

## Frequently Asked Questions: Proposed Big Eddy Project at Railroad Rapids

Please find below the answers to some commonly asked questions about Xeneca's proposed Big Eddy Project at Railroad Rapids. These answers are based on the best information currently available and may change as new data becomes available.

- 1. Mr. Mark Holmes has committed to the Mayor of Petawawa on several occasions in the past that there will be no kind of concrete dam in the Petawawa River. However, Xeneca's Project Description (section 2.1.5 and Appendix A, plate 12A) clearly describes a "broad overflow weir topped by a control structure". Will Xeneca confirm that such a structure is now part of the reference design?**

Public input has contributed to many changes in the project conceptual design since the Project Description was published. The overflow weir structure (which is different from a dam as dams do not allow water to flow over them) continues to be under review based on environmental, recreational and safety concerns. Final decisions will be made following all Agency and stakeholder input and will then be incorporated into the revised conceptual design.

- 2. What is the current scheduled date for the Notice of Completion and Notice of Inspection?**

A Notice of Inspection is not required for a project proposed on a managed waterway (see Q3 below); a legal review has been conducted to confirm Petawawa River is a managed waterway.

A Notice of Completion is issued when Xeneca believes that the EA Report is complete. The report is typically posted for public review after working with Provincial and Federal Agencies to identify concerns and impacts. The report is made available to Agencies, First Nations and the public for 30 days of review and comment. Xeneca has taken the additional step of providing, thereafter, a 30 day engagement period to meet with those that have submitted written comments. As required, the EA Report may then be revised and either reposted for public review, or Xeneca will ask the Ontario Ministry of Environments (MOE) to commence its 60 day assessment period. If deemed acceptable, the MOE will issue a Statement of Completion. It is expected that the Notice of Completion will occur sometime in late 2011.

- 3. On what basis was the Notice of Commencement revised (on or about 24 Dec, 2010) to change the status of the waterway from "unmanaged" to "managed"?**

The Class EA for Waterpower was recently amended to include a clearer definition of managed vs. unmanaged. The amendment was made after a legal review indicated it was a managed waterway. The intent of the policy was to provide a more thorough review of undisturbed waterways such as those found in the far north of the Province. A managed waterway is a waterway that is already subject to water level and or flow management. The Petawawa River falls under this definition.

- 4. We note that the Project Description is undated, and does not include a revision history. Nor is there any indication of the author, reviewer, or approver. This is typical of the other Xeneca documents we have seen. We have wasted valuable time on reviewing documents that are now being claimed to be "out-of-date". Please confirm that future documents will be subject to revision control, and will identify the individuals accountable for their production.**

In most developments, preliminary investigations consider a wide variety of project alternatives. A range of options are reviewed and the proponent's preferred option put forward in the Project Description (PD) for regulatory review. The PD is an early planning document towards initiating dialogue and soliciting input. Future documents may also be revised after regulatory review of draft submissions and other stakeholders' input. During this consultation process, stakeholder input has helped to shape the Petawawa projects and is likely to continue to influence final project design.

5. ***Please provide and maintain on Xeneca's website a listing of all project documents containing descriptive information (existing and proposed) including the issue date (actual or scheduled), the currency status, and a document abstract. This is necessary to that the public has access to the information necessary for them to gain a good understanding of the project, which is implicit in the Class EA process.***

All applicable project information will be placed on Xeneca's website and, upon request, may be e-mailed. Relevant information will also be available at public events held in Petawawa and in the Waterpower Class Environmental Assessment.

All significant project information including technical reports, regulator meeting minutes, field investigations, etc. will be included in the EA Report, to be issued once the environmental assessment planning process is complete.

6. ***Please provide a copy of the public safety requirements that apply to this project, bearing in mind that the area downstream, starting 700 metres from the powerhouse is heavily used for recreation. In a previous response to this request, you passed the buck to the President of the Ontario Waterpower Association. He provided links to a series of 5 volumes entitled "Technical Guidelines and Requirements for Approval under the Lakes and Rivers Improvement Act". However, these documents are headed "Draft – for discussion purposes only". It is hardly reassuring to note that, in volume III of these documents, the Big Eddy dam would appear to have a Hazard Potential Classification of High to Very High, and that, in Volume IV, the weir structure proposed for Big Eddy is referred to as a "Drowning Machine". However, what I need are the requirements that will actually apply to the Big Eddy project.***

***As project proponent, it is not acceptable that you should have to refer me to another agency for answers on this critical subject.***

Although a standard comprehensive list does not exist, there are professional engineers working on all phases of the project, from concept to design through to construction. An independent, fully-qualified engineering firm will thoroughly review the safety aspects of Xeneca's facilities. It is Xeneca's intention to ensure the facility poses no additional hazard to river users than currently exists and the Ministry of Natural Resources and Transport Canada will be involved in ensuring this occurs. Please note that the Big Eddy project will be operated as a run-of-river facility. This type of operation requires no changes to the natural flows downstream of the facility. We do not expect any change to the downstream recreational uses of the river due to the project.

