the Almonte Flour Mill Complex and Mississippi River Cultural Landscape. The Almonte Flour Mill Complex consists of multiple structures dominated by the stone rolling mill. Other parts of the complex consist of exposed concrete or are clad in metal. The new powerhouse will be an addition to the complex.

The powerhouse will obscure views of the bridge (Figure 36), and change the appearance of the river’s width, although the flow itself will not change. At present, the distance separating the flume of the current powerhouse and the retaining wall along the riparian edge of the Ironworks property is 54.5 m. With the construction of the new powerhouse, this distance will be reduced to 39 m.

As per the Standards and Guidelines for the Conservation of Historic Places in Canada related to the conservation of heritage buildings, the powerhouse should be designed to be as harmonious as possible with both the Almonte Flour Mill Complex and the Mississippi River Cultural Landscape. The design should address, to the greatest extent possible, the building’s orientation, scale, massing, composition, proportions, colour and texture. Further guidance on addressing these elements is found in the Standards and Guidelines. As examples only, the final design of the powerhouse should be compatible with the proportions, colours and massing of the rolling mill and it should be compatible with cultural landscape’s “past or continuing land use.”

At present, flows over the existing structure are limited to leaks between the flashboards during low flows, with larger amounts of water overtopping the flashboards in periods of high water. The proponent has examined the weir heights, including the intake wall, and made adjustments that will allow water to flow over the wall during some flow conditions. Devices that could add visual interest to the wall, such as adding vertical scores in the masonry, should be considered. The pattern could take a cue from the final design of the powerhouse.


6.5.3 Access Road and Tailrace

Recommendation:

- A landscape plan should be used to screen views of the access road and parking area from the Main Street Bridge and along Main Street.

Discussion:

The access road will be constructed on part of the property that is currently undeveloped. Construction will also stabilize the slope. The tailrace wall is to be located at the bottom of the slope at the river level in place of the peninsula.

6.5.4 Excavation for the Headpond

Recommendation:

- A qualified professional should be retained to determine whether any construction and excavation activities are likely to affect the structural stability of the built heritage identified in this HIA and to take appropriate measures to reduce risks. Feasible measures could include conducting pre-construction surveys of the potentially affected heritage buildings, reducing vibrations below acceptable levels, avoidance and buffering of built heritage resources and cultural heritage landscape features, and bracing of structural elements. The work will require monitoring of buildings during construction, and establishing warning and stop work thresholds for monitoring.

Discussion:

The Enerdu project proposes to remove rock from the riverbed immediately upstream from the intake canal on the other side of the railway bridge through hoe-ramming, and, possibly, blasting. The excavated riverbed will be covered by water in all seasons.

The negative impacts of excavation and of construction on cultural heritage are related to the potential impact of blasting and hoe-ramming on the stability of adjacent heritage structures. A prior commitment from the proponent stated that no blasting would occur closer than 6 to 10 m from a built structure, which would include the bridge.

---

54 No underwater blasting would be done; any blasting would occur in dewatered areas enclosed by cofferdams. Bowfin, *Environmental Impact Assessment*, 48.
7 Summary Statement

The Enerdu Project is located in a sensitive location in the Mississippi River Cultural Landscape, as has been acknowledged by the proponent. The Enerdu Project will reinforce the importance of waterpower in the area’s history, but it will also insert a relatively large 21st-century work (the powerhouse) into the landscape.

The three components that have the greatest potential for adversely affecting cultural heritage resources are the new powerhouse, the intake canal wall (Weir A) and the new weir. Mitigation measures have been recommended in this HIA for both the construction and design stages to lessen the negative impacts on all cultural heritage resources – built heritage and cultural landscapes. The key mitigation recommendations are:

- For the powerhouse, a qualified architect with heritage conservation experience and knowledge should be engaged to provide input into the design of the powerhouse to ensure that its form, massing, cladding and appearance are consistent with heritage conservation standards and guidelines for:
  - infill projects in cultural landscapes of heritage value
  - additions to heritage buildings (due to the project’s co-location on the Almonte Flour Mill property)
  - additions to cultural landscapes
- For the powerhouse, as per the agreement made by the proponent to involve the Town of Mississippi Mills and the Heritage Committee, a process to bring public interests into the design of the powerhouse is needed. A proposed process, to be managed by the Town, is described in more detail in Appendix 5. The proponent will choose the final design, but input from a community advisory committee would ensure that the complexities of the landscape are addressed to the greatest extent possible.
- When addressing the design of the powerhouse, the architect or engineer should also propose devices that might be considered to make the intake canal wall more sympathetic to the historic character of the landscape and the bridge.
- High-quality photographs of industrial remains, including the walls of the historic flume, should be taken during the construction work as a permanent record of the structure.
- During construction, measures should be taken to address accidental damage to heritage resources, including the former railway bridge.

These recommendations are also consistent with comments made by the public, the Town of Mississippi Mills Heritage Committee and the MTCS.

A summary of all comments is included in Appendix 1: Public Comments Received on the Draft HIA.
8 Sources

8.1 Enerdu Project Materials


OEL-HydroSys Inc. Enerdu GS Expansion & Redevelopment Project: Project Description, June 2011


8.2 Local Comments in the News


8.3 Municipal Reports and Records


As indicated in footnotes of the HIA, Town of Mississippi Mills planning files about some of the properties with cultural resources that could be affected by the Enerdu Project were reviewed in March 2014.
8.4 Historic Sources

“Almonte,” The Canadian journal of commerce, finance and insurance review, [Vol. 48, no. 12 (Mar. 24, 1899)]: 42.

