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Dear Mr Campbell and Ms. Kim:

**Re: Environmental Report (ER) for the Enerdu Generating Station Expansion and Redevelopment Project (December 2012)**

The Ottawa Valley Chapter of the Canadian Parks and Wilderness Society (CPAWS-OV) has for the past 43 years worked to ensure the protection of important natural areas and endangered species in eastern Ontario. Therefore, on behalf of our ~1000 members, we wish to make the following comments and ask for clarification on several critical aspects of the Environmental Report (ER) for the Enerdu Generating Station Expansion and Redevelopment Project in Almonte on the Mississippi River.

**Deficiencies in the ER**

We find that the ER is deficient and misleading in regard to many issues. We restrict our comments and questions mainly to several key environmental issues.

**(a) ZONE OF POTENTIAL IMPACT/INFLUENCE:**

The areas that are described in the ER as either a *Zone of Potential Impact* (p. 18, 28) or a *Zone of Potential Influence* (Figure 1, p. 2) are very misleading. The Zone of Potential Impact must be broadened greatly to include the true area of potential impact which extends the entire length of Reach 18 as far as the Appleton dam, as well as the adjacent shoreline and wetlands. It is critical that environmental and other issues be identified and addressed throughout this true Zone of Potential Impact, not just at location of the dam and hydro facility.

Specifically, on p. 28, it is noted that “the zone of potential impact is limited to the riparian area within the lands owned by the proponent and a section of the north and south shoreline ...”. Presumably this is the area that is shown in the map on p. 2 and labelled Zone of Potential Influence.

Elsewhere, on page 18, it is stated that the “primary area of potential impact is therefore the portion of river system between the dam intake and the powerhouse/tailrace area”, which would not even include the major excavation of bedrock in the river upstream of the dam intake described in the Conceptual Engineering Design document (Annex I).

The Project Description (Appendix A, p. 10) states that “the weir/spillway gate could serve to increase water levels at the Almonte Fairgrounds”. This would indicate that the Zone of Potential Impact should extend at least to the Almonte Fairgrounds.

It is also well known that at times since 2004 the existing hydro facility has caused elevated water levels as far upstream as the Appleton Wetland Area of Scientific Interest (ANSI) and the Appleton dam, a distance of ~9 km. There is no indication that an expanded facility will not also cause elevated water levels to the Appleton dam. It has also been reported by the Mississippi Valley Field Naturalists and the Mississippi RiverWatchers that even the existing facility has caused serious damage to the Appleton Wetland ANSI as a result of the elevated water levels (see further discussion below). This indicates that the Zone of Potential Influence must extend to the Appleton dam and include the entire Appleton Wetland ANSI.

**Questions:** Why does the Zone of Potential Impact not extend up to and including the Appleton Wetland ANSI? Why have studies related to the entire length of Reach 18 not been carried out? How could an expanded facility not affect the Appleton Wetland ANSI when even the current facility has raised water levels within the wetland?

**Recommendation:** CPAWS-OV recommends that the Zone of Potential Impact be expanded to encompass Reach 18, and adjacent lands and the Appleton Wetland ANSI, and that comprehensive studies be carried out to quantify the potential impact.

## **(2) RUN-OF-RIVER:**

The existing facility and proposed expansion are repeatedly described as run-of-river in the ER. This is incorrect and will mislead the public into believing (incorrectly) that the facility will operate essentially using the river’s natural flow, and hence have much less impact on the environment than is actually the case.

Run-of-river projects are defined as those that essentially utilize the river’s *natural* flow. Indeed, even the ER itself (p. 18) states: “As the name suggests, a run-of-river facility is generally designed to utilize the water of a river system at its naturally occurring rate of flow, with essentially no water storage” (our underline).

This is clearly not the case with either the existing facility or the proposed expanded facility. Firstly, as noted earlier, even the existing facility has at times raised water levels ~9 km upstream of the dam. This amounts to a major storage of water and is not consistent with the run-of-river definition. Secondly, the proposed expansion involves the removal of up to 4164 m<sup>3</sup> (2082 m<sup>2</sup> x up to 2 m deep) of the river bedrock upstream of the dam intake (ER, p. 14), as well as other major excavations elsewhere. This will clearly and permanently alter the river flow, and therefore is not consistent with the run-of-river definition. Thirdly, we understand that the current facility operates at certain times in a peaking mode. This is not consistent with the run-of-river definition.

**Questions:** Why is the proponent repeatedly referring to the existing facility and proposal for an expanded facility as run-of-river, when they clearly do not satisfy the run-of-river definition? Will the proponent remove all such reference from the ER and associated documents?

**Recommendation:** In order that the public not be misled, CPAWS-OV recommends that it be made clear in the ER and accompanying documents that the existing and proposed facilities are not run-of-river.

### **(3) APPLETON WETLAND ANSI:**

The Appleton Wetland ANSI is a large, and critically important natural area that extends for several km along Reach 18 not far above the Enerdu hydro facility. It is designated as a Provincially Significant Wetland. Eastern Ontario's remaining intact wetlands are of great importance given that a large percentage have been lost to various forms of development over the past century or more, and many others are highly degraded. They are areas of high biodiversity and critical to a healthy ecosystem.

It is our understanding that since 2004 the current hydro facility has at times raised water levels within the wetland. An analysis of the Appleton wetland and a comparison with other wetlands in the area carried out by the Mississippi Valley Field Naturalists and the Mississippi RiverWatchers has concluded that these higher levels have caused serious damage, killing a significant portion of the maples that form much of the wetland canopy. It is also our understanding that the Standing Committee of the Mississippi River Water Management Plan (MRWMP) has recommended that an amendment be made to the MRWMP to lower water levels in Reach 18 (and therefore in the Appleton Wetland ANSI) to their pre-2004 levels.