7. ***Is it Xeneca's intent to operate the Big Eddy plant using a modified peaking strategy (i.e. a strategy where flow is varied daily and hourly to take advantage of the 35% incentive offered by the FIT program to facilities that can deliver power at peak periods), as stated in the Project Overview document?***

Xeneca's intent is to operate the proposed Big Eddy project at Railroad Rapids as a run-of-river facility. This means that the natural flow upstream of the facility will not be modified. The resulting downstream flows will equal the flows that would naturally occur without the facility. The only changes to flow will occur over a 300 metre stretch from the intake (upstream of Railroad Rapids) to the tailrace outflow (immediately upstream of Petawawa Blvd.) In this reach of the river, part of the flow will go through the facility to generate electricity.

8. ***Please provide 12 sets of numeric data (1 set per month) on the daily flow cycle that Xeneca will commit to in their dam operating plan for each month of the year, assuming average monthly historic flows. Please provide maps of the maximum downstream area of inundation for each data set. This information is necessary to assess the safety impact on the public.***

Operating Plans are being reviewed on an ongoing basis by key Provincial and Federal Agencies. Since the proposed Big Eddy project is run-of-river, the flow will not be modified and the only variation will relate to the natural variation of flow in the river. It is important to note that there will be no downstream inundation. This information will be provided in the EA Report.

9. ***What is the calculated failure frequency of the level control structure (in engineering terms, this is the Mean Time Between Failures, or MTBF)? The MTBF must account for failures in the computer control system. This is necessary to assess the risk that the relatively unreliable control structure (relative to a properly engineered concrete dam, that is) represents to the public.***

Final design of the control structure is not yet complete (the EA requires preliminary design stage only); therefore this data is not yet available. The conceptual design includes an overflow weir, not exceeding 1.5 metres (5 feet) in height and designed as a sloped structure that allows kayak navigation over it. The typical design life of such structures is in excess of 40 years. If the generator were to stop, any water otherwise flowing through the generator would now flow over the weir. In the reverse case, a sudden start of the generator would cause water to be diverted away from the weir and through the generator. At the tailrace outflow, where the water from the generator and the weir overflow re-joins, the combined flow should generally remain unchanged and equal the natural flow upstream. The resulting risk to the public is believed to be small due to this fail-safe design. However, a safety study on this topic has been initiated to further assess any risks related to the failure of the level control system. More information on this topic will be provided in the EA Report.

10. ***If the failure frequency of the level control structure exceeds the safety requirements, what approach is proposed to raise the overall safety of the installation to meet these requirements?***

As stated above, the conceptual design is believed to minimize concerns about safety as the flows upstream and downstream of the facility are expected to equal natural flows. As noted above, a safety study is underway to identify any operational malfunctions that could result in unexpected flow variability resulting from sudden start-ups or shut-downs of the facility and recommend safety systems, fail-safe controls or engineering redundancy to minimize such “malfunction risks.” The concern will be noted in the EA Report along with the results of the safety study.

11. ***Will Xeneca commit in writing complete the design to the point that the details of all safety-related features (barriers, horns, lights, etc) are approved before construction commences?***

We commit to developing a comprehensive Safety Program which will be followed throughout the stages of development and operation. The safety program will include input from and be reviewed by a qualified, third-party independent engineering firm, the Ministry of Natural Resources and Transport Canada

12. ***Why are daily flow and headpond level variations not listed in the Project Description as a threat to aquatic wildlife to be examined in the EA? Will they be added?***

As the Project Description (PD) is a planning document designed to stimulate public and agency input, and final determinations on impacts and mitigation measures are still months away. The determination of project impacts and proposed measures to mitigate/minimize the impacts will be presented in the EA Report.