Almonte Walking Tours (1 & 2) available online at: http://lanarkcountytourism.com.


“Fire Notes,” The journal of commerce, finance and insurance review, [Vol. 3, no. 21 (Jan. 5, 1877)]: 578 (available by subscription in www.canadiana.org).


9 Figures

Figure 1: View of the river (southeast) side of the Enerdu property, 2014. Source: Contentworks.
Figure 2: Enerdu Project, Existing Conditions as shown in drawings prepared in 2012.

Key: #1 – weir; 2 – railway bridge; 3 – Almonte Flour Mill condominiums and powerhouse; 4 – existing concrete flume; 5 – open land (island); 6 – Main Street; 7 – concrete weir; 8 – Small Island; 9 – spillway; 10 – concrete wall; 11 – Barley Mow and patio; 12 – Thoburn Mill; 13 – Riverwalk.

Figure 3: Enerdu Project, General Layout Plan, Option 1, as shown in drawings prepared in 2012.

Figure 4: Enerdu Project, General Layout as revised to June 2014 showing the reduction in the footprint of the new weir. Source: Enerdu Power Systems Inc./Hydrosys Drawing dated 19 June 2014.
Figure 5: Powerhouse and intake profile. Source: Enerdu Power Systems Inc./Hydrosys
Drawing dated 19 June 2014.
Figure 6: Powerhouse and site profile, with the arrow pointing to the control gate section. Source: Enerdu Power Systems Inc./Hydrosys Drawing dated 19 June 2014.
Figure 7: Presentation rendition of a concept design for the Enerdu Project powerhouse. The arrows point to the wingwall (left) behind the tailrace, powerhouse (centre) and intake-canal wall (right) as seen from the terrace of the Mississippi River Ironworks building (Barley Mow). Source: Enerdu, 2013.

Figure 8: Study area (red) and Enerdu Project areas (blue) annotated by Contentworks on a www.bing.com map.
Figure 9: Detail drawing of the Obermeyer Steel Gate. Source: Enerdu Power Systems Inc./Hydrosys Drawing dated 19 June 2014.

Figure 10: Obermeyer-style gate on a concrete weir, looking upstream from a typical installation. The gate in this image appears to be twice the height of the gate proposed for the Enerdu Project. Source: www.obermeyerhydro.com/Hydropower.
Figure 11: Study area (red) and built heritage (green) in the study area annotated by Contentworks on a www.bing.com map.
Figure 12: The location of the Enerdu Project relative to the historic textile mills in Almonte (extant and demolished) provides a general view of the meaning of the Mississippi River Cultural Landscape. Other industries could be added to this type of map, including traces of other Wylie industrial concerns. The Wylie Mill is marked with the red arrow. Source: Gerry Wheatley (1994). *Our Heritage Vol. No. 1: Almonte's Mills* (Mississippi Textile Museum, Almonte).

Figure 13: Property on Main Street facing the Almonte Flour Mill. Source: Google Streetview,
Figure 14: View of the existing weir, the rocky terrace, the small island and the Old Town Hall, looking southeast from the railway Bridge, 2011. Source: Stage 1 Archaeological Assessment Enerdu GS 0 Town of Mississippi Mills (Almonte): 41.

Figure 15: Wylie rolling mills, c 1900. The Mississippi Ironworks buildings are visible on the r. The photograph may have been taken to show the high water level. Source: Library and Archives Canada / PA-057904/ Mrs. Frank Spear Collection.
Figure 16: View of the weir and the CP Railway Bridge, looking east from the condominium addition, 2011. Source: Stage 1 Archaeological Assessment Enerdu GS 0 Town of Mississippi Mills (Almonte): 41.

Figure 17: Main parts of the Enerdu property at 11 Main Street, including four buildings and two power structures (the tailrace and the flume). Source: Contentworks.
Figure 18: Almonte Flour Mill Condominium Complex from the Main Street (northwest) side. Source: Google Streetview, www.google.com, c 2012.

Figure 19: Almonte, Ont., Jan. 1879, Goad’s Insurance Atlas, Key plan [no detailed plan for the area near the Wylie mill], February 1879. Red arrow shows the location of the Wylie Grist Mill. LAC, MIKAN 3810229.
Figure 20: View of the Almonte Flour Mill property some time between 1859 and 1884. The image also shows the timber superstructure of the railway bridge. Source: Attributed to Almonte Ontario, [Michael Dunn] historic photo collection in the Stage 1 Archaeology Report.

Figure 21: Painting of the Almonte Flour Mill property, c 1860s. The configuration of buildings and sluices corresponds with the earliest photographs. Source: Almonte Ontario, [Michael Dunn] historic photo collection, online at: http://almonte.com/our-history/historic-photo-archive/.
Figure 22: Almonte, Ont., Jan. 1889, Goad’s Insurance Atlas, Key plan, revised May 1902. Red arrow added to show the location of the Wylie & Co. Almonte Roller Mills in the context of downtown Almonte (the yellow area marked with the number 2). Source: LAC, MIKAN no. 3810234.
Figure 23: Almonte, Ont., Jan. 1889, Goad’s Insurance Atlas, Sheet 2, revised May 1902. The text and colours on the plan show that the two main buildings are each three storeys; the roller mill is constructed of stone and the grist mill is constructed of wood with a stone basement. The flume is running parallel to the buildings. From photographs, it appears that the flume was constructed of concrete with wood bracing on the outside. The turbines were located in the basement of the grist mill, as per the drawing’s location of the tailrace. Source: LAC, MIKAN no. 3810234.
Figure 24: Burned out rolling mill, 1909. Source: Almonte Ontario, [Michael Dunn] historic photo collection, online at: http://almonte.com/our-history/historic-photo-archive/.