It is likely that an expanded hydro facility will also harm the wetland. Therefore, it is critical that

- (a) the wetland be included within the Zone of Potential Impact (see above);
- (b) the effect of the current and expanded facility on the wetland be studied;
- (c) the effect of the current and expanded facility on the wetland be fully discussed in the ER;
- (d) if damage is being done by the existing facility as reliably reported, then the issue be addressed before any expansion of the facility is considered.

**Questions:** Have water levels in the Appleton Wetland ANSI been raised at certain times due to the existing hydro facility? Will the expanded facility also raise water levels there? Why has this issue not been discussed in detail in the ER given that it has been raised repeatedly during public consultations? Why has the recommendation of the Standing Committee not been included and discussed in the ER?

**Recommendation:** CPAWS-OV recommends that the recommendation of the Standing Committee to lower water levels in reach 18 to their pre-2004 level be implemented in order to help restore the ecological integrity of the Appleton Wetland ANSI.

CPAWS-OV recommends that the proponent of the proposed expansion be required to ensure that no further flooding of the Appleton Wetland ANSI by the existing facility takes place, *before* any expansion of the facility is considered.

#### (4) SPECIES AT RISK:

Information in the ER with respect to Species at Risk is misleading or incomplete. For example:

##### ***American Eel***

The American Eel is a provincially designated Endangered species. Its numbers and range have shown catastrophic decline in recent decades – largely as the result of the proliferation of dams and hydro facilities, as documented in the Draft Recovery Strategy for the American Eel (*Anguilla rostrata*) in Ontario.

The ER (p. 31) indicates that the proponent “commits to provide upstream and downstream passage for American eel in order to satisfy the ESA. The exact measures will be developed during discussions with the MNR and the Algonquins of Ontario”. Some vague options are mentioned elsewhere (e.g. p. 74-75). But no concrete plan to provide effective passage the American Eel is provided. This is a major deficiency in the ER.

The Draft Recovery Strategy makes clear the importance and need to restore this species to its former range. Therefore, the ER should include a detailed plan for upstream and downstream passage. Claiming that this will be done at some unspecified future date is totally unacceptable.

**Question:** Why has a detailed plan for American Eel passage not been included in the ER, as this is clearly a critical element of any redevelopment of the facility? Why have discussions with the MNR and First Nations to identify a viable option not be completed prior to issuing the ER?

**Recommendation:** The proponent should be required to outline a detailed and viable plan to accommodate American Eel passage at the expanded facility before the project is allowed to proceed further.

##### ***Rapids Clubtail dragonfly***

The Rapids Clubtail is listed as Endangered federally and provincially. The ER (p. 30) states that the species was not observed during site visits and “therefore the species is considered absent”.

Unfortunately this statement shows an alarming lack of understanding of this species.

(a) The Rapids Clubtail has been recently (2010) observed at Almonte as documented on page 3 of the Recovery Strategy for the Rapids Clubtail (*Gomphus quadricolor*) in Ontario. Therefore, it must be considered present even if it was not observed in the site visits.

(b) It is well-known that observing the Rapids Clubtail, even for experts, is extremely difficult, and the species many go undetected for many years, even where it is present. For example, the Rapids Clubtail was reported in 1939 near Kleinberg on the Humber River, and then not again until 2005 (Recovery Strategy, p. 3). So the fact that the Rapids Clubtail was not observed in site visits in the present case does not mean that the species is absent.

(c) Given that the Rapids Clubtail is only known from five or six localities in Ontario (see Recovery Strategy) it is imperative for its survival that its habitat at and near these sites be left as undisturbed as possible. Attempting to dismiss the species as “considered absent” is not acceptable.

(d) The Recovery Strategy makes clear that the habitat at the known sites (which includes Almonte) which must be protected includes “the rapids and the pools below the rapids, plus the wooded shores on either side extending inland to include any forest which is within 800 metres of the shoreline” (p. iii).

**Questions:** Is the proponent familiar with the details of the Recovery Strategy and and the Government Response document which outline the importance of the Rapids Clubtail and its habitat. Is the proponent aware that Almonte is considered one of the very few known sites for the species in Ontario? If so, why has the species been deemed as absent in the ER?

**Recommendation:** CPAWS-OV recommends that the ER be rewritten with respect to the Rapids Clubtail to indicate that the Almonte is one of the known locations of the species and that details be given concerning how its aquatic and terrestrial habitat will be protected.

#### **(5) DECOMISSIONING:**

Dams and hydro facilities have a finite lifespan, at the end of which they need to be rebuilt or removed. It is critical that funds be in place to allow environmentally-sensitive decommissioning of the hydro facility.

*Question:* Are funds being provided by the proponent to cover the future costs of decommissioning the facility? If not, why not?

*Recommendation:* CPAWS-OV recommends that the full cost of decommissioning the facility at some future date be calculated and provided up-front by the proponent.

#### **CONCLUSION**

CPAWS-OV has grave concerns about the ER and its many deficiencies related to environmental issues. Unless these concerns are addressed it is our opinion that the proposed expansion of the Enerdu hydro facility at Almonte is likely to have a significant negative impact on the ecological integrity of the area, especially the important Appleton Wetland ANSI, and potentially on Species at Risk. Unless these concerns are addressed the proposal should not be allowed to proceed.

We would be pleased to meet with you to discuss these concerns in greater detail and to learn of any planned mitigation measures being planned.

Sincerely,

*John McDonnell*

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Canadian Parks and Wilderness Society

CC:

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