13. ***Please provide the minimum residual flow value to be committed to for this project so we have time to carry out our own analysis of the consequences of this number. Please provide an indication of the expected downstream extent of any area where river flow will be, even temporarily, reduced to a value below that of the river flow into the headpond. This is necessary to assess the aesthetic impact of the project. To state, as has been done in the Project Description, that "the determination of this effect is positive or negative" is cynical to say the least.***

Xeneca’s intent is to operate the proposed Big Eddy project at Railroad Rapids as a run-of-river facility. This means that the natural flow upstream of the facility will not be modified. The resulting downstream flows will equal the flows that would naturally occur without the facility. The only changes to flow will occur over a 300 metre stretch from the intake (upstream of Railroad Rapids) to the tailrace outflow (immediately upstream of Petawawa Blvd). In this reach of the river, part of the flow will go through the facility to generate electricity. This diversion will result in reduced flows in this 300 metre stretch. Flows upstream and downstream will remain unaffected. More information will be provided in the EA Report.

**14. Please confirm that the “Operational Zone of Influence”, which according to the PD is currently “unknown”, is the area of the river that will be affected once the plant is operational.**

***If this is the case, how can an environmental assessment even start as long as this area remains “unknown”? Please confirm that the project will, in fact, influence the downstream flows (both positive and negative) at least as far as the last set of rapids before the Ottawa River.***

The Operational Zone of Influence will be the creation of the headpond, as well as the reduction in flows in the reach of river from the intake (upstream of Railroad Rapids) through to the tailrace outflow (upstream of Petawawa Blvd.) It is important to emphasize that there will be no operational effect on flows downstream as a result of the project.

**15. Since no solution is available to permit sturgeon to bypass the dam, what mitigating features are proposed to make this project environmentally acceptable for the Petawawa River?**

Structure designs are being examined that will allow fish passage. Fisheries and Oceans Canada and the MNR will be involved in ensuring this issue is addressed as part of the EA Report and when the Detailed Project Design is issued to DFO after the EA Report is completed.

**16. If peaking will not be employed, why does the design employ Obermeyer gates, since a simple, manually adjustable sluice gate would appear to offer a cheaper, more reliable design solution for simple run-of-the river operation? Will Xeneca commit to removing these gates from the reference design, since that would reduce the concern that Xeneca, or some other future owner, could switch to a peaking strategy once the plant is in operation.**

It is likely that no gate will be involved in the final design of the overflow weir structure. If a gate is used, it will be for flood safety use only.

The purpose of the Obermeyer gates would be to reduce the height of the overflow weir during flood events. Such gates can help minimize the upstream backwater effect resulting from the existence of the weir during flood flows. An Obermeyer gate, if used, would replace the need for any manually adjusted sluice gate. Neither an Obermeyer gate nor a sluice gate is required by Xeneca for the production of electricity in run-of-river operation. The final determination depends on flood safety analysis related to the detailed engineering design.

**17. Please provide a map identifying the maximum area of inundation under 100 year flood conditions. Please confirm that this calculation includes a conservative allowance for obstructions caused by ice dams, slush, tree trunks and other water-borne debris that may be trapped in the area of the dam structure.**

Please see attached map on pg. 11. As the proposed weir is a small structure, these factors will not have any significant impact. The weir structure will be designed as an overflow structure that allows debris to flow over the structure with the flow of water.

**18. When will Xeneca publish their “Schedule of consultation events” per section 6.2 of the Class EA? Specifically, what is the current scheduled date for public open house meetings, and for the Notice of Completion?**

Newspaper notices of events will be placed in local newspapers at least two weeks in advance. Further, stakeholders who have requested notification will receive information via e-mail. The Xeneca website may also be used to provide updates and notices. The Notice of Completion is still several months in the future, and will be placed in local media when the Environmental Report is ready for public review.

**19. Since the powerhouse tailrace flow will apparently comprise a high percentage of the total river flow, and will now be directed across the natural river flow towards the south bank of the river, the south foundation of the Petawawa River bridge, and perhaps even as far as the already eroded bank in the area of the Legion, please provide an analysis that demonstrates that there will be no adverse erosive effects in these areas over the 40 year life of the dam and beyond.**

It is believed that the natural flood flows are the primary factor in the historic erosion in this part of the river. The maximum flow rate from the facility tailrace outflow will be 60 m<sup>3</sup>/sec. The river's maximum flood flow rate is 400 m<sup>3</sup>/sec; therefore the facility discharge will be well below natural flood flows in the river. The tailrace discharge will be aligned so as not to increase the bank erosion downstream. Tailrace discharges are typically at a lower velocity and lower energy level than the natural flow down Railroad Rapids. The shape of the tailrace will be designed to further minimize the flow velocities. This inherent stilling effect should mitigate any erosion concerns related to the operation of the facility. However, the facility will not prevent the natural erosion that already occurs. Further analysis of this concern will be addressed in the detailed engineering design of the facility.