Figure 25: View of the Wylie rolling mills, c 1910. Source: Wilfred Snedden / Library and Archives Canada / PA-069766.
Figure 26: Wylie rolling mills, c 1910, illustrating parts of the property. Source: Wilfred Snedden / Library and Archives Canada / PA-069766. Annotations by Contentworks.

Figure 27: Coloured postcard view of the Almonte Flour Mill property and the falls, c 1920. Source: Almonte Ontario, [Michael Dunn] historic photo collection, online at: http://almonte.com/our-history/historic-photo-archive/.
Figure 28: View of the Almonte Flour Mill property in winter (on the right), 1942. No powerhouse is visible in this photograph. Source: Almonte Ontario, [Michael Dunn] historic photo collection, online at: http://almonte.com/our-history/historic-photo-archive/.

Figure 29: Almonte Flour Mill with the office and feed storage (or dairy) on the southwest side, c 1950. This photograph shows a raised extension to the grist mill portion of the building extending over the powerhouse on piers. Source: Almonte Ontario, [Michael Dunn Collection].
Figure 30: Train accident on the railway bridge, with cars on top of the one-storey addition to the rolling mill. Source: Almonte Ontario, [Michael Dunn] historic photo collection, online at: http://almonte.com/our-history/historic-photo-archive/.

Figure 31: View of the former railway bridge and the Almonte Flour Mill Complex from the Old Town Hall. Source: Contentworks Inc., 2014.
Figure 32: View of the current concrete weir with panel flashboards, as well as the rocky terrace, as seen from the small island looking north, 16 November 2011. Source: Stage 1 Archaeological Assessment Enerdu GS 0 Town of Mississippi Mills (Almonte): 42.

Figure 33: View across the Mississippi River towards the Menzies House (far right), February 2014. The wake from the weir is visible in the foreground. Source: Contentworks.
Figure 34: Almonte Town Hall, c 1910. A small portion of the Wylie Mill is visible to the left of the pole. Source: Wilfred Snedden, Library and Archives Canada, PA-069767.

Figure 35: Thoburn Mill (right). Source: Contentworks Inc., 2014
Figure 36: Railway bridge, as seen from the riverwalk, March 2014. The bridge has seven piers; six are visible in the photograph. From this angle, the view of the three piers (red arrows) near the Enerdu Project will likely be largely obscured by the construction of the intake canal wall above the height of the current weir (blue arrow). From this angle, and from others, however, the full length of the bridge will be visible. Source: Contentworks.

Figure 37: Looking east across the railway bridge, ca 1900, with the Town Hall on the left, the Thoburn Mill in the centre to the right of the bridge, coloured as brick, and the main building of the Mississippi Ironworks (destroyed by fire) in stone in the right foreground. Source: Almonte Ontario, [Michael Dunn] historic photo collection, online at: http://almonte.com/our-history/historic-photo-archive/.
Figure 38: Drawing showing the area to be excavated about 1 metre below the surface of the riverbed. Source: Enerdu Power Systems Inc./Hydrosys Drawing dated 19 June 2014.
Appendices

Appendix 1: Public Comments Received on the Draft HIA

General: Multiple comments were received about the impact of the powerhouse, in particular, on views from specific buildings and along the Mississippi River. In most cases, these views are already covered in the report. The comments are consolidated from one or more letters and emails because they concern topics that were either missed in the Draft HIA or should be clarified or corrected in the Final HIA.

Public Comment: Mitigation measures should include monitoring to ensure that the project proceeds according to the final approved design.
Response: The design process (which includes input from the Town of Mississippi Mills and the Heritage Committee) is the recommended approach. This is a form of “monitoring” but it will not be included under the sub-section “monitoring”.

Public Comment: The Final HIA should honour the stone heritage of the town.
Response: Recommendations concerning the design of the powerhouse will include a reference to the importance of stone masonry as an attribute of the Mississippi River Cultural Landscape.

Public Comment: The final HIA should recommend that the project be stopped.
Response: The HIA is undertaken within the scope of the Class EA for Waterpower Projects, a process approved under the Environmental Assessment Act. The HIA addresses heritage impacts that should be considered if the project proceeds.

Public Comment: More mitigation measures should be included in the final HIA.
Response: Additional wording concerning mitigation will be added to the Final HIA, including a sentence requested by the MTCS.

Public Comment: The Draft HIA needs to be more detailed concerning the design, materials and details of the powerhouse.
Response: An architect has been engaged to prepare the final designs for the powerhouse with input from the Town of Mississippi Mills and the Town's Heritage Committee as per the recommendations of the draft HIA.

Public Comment: The Draft HIA placed too much emphasis on industrial events and relics in its description and evaluation of the Mississippi River Cultural Landscape.
Response: The Final HIA will address the importance of more recent actions – including heritage conservation, provision of public amenities and beautification efforts – in creating the landscape that is present today.

Public Comment: The report should address the issue that the Enerdu Project is a permanent change; it will forever alter the landscape.
Response: This will be addressed in the Final HIA.
Public Comment: The Draft HIA does not include an analysis of the impact of the powerhouse on views of the Mississippi River as seen from the small park on Main Street near the Main Street Bridge and as seen from the higher points on buildings around the area.

Response: The effect on the view and the recommendations concerning the design of the powerhouse will be broadened to include these concerns.

Public Comment: Has the impact on the adaptive reuse of all built heritage sites been addressed in the HIA?

Response: Yes.

Public Comment: The Draft HIA does not include a comment on the effects from the noise of the turbines.

Response: A noise study assessment will be conducted during the regulatory permitting phase. A decibel rating can only be determined following the final selection of the turbines and the final design of the powerhouse. As explained in Section 9.0 of the ER, the proponent will be required to secure an Environmental Compliance Approval (ECA) for Air (Noise) as per Section 9 of the *Environmental Protection Act*, prior to project commissioning, which will outline the operational terms and conditions to which the facility will be bound; additionally, an acoustic impact assessment will be required as part of the ECA application which will recommend design factors for the powerhouse that will ensure outside noise levels do not exceed regulatory requirements.

A noise study and assessment will be undertaken by a certified engineer and submitted in an engineering report to support the applications for an ECA.

Public Comment: The Draft HIA does not include a reference to risks to heritage buildings and cultural landscapes from flooding.

Response: In accordance with conditions #4 – 6 of the Minister of the Environment’s November 18, 2013 decision on the Part II Order requests, additional hydraulic modelling was conducted for the proposed development, and appropriate mitigation measures were developed to address potential flooding impacts in the bypass reach (the river channel immediately adjacent to the new powerhouse). To mitigate against potential flooding impacts, a flow bypass will be constructed through the existing powerhouse to:

- Reduce the flooding hazard in the bypass reach, by reducing the total discharge flowing through that reach in regional flood conditions (342 m$^3$/s);
- Reduce the flooding hazard upstream of the Enerdu GS, by providing a greater discharge capacity compared to the existing facility.

The results of hydraulic modelling, conducted for the regional flood scenario of 342 m$^3$/s, have demonstrated that the proposed powerhouse will not have any adverse impact on flooding hazard to heritage and non-heritage structure in the bypassed reach, provided that the proposed flow bypass in the existing powerhouse is constructed.

These results were presented to the Ministry of Natural Resources (MNR) and the Mississippi Valley Conservation Authority (MVCA) in a preliminary Technical Note issued on March 14, 2014, which was followed by a meeting between MNR, MVCA, the proponent and the consulting team on March 25, 2014. During the meeting, the agencies accepted the preliminary conclusions with minor revisions to the Technical Note. The revisions were reflected in a revised Technical Note issued on April 16, 2014. The final Technical Note was included as part of a larger application package submitted to the MNR in June 2014, for
approval under the *Lakes and Rivers Improvement Act*.

The HIA will note that the risk to heritage from flooding has been addressed in other studies and that there is no additional risk of flooding from the proposed project.

Public Comment: The drawings, photographs and text in the Draft HIA are misleading about the scale and impact of the powerhouse on the Mississippi River Cultural Landscape and the Almonte Flour Mill.

Response: The Final HIA will include more photographs and more detailed measurements to show the changes in distance between the edge of the shore on the southwest side and the facing wall of the powerhouse.

Public Comment: The history of the weir in the Draft HIA is incomplete.

Response: The history of the weir will be lengthened to include details that were highlighted in comments but already known by the author of the HIA.

Public Comment: The Enerdu Project will deprive residents of the use of the Mississippi River for recreational purposes.

Response: The Final HIA will include recreational use in the description of the Mississippi River Cultural Landscape. Safe recreational uses, such as boating that occurs upstream from the weir, will not be affected by the Enerdu Project.

Public Comment: The Draft HIA does not mention signage and fences that will be required.

Response: While regulations and activities that are required for existing waterpower projects are outside the scope of the Class EA process, the Final HIA will recommend that any new fencing that becomes part of the Enerdu Project be designed and installed in a manner that serves the community's interest in protecting views and reinforcing the historic character of the Mississippi River Cultural Landscape.

Public Comment: I would not like to see part of the falls removed.

Response: The falls will not be removed. Following the release of the Draft HIA report, the footprint of the new weir was reduced in width and shifted upstream in order to mitigate against impacts to the bedrock terrace. The width of the concrete base of the weir section directly opposite the Riverwalk (upstream of the railway bridge) was reduced from approximately 3.5 m down to a range of 1.96 – 3.1 m. The widths of the concrete base of the two weir sections closest to the Riverwalk were reduced from approximately 3.5 m down to approximately 1.275 m. Further, the footprint of the new weir was shifted upstream to overlap with the footprint of the existing weir.

Public Comment: The Enerdu Project is not an “addition” as it has been presented. It is a totally new building that is to be built out into the river, reducing the width of the river by 1/3.

Response: The powerhouse is both a new construction and an addition to a complex. The final HIA is clearer in addressing its impact.

Public comment: A section of the natural limestone riverbed, which creates the unique look of the Mississippi as it cascades through the downtown, will have to be dredged [out?].

Response: The waterfall terrace is not being dredged.

Public Comment: Draft HIA does not reference the Official Plan.
Response: The final HIA includes a reference to the Official Plan.

Public Comment: The history analysis stops the evolution of the heritage uses at a specific point in time associated with the industrial activities of the surrounding buildings.
Response: The final HIA discusses later changes.

Public Comment: The public use spaces are not identified in the report, such as the parkette along the river adjacent to the Post Office/Ironworks buildings; the Riverwalk public access trail system along the shore of the river; and the parkette adjacent to the river and Old Town Hall.
Response: The final HIA includes specific references to these spaces in the assessment of the MRCL.

Public Comment: A portion of the river above the weir adjacent to the railway bridge is commonly used as a swimming hole by youth in our community, an activity that has been ongoing for as long as memory serves.
Response: This use is referenced in the final HIA.

Public Comment: Omits the evolution of the industrial remnants into its current land uses as residential, commercial, recreation and a tourism commercial attraction.
Response: This is included in the final HIA.