**20. It is my understanding that Xeneca is now examining the feasibility of providing a "concrete and rubble ditch" to ensure the "navigability" of the river downstream of the dam. What will be the downstream extent of this ditch, given that reduced flows downstream of the powerhouse will occur on a daily basis?**

This has not been discussed as an option. Hydraulic modeling will be used to determine river navigability in the reach below the weir site. These models will simulate waterflow at the intake, over the weir, down the reach and at the tailrace. The models will also be reviewed for safety and navigability over a wide range of river flows and bypass flows before any possible modification of the riverbed would be considered.

**21. Does Xeneca agree that kayakers are unlikely to be attracted to a "concrete and rubble ditch", and consequently the project will destroy one of the premier urban kayaking sites in North America?**

We are aware of the importance of the Petawawa River to the paddling community and are working with various groups to receive feedback as we move through the conceptual design phase. This issue will be addressed in the EA Report with a process to meet these issues thereafter.

**22. Why is there no mention of downstream public safety effects in Table 5.1 of the PD?**

There will be no impact downstream as a result of the proposed project.

**23. If the frequency of failure of the control structure exceeds the safety requirements, what approach is proposed to raise the overall safety of the installation to meet these requirements?**

Xeneca has hired an independent, third-party engineering firm to review our Safety Program, which will be shared with the public as part of the Class EA.

**24. Since the only long-term economic advantage to the community appears to be the percentage of revenue which has apparently been offered to the town, but is not mentioned in section 1.1.4 of the PD, will Xeneca quantify this benefit?**

Benefits to the town will accrue in several forms, including:

- taxes paid by the project;
- revenues from leasing agreements;
- the construction related economic stimulus of approximately \$12 million;
- locally generated and locally consumed electricity; and
- generating green electricity.

**25. Will there be horn activation and flashing lights to warn of increased river flow when flow through the turbine is increasing, and if so, what will be the noise level of these horns?**

As natural river flows will not be altered except in the 300 metre reach between the CPR Bridge & Petawawa Blvd., there will likely be no need for lights & horns. This will be considered in the Safety Program.



**26. What are the chances of damage to a downstream property owner's river frontage when a "tide" of water from full operation of the turbine passes his frontage?**

As the project is run-of-river, natural river flows will not be altered downstream of the project. There will be no change and this impact will not occur.

**27. What effect will variable flow have on the islands, sand buildup on the Ottawa River where the Petawawa enters it?**

There will be no effect on natural flows downstream and this impact will not occur beyond what occurs naturally in the river with or without the project.

**28. If members of the public are using the river downstream from the outlet from the turbine can they be fined? There is apparently a \$5000 fine for being within the barriers on the Madawaska.**

The facilities on the Madawaska River are very different from the relatively small run-of-river facility proposed here. Transport Canada governs navigation access to waterways under the Navigable Waters Protection Act. The Lakes & Rivers Improvement Act under MNR preserves the use of lakes and rivers, and the public rights for use. Public safety concerns may require reasonable access restrictions to the immediate area of the turbine outflow at the powerhouse. The flows downstream of the facility will remain unchanged due to the operation of the project and Xeneca has no rights to or authority over the uses of the river downstream of the facility.

**29. Has an inventory of migratory fish been done for the Petawawa River? A monitoring plan should be prepared for both before and after construction.**

Biology studies have been done and we are monitoring the area. We are undertaking additional/ongoing surveys to fill in data gaps noted by the baseline studies performed in 2010. Scoping of the required studies was determined with MNR, DFO and Algonquin Park staff. Regulatory agencies will determine the level of pre-construction, construction and post-construction monitoring.

**30. Will any fences be affected by ice?**

Fencing requirements have not yet been assessed.

**31. Please provide a human factors analysis to demonstrate in a convincing way that, in an area of high recreational activity, it is reasonable to assume that the public will respond in a safe fashion to the sirens, flashing lights, and signage described in Volume IV of the safety requirements documents provided by the OWA.**

A thorough review of safety provisions will be available to the public in advance final design. We are working with a third-party engineering firm to develop of Safety Program, which will be available to the public once it is complete. Xeneca will continue to work with the community of Petawawa to address safety concerns. It should be reiterated that this is a run-of-river operation that does not involve changes to the natural river flows downstream of the facility. We do not expect the recreational uses downstream of the facility to be affected.

**32. If the public firmly opposes the project, are you willing walk away from the project, or will Xeneca use all available resources to push the project ahead against the wishes of the local community?**

Xeneca has a contract with the Province of Ontario to move forward to build two renewable energy developments on the Petawawa River. This initiative is part of Ontario's long-term energy plan to build a cleaner energy system for current and future generations. The approval of the project depends on the outcome of the environmental assessment process. It is Xeneca's intent to build the facility in a manner that will have minimal impacts and is respectful of the many other uses on the river.

**33. How will Xeneca protect and maintain the navigability and the quality of the recreational use of the river in the affected reach and the section of river downstream of the powerhouse?**

Xeneca is working with Northwest Hydraulic Consultants (NHC) to study a potential weir design that allows kayaks to pass over it. For the 300 metre-long affected reach of river between the intake (upstream of Railroad Rapids) and the tailrace outflow (upstream of Petawawa Blvd.), Xeneca has proposed to provide water at certain designated times to allow recreational uses, such as kayaking, to continue in the affected reach. As this is a run-of-river project, there is no impact on recreational uses downstream.

**34. What specifically are you doing to enhance the recreational use?**

As stated in #33, we are working with NHC to develop a potential weir design that is conducive to recreation. There is potential to add certain types of features that will add to the whitewater experience and Xeneca has committed to ensure that special events like Hell or High Water will not be impacted by the facility. Stakeholder input is very important to this aspect of the project, and we are soliciting comment directly from the paddling community.

**35. How has the recreational community been involved in the planning process?**

Xeneca has met with the paddling community, cottagers and recreational users (including anglers & hunters) to discuss the needs and wants of the paddling community. We have been actively engaging in dialogue with members of the paddling community for some time. Furthermore, several individuals who sit on the Petawawa Stakeholder Advisory Committee are active members of the recreational paddling community.

**36. Will Xeneca release water over the weir on a regular basis to permit the current and historic use of the river for navigation? A portage trail – as mentioned in the Project Description – does not meet these criteria as no known trail exists.**

The project is designed as run-of-river and as such, there will always be water flow over the weir. MNR determines the ecological flow rate and we are obliged to maintain that. For the 300 metre-long affected reach of river between the intake (upstream of Railroad Rapids) and the tailrace outflow (upstream of Petawawa Blvd.), Xeneca has proposed to provide water at certain designated times to allow recreational uses, such as kayaking, to continue in the affected reach. A portage route may be established upon consultation with Transport Canada's Navigable Waters Protection Office and the paddling community.

**37. On what basis was the Notice of Commencement revised to change the status of the waterway from 'unmanaged' to 'managed'? Be specific please, as no management plan is in place for this section of river.**

The Class EA for Waterpower was recently amended to include a clearer definition of 'managed vs. unmanaged' and a legal review has been conducted to confirm Petawawa River is a managed waterway. A managed waterway is a waterway that is already subject to water level and or flow management; the Petawawa River falls under this definition.

**38. Please provide a copy of the public safety requirements that apply to this project, bearing in mind that the area downstream, from the powerhouse is heavily used for recreation.**

All of Xeneca's projects will adhere to the stipulations of our own Dam Safety Program, developed by an independent engineering company. The Safety Program includes a dam safety study, our own Dam Safety Plan and hydraulic studies (for recreational areas.) We are committed to ensuring the safety of all recreational users of the river and our Dam Safety Plan will be made available to the public.

**39. What are the safety standards that must be met? Do they include a project of this style?**

Xeneca will abide by the Ontario draft Dam Safety Plan (*Technical Guidelines and Requirements for Approval under the Lakes & Rivers Improvement Act-Volume 3 Public Safety Around Dams*) and the Canadian Dam Association's *Dam Safety Guidelines & Guidelines for Public Safety around Dams*. All of Xeneca's projects teams & contractors will adhere to the standards set out by regulatory agencies as well as Xeneca's safety mandate, set by our Dam Safety Program.