Public Comment: The Mississippi River Cultural Landscape that contributes to the community's identity as a residential, commercial and recreational use area that contributes to the modern economy.
Response: The HIA describes the MRCL as being a historic industrial landscape that is being altered into a post-industrial landscape.

Public Comment: The proposed weir is to be placed within the context of a remnant natural waterfall terrace.
Response: The expression "nwt" will be used in the report and the impact of the weir on the terrace will be discussed to reflect the most recent weir design.

Public Comment: Figure 33 doesn't accurately represent the new weir and its impact on the waterfall terrace.
Response: A new figure showing the final weir design is included in the final HIA and provides a more complex description of the impact of the weir on the terrace.

Public Comment: The report does not mention mitigation of the worst case scenario or provide recommendations for a "best case" set of criteria that the proponent should consider to mitigate the impact of the Obermeyer weir.
Response: The final HIA includes revised mitigation measures, but no mitigation is proposed for the Obermeyer gate.

Public Comment: The real conditions of the river in summer mean that the weir and base foundation will be completely exposed during low water, the same time of year when our community is a major tourism attraction.
Response: After the project is built, an aesthetic flow will pass over all weir sections during the daytime in the summer to reduce visual impact.
Public Comment: Views from other key locations are not represented: The Main Street West bridge view looking towards the falls; the view from the Victoria Woolen Mill public outlook; the view from the parkette on the river near the post office; or the view from the Old Town Hall/Queen Street.
Response: Theses Views have been added to the discussion of impacts and the description of the MRCL.

Public Comment: Recommendation should be to complete a viewshed analysis of the proposed design from all of the public vantage points around the study area to identify the actual impact and to assist in finding design options that can mitigate these viewshed impacts.
Response: An analysis of this type may be requested by the architect designing the powerhouse.

Public Comment: The consultant should be following an officially sanctioned methodology, as required by the Government of Ontario in the letter presented in Appendix 1, otherwise how is the community to feel confident that the HIA has been completed with full consideration of all relevant information, and that the findings are free from bias?
Response: The draft HIA was submitted to seek feedback from the community. Each EA HIA must be responsive to the needs of various groups, including MTCS and the Town. The final HIA generally follows the guidelines of the MTCS in letters and documents, but no guides have contemplated the complexity of the heritage conditions in Almonte in the context of this type of proposed intervention.

**Other Comments Received / Response from BluMetric Environmental Inc.**

Several letters concerning the Draft HIA raised issues related to topics outside the scope of the cultural heritage. The comments below are issues that the proponent would like to clarify at the time of the submission of the Final HIA.

Public Comment: The HIA report does not discuss non-heritage environmental impacts.
Response: The potential environmental impacts and the proposed mitigation measures were investigated during the environmental assessment planning process, and are detailed in the Final Environmental Report issued in December 2012. Through the Part II Order Request process, the conclusions of the Final Environmental Report and each issue raised by the requestors were reviewed by the Environmental Approvals Branch (Ministry of the Environment), as well as other ministries and departments with the appropriate expertise. The findings of this review were summarized in the Minister of the Environment’s decision letter dated November 18, 2013, in which the Minister decided to deny the Part II Order requests with conditions (for Enerdu to conduct an HIA and additional hydraulic modelling). With the satisfactory completion of the Minister’s conditions, the Enerdu GS project can move forward with the permitting and approval phase of development.

Public Comment: The river adjacent to the Riverwalk will be dried up; the new weir will completely block all water flow.
Response: The river will not be dried up. The new facility has a limit to the amount of flow it can draw into the intake and turbines; any additional flow occurring in the river will continue to be passed over the weir. An aesthetic flow will be passed over all weir sections during daylight hours in the summer, in order to ensure that the historical minimum flow over the
weir will be preserved. The aesthetics of the Riverwalk are a consideration of the Ministry of Natural Resources and the consulting team in the process for approval of the site under the *Lakes and Rivers Improvement Act*.

**Public Comment:** Concerns about impacts of construction on tourism.

**Response:** As stated in the Environmental Report, Enerdu is committed to working together with the Mississippi Mills Chamber of Commerce in order to avoid undertaking construction activities during local festivals and events. The blasting program will occur as late in the fall as possible and permissible by the applicable approval authorities.

**Public Comment:** Could a second Heritage Impact Assessment or a review from a heritage architect be ordered based on the building plans to be submitted to the municipality prior to Enerdu getting a building permit?

**Response:** There is no regulatory basis for a second HIA under the Class EA process or under the *Planning Act*. The Final HIA will recommend that Enerdu seek input from the Town and the Heritage Committee for the final design of the powerhouse.

**Public Comment:** The HIA does not include references to the eel ladder.

**Response:** As per the *Endangered Species Act*, mitigation measures are required to barriers to upstream migration of American eels in Ontario. As eels have been documented in the Mississippi River, an eel ladder may be needed for the existing Enerdu GS if the existing or future weir is considered a barrier. The details on the ladder have not be finalized and are subject to change. Also note that should monitoring of any ladder built demonstrate that improvements are needed, then it may be further adapted to improve upstream passage. At this time, it is proposed that the eel ladder be located on the north side of the small island where there is a natural upstream path for eels. The ladder would consist of a small enclosed culvert (likely between 30-60 cm in diameter). Recognizing that the public is concerned about the aesthetics of the area, the dimensions of the ladder will be kept as small as possible.

**Public Comment:** HIA report does not discuss water level fluctuations and water levels in Reach 18 of the Mississippi River.