**40. Please explain in cubic metres / second, the expected variation, and the possible frequency of this variation, in outflow from the powerhouse. Again, please be specific.**

Natural flow levels are between 4 – 400 m<sup>3</sup>/sec. As this proposed project is run-of-river and water will not be stored, the flow below the powerhouse will have this same natural flow. We currently expect that the power plant will have a capacity of 15 – 60 m<sup>3</sup>/sec. This implies that the facility will begin to operate whenever natural flows in the river exceed the required minimum amount to operate (i.e. approximately around 15 m<sup>3</sup>/sec but this depends on the equipment ultimately selected.) At all times, a certain amount of water will overflow the weir to meet environmental requirements of the 300 metre-long reach between the intake and the tailrace outflow. Whenever natural flows exceed 60 m<sup>3</sup>/sec, any excess water will flow over the weir. The water passing through the facility and the water overflowing the weir re-join at the tailrace outflow. This occurs in the area immediately upstream of Petawawa Blvd. Downstream from the outflow, the flow in the river equals the natural river flow. Any variation in flow downstream of the facility will be due to natural factors.

**41. Provide an explanation that details the difference between “run of river with modified peaking” and “run of river” but that there will be “minor” fluctuation in the flows as you or your staff have indicated on several occasions. If there is a change in flow rates, the project, by definition, is not ‘run of river’.**

The proposed Big Eddy project is a true run-of-river design, and therefore will not have modified flows. The flows downstream of the facility will equal the natural flow in the river whether the plant is operating or not. The issue on “minor” fluctuations in flows refers to other question raised by stakeholders around the exact moment of starting and stopping of the facility. At the moment the turbine is started, water begins to flow through the turbine, causing the amount of flow over the weir to slow down. For a brief period of time, while the flow over the weir responds to the changes in flow through the turbine, the combined flow downstream may increase temporarily and then normalize again. During stopping, the reverse can happen for a brief period of time until the flow over the weir increases to make up for the stopping of the turbine. It should be noted that much of the year, the facility will run continuously. Starting and stopping will only occur as the natural flows in the river increase or decrease with changing climatic conditions. Hence the minor fluctuations related to starting or stopping will not occur frequently. Xeneca is examining the issue as part of its safety plan to see how the minor fluctuations can be minimized with engineering solutions.

**42. How does Xeneca propose to ensure that the public retains the right to access public lands and waters in the area upstream, within, and downstream of the weir and powerhouse?**

There will be no impact to the Emerald Trail System. There may be minimal need to fence off isolated areas of the plant and structures. The area above the weir and below the powerhouse will have zero impact from the Big Eddy project.

**43. Please provide the minimum residual flow value to be committed to for this project so we have time to carry out our own analysis of the consequences of this number on the recreational use of the river.**

The provision of ecological flow will be determined through consultation with the MNR and DFO. Transport Canada will be involved as it is the agency that administers the *Navigable Waters Protection Act*. This information will be made available in the EA Report when it is completed.

**44. Please provide an indication of the expected downstream extent of any area where river flow will be, even temporarily, reduced to a value below that of the river flow into the head pond.**

As this is a run-of-river project, downstream flow is equal to the natural flow into the facility.



**45. You indicate that the Big Eddy Project will help increase the reliability of electrical service in periods of blackouts. Can you tell me how many blackouts we have had in the last 2, 3, 5 years, and how many would have been prevented as this seems like valid information in light of your claims.**

Part of Ontario's Long Term Energy Plan is a commitment to invest in reliable and sustainable energy developments, such as small-scale hydro. This type of energy helps to prevent black-outs and brown-outs, as seen in the 1998 ice storm and the 2003 province-wide blackout. The government is looking at a long-term investment in a diverse energy mix as the population of Ontario grows and energy demand changes.

**46. How will the safe passage be maintained for sturgeon, walleye and other sport fish?**

We have an environmental consulting firm conducting studies on fish passage. Big Eddy may use a ramp technology, which will provide passage similar in elevation to what is there naturally, but there is no 100% effective method of providing passage for Sturgeon. Salmonids, walleye and other species are much easier to pass upstream. DFO and MNR will be involved in the eventual solution.

**47. How did you calculate the economic benefits to the Town of Petawawa, as advertised in local papers? Is there a guarantee of local vendors being chosen for the construction? In addition, how many long-term (post-construction) jobs will be guaranteed