**Response:** Water levels in Reach 18 of the Mississippi River are maintained according to the requirements of the Mississippi River Water Management Plan. The Enerdu GS Expansion and Redevelopment Project does not propose any changes to the Plan, and therefore water levels in Reach 18 will not deviate from those occurring under existing approved conditions.

**Public Comment:** Concerns about the size, location and dimensions of the new weir as described in the HIA report vs. the Environmental Report (2012).

**Response:** Over the course of the EA as well as the HIA for the Enerdu GS project, the proponent received numerous comments regarding the size, location and dimensions of the new weir. The footprint of the concrete base of the new weir was therefore reduced and shifted upstream in order to minimize the visual impact of the new structure, as requested by many members of the public. These revisions are reflected in an application submitted to the Ministry of Natural Resources in late June 2014 for approval under the *Lakes and Rivers Improvement Act*. The revised plans from late June 2014 represent the most current plans, superseding those that appeared in the Environmental Report in 2012; the Final HIA Report therefore reflects these more current plans.

**Public Comment:** Concern that the project will trigger federal legislation requiring the
installation of safety signage and booms and the loss of public access to the river.

Response: Under the new *Navigation Protection Act* (NPA, replacing the former *Navigable Waters Protection Act*), a project would require review by Transport Canada if it takes place on a waterway listed on the List of Scheduled Waters under the NPA, if the works have received a previous approval from Transport Canada, or the works are to occur on Federal Crown land. As the Enerdu GS site and the Mississippi River do not meet these criteria, the Enerdu project will not require review and approval by Transport Canada.

It should be noted that industry standards exist for public safety around dams that apply as much to *existing* dams (even if their construction pre-date the creation of the industry standards) as they do to proposed dams. Requirements for public safety will typically also be balanced against the public right of navigation, which is protected under Common Law irrespective of whether or not the waterway is a scheduled navigable water under the NPA. Any public safety features that may be installed at the existing and/or expanded Enerdu GS will recognize the public right of navigation of the Mississippi River.
### Appendix 2: MCTS Checklist for Impacts on Cultural Heritage

**Screening for Impacts to Built Heritage and Cultural Heritage Landscapes**

This checklist is intended to help proponents determine whether their project could affect known or potential cultural heritage resources. The completed checklist should be returned to the appropriate Heritage Planner or Heritage Advisor at the Ministry of Tourism and Culture.

**Step 1 - Screening for Recognized Cultural Heritage Value**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☒</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

1. Is the subject property designated or adjacent to a property designated under the Ontario Heritage Act?
2. Is the subject property listed on the municipal heritage register or a provincial register list? (e.g. Ontario Heritage Bridge List)
3. Is the subject property within or adjacent to a Heritage Conservation District?
4. Does the subject property have an Ontario Heritage Trust easement or is it adjacent to such a property?
5. Is there a provincial or federal plaque on or near the subject property?
6. Is the subject property a National Historic Site?
7. Is the subject property recognized or valued by an Aboriginal community?

**Step 2 - Screening Potential Resources**

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☒</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>○</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

1. Does the subject property or an adjacent property contain any buildings or structures over forty years old that are:
   - Residential structures (e.g. houses, apartment buildings, shanty or trap line shelter)
   - Farm buildings (e.g. barns, outbuildings, sheds, windmills)
   - Industrial, commercial or institutional buildings (e.g. a factory, school, etc.)
   - Engineering works (e.g. bridges, water or communications towers, roads, water/sewer systems, dams, earthworks, etc.)
   - Monuments or Landmark Features (e.g. caims, statues, obelisks, fountains, reflecting pools, retaining walls, boundary or claim markers, etc.)
2. Is the subject property or an adjacent property associated with a known architect or builder?
3. Is the subject property or an adjacent property associated with a person or event of historic interest?
4. When the municipal heritage planner was contacted regarding potential cultural heritage value of the subject property, did they express interest or concern?

**Cultural heritage landscapes**

5. Does the subject property contain landscape features such as:
   - Burial sites and/or cemeteries
   - Parks or gardens
   - Quarries, mining, industrial or farming operations
   - Canals
   - Prominent natural features that could have special value to people (such as waterfalls, rocky outcrops, large specimen trees, caves, etc.)
   - Evidence of other human-made alterations to the natural landscape (such as trails, boundary or way-finding markers, mounds, earthworks, cultivation, non-native species, etc.)
6. Is the subject property within a Canadian Heritage River watershed?
7. Is the subject property near the Rideau Canal Corridor UNESCO World Heritage Site?
8. Is there any evidence from documentary sources (e.g., local histories, a local recognition program, research studies, previous heritage impact assessment reports, etc.) or local knowledge or Aboriginal oral history, associating the subject property or area with historic events, activities or persons?

November 2010
Note:
If the answer is “yes” to any question in Step 1, proceed to Step 3.

The following resources can assist in answering questions in Step 1:
- Municipal Clerk or Planning Department — Information on properties designated under the Ontario Heritage Act (individual properties or Heritage Conservation Districts) and properties listed on a municipal Heritage Register.
- Ontario Heritage Trust — Contact the OHT directly regarding easement properties. A list of ChT placards can be found on the website: Ontario Heritage Trust.
- Parks Canada — A list of National Historic Sites can be found on the website: Parks Canada
- Ministry of Tourism and Culture — The Ontario Heritage Properties Database includes all properties that have been identified, either formally or informally, by the provincial Ministry. Note that this database is not comprehensive or exhaustive. Ontario Heritage Properties Database
- Local or Provincial archives
- Local heritage organizations, such as the municipal heritage committee, historical society, local branch of the Architectural Conservancy of Ontario, etc.

Consideration should also be given to the presence of significant natural, historical and cultural resources. These are commonly protected by laws and regulations.

If the answer is “yes” to any question in Step 2, an evaluation of cultural heritage value is required. If cultural heritage resources are identified, proceed to Step 3.

If the answer to any question in Step 1 or to questions 2-4, 6-8 in Step 2 is “unknown”, further research is required.

If the answer is “yes” to any of the questions in Step 3, a heritage impact assessment is required.

If there is uncertainty or to any point, the services of a qualified person should be retained to assist in completing this checklist. All cultural heritage evaluation reports and heritage impact assessment reports must be prepared by a qualified person. Qualification means individuals (professionals, engineers, architects, archaeologists, etc.) having relevant, recent experience in the identification and conservation of cultural heritage resources. Appropriate evaluation involves gathering and recording information about the property sufficient to understand and substantiate its heritage value, determining cultural heritage value or interest based on the advice of qualified persons and with appropriate community input. If the property meets the criteria in Ontario Regulation 90/05 under the Ontario Heritage Act, it is a cultural heritage resource.

The 40 year threshold is an indicator of potential when conducting a preliminary survey for identification of cultural heritage resources. While the presence of a built feature that is 40 or more years old does not automatically imply cultural heritage value, it does make it more likely that the property could have cultural heritage value or interest. Similarly, if all the built features on a property are less than 40 years old, this does not automatically mean the property has no cultural heritage value. Note that age is not a criterion for designation under the Ontario Heritage Act.

### Step 3 - Screening for Potential Impacts

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Will the proposed undertaking/development result in any of the following potential impacts to the subject property or an adjacent property?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☑</td>
<td></td>
<td>Destruction, removal or relocation of any, or part of any, heritage attribute or feature.</td>
</tr>
<tr>
<td>☑</td>
<td></td>
<td>Alteration (which means a change in any manner and includes restoration, renovation, repair or disturbance).</td>
</tr>
<tr>
<td>☑</td>
<td></td>
<td>Shadows created that alter the appearance of a heritage attribute or change the exposure or visibility of a natural feature or planting, such as a garden.</td>
</tr>
<tr>
<td>☑</td>
<td></td>
<td>Isolation of a heritage attribute from its surrounding environment, context or a significant relationship.</td>
</tr>
<tr>
<td>☑</td>
<td></td>
<td>Direct or indirect obstruction of significant views or vistas from, within, or to a built or natural heritage feature.</td>
</tr>
<tr>
<td>☑</td>
<td></td>
<td>A change in land use such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces.</td>
</tr>
<tr>
<td></td>
<td>☑</td>
<td>Soil disturbance such as a change in grade, or an alteration of the drainage pattern, or excavation, etc.</td>
</tr>
</tbody>
</table>

*For the purposes of evaluating potential impacts of development and site alteration, “adjacent” means contiguous properties as well as properties that are separated from a heritage property by narrow strips of land used as a public or private road, highway, street, lane, trail, right-of-way, walkway, green space, park, and/or easement or as otherwise defined in the municipal official plan.*

November 2010
Appendix 3: MTCS Letter to Enerdu, 1 February 2013

February 1, 2013 (By email only)

Ms. Muriel Kim
CDSL-HydroSys a division of BluMetric Environmental Inc.
3108 Carp Road, P.O. Box 430
Carp, ON, K0A 1L0

Subject: Final Environmental Report, Class EA for Waterpower Projects
Project: Enerdu GS Expansion and Redevelopment Project
Applicant: Enerdu Power Systems Inc.
Location: Town of Mississippi Mills, Lanark County
MTCS File: PLAN-03EA019

Dear Ms. Kim,

The Ministry of Tourism, Culture and Sport’s (MTCS) interest in this proposed project relates to our mandate of conserving, protecting and preserving Ontario’s heritage including cultural heritage landscapes, built heritage resources and archaeological sites. This office has reviewed the above-mentioned final report, and has the following comments:

Section 1.0 Introduction provides the following description of the existing powerhouse:

“The building which houses the existing powerhouse was built in 1842 as the Wylie Flour Mill. The exact date of construction of the powerhouse is unknown, but the structure is known to have been in operation since at least 1905. The mill was used to grind grain into flour. The former mill in which the powerhouse is located was converted into upscale condominium units by the previous owner.”

This description of construction, use and ownership is confusing. The first sentence identifies the date of construction for the building which houses the powerhouse, and then in the following sentence refers again to a date of construction of the powerhouse, this time stating that it is unknown. Is this sentence meant to communicate that the exact date of the building’s conversion from a mill to a powerhouse is unknown, but that it has been in operation since at least 1905? The final sentence is also confusing. Has a portion of the mill been converted into condominium units? It is not clear if the condominiums, mill and powerhouse are three distinct structures, or if they are attached to one another. The report’s lack of photographs, existing site plans and other visual aids makes it difficult to understand the relationship of these buildings to each other, the site and the proposed redevelopment and expansion project. It is also noted that the mill appears to be more commonly known as the Maple Leaf Mill.
It is not clear from the report how and if the existing historic mill/powerhouse will be used following the expansion and redevelopment. In section 3.1 Description of the Hydroelectric Facility it states that the existing equipment will be removed and sold once the new facility is operational. In the Table 1: Potential Project Effects and Mitigation Measures it states that the existing facilities will be maintained for operation and that renovations will seek to preserve the aesthetics of the historic mill building. Additionally, Table 1 states that the new powerhouse building will have a flat roof and will be kept at as low an elevation as possible to minimize obstruction to the windows of the historic mill and the condominiums. Again, it is not clear from this statement whether the mill, powerhouse and condominiums are the same building or three separate buildings. Was consideration ever given to maintaining the existing powerhouse rather than erecting a new structure on the site?

Throughout the report it is mentioned that Enerdu will design the new powerhouse in such a way that the aesthetics of the historic mill building are preserved. However, the report does not articulate specifically what the aesthetics or heritage attributes of the building are. This should be done through an evaluation of the structure’s cultural heritage value or interest, which would include identifying the heritage attributes that contribute to or support the structure’s cultural heritage value or interest. Additionally, the report does not provide sufficient detail in terms of identifying other potential or known cultural heritage resources within or adjacent to the study area. This would include such structures as the railway bridge crossing over the river, around which the works will be constructed, as well as additional built heritage resources in the surrounding area, including other historic mills.

Furthermore, as stated in the Parent Class EA document for Waterpower Projects, for cultural heritage resources, regardless of potential benefits or level of effect, any project that may affect a built heritage resource, cultural heritage landscape, a known archaeological site, or an area of archaeological potential may require further technical heritage studies by qualified persons. It is clear from the information presented in the report that a heritage impact assessment (HIA) should be prepared for this project. The HIA is a necessary component of project planning and the EA study, and needs to be prepared prior to finalizing the EA. The HIA would include the following steps:

1. Historical research and site analysis
2. Evaluation of any potential built heritage resources and cultural heritage landscapes using the criteria laid out in Ontario Regulation 90/06 under the Ontario Heritage Act
3. Identification of the cultural heritage value or interest and heritage attributes of any identified resources
4. Description of the proposed development / site alteration
5. Evaluation of impacts
6. Consideration of alternatives, mitigation and conservation methods
7. Implementation and monitoring schedules
8. Summary statement and conservation recommendations

The HIA would guide the conservation of identified built heritage resources and cultural heritage landscapes. Additionally, it would guide the design of any new structures to ensure that they are sympathetic to the cultural heritage value and attributes of adjacent structures, as well as the broader heritage context of the surrounding Almonte area. Additionally, the ministry notes that the Town of Mississippi Mills Official Plan contains fairly comprehensive heritage conservation policies, including one that establishes the Municipal Heritage Committee’s role in advising and assisting with heritage resource conservation matters within the municipality. Therefore, it is suggested that Enerdu make commitments to consult with the committee on any proposed alterations to heritage resources within the study area, as well as the design of any new structures.

The above are comments from the Ministry of Tourism, Culture and Sport on the Environmental Report prepared for the Enerdu GS Expansion and Redevelopment Project. We would be pleased to discuss any of our comments and/or provide additional information. We would also appreciate being kept informed regarding the manner in which MTCS’s input has been considered, and wish to remain on the circulation list for this project.

Regards,

Paula Kulpa
Team Lead – Heritage Land Use Planning
Culture Services Unit 1 Ministry of Tourism, Culture & Sport
(t) 613.314.7137 (c) paula.kulpa@ontario.ca

Cc: Jon Orpina, Environmental Coordinator/Planner
Ministry of the Environment

Mr. Ron Campbell, Enerdu Power Systems Inc.
## Appendix 4: Public Comments Addressed in March 2013

<table>
<thead>
<tr>
<th>Concern</th>
<th>Enerdu Response</th>
<th>HIA Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual impacts related to water flow and storage</td>
<td>No changes to the water levels upstream or downstream.</td>
<td>Mississippi River Cultural Landscape</td>
</tr>
<tr>
<td>Appearance of the new power plant structure</td>
<td>Final drawings are pending.</td>
<td>Almonte Flour Mill Landscape</td>
</tr>
<tr>
<td>Excavation activities</td>
<td>In the unlikely event of damages to surrounding structures as a result of the excavation activities, the contractor conducting the excavation would be responsible for the necessary repairs.</td>
<td>Construction Phase</td>
</tr>
<tr>
<td>Public access to the river</td>
<td>Safe access to the river would not be compromised. During construction temporary access would be required but restrictions would be removed once construction is complete.</td>
<td>Construction Phase</td>
</tr>
<tr>
<td>Powerhouse noise</td>
<td>A noise assessment will be conducted and the powerhouse will be designed to ensure outside noise levels do not exceed the regulatory requirements of Section 8 of the EPA.</td>
<td>Mississippi River Cultural Landscape</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Almonte Flour Mill Landscape</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adjacent Built Heritage</td>
</tr>
</tbody>
</table>
Appendix 5: Recommended Process for Town of Mississippi Mills Input into the Powerhouse Design

Goals

Following is a proposed approach to ensure the best possible design for the powerhouse that addresses the proponent’s interests and requirements, and the community’s interest in protecting the heritage value of Almonte

Principles

- Design review will be managed by the Town of Mississippi Mills
- Terms of reference and objectives of the advisory committee will be developed by the Town with approval by the proponent
- Invitation to sit on the design advisory committee (likely 5 people – councillors, public at large, and heritage committee member) will come from the Town
- Individuals participating in the advisory committee will agree to work constructively
- Responsibility for choosing the final design rests with the proponent

Steps

Meeting 1

- Architect visits the site with the advisory committee, discusses the project requirements and identifies heritage concerns that should be addressed in the design

Meeting 2

- Architect returns to Almonte with a concept and exterior design treatment for review and comment by the design advisory committee

Meeting 3

- Architect addresses the comments and prepares a final design for final review and comment by the advisory committee

Final Submission

- The Town of Mississippi Mills receives the final design to be used for the purposes of the building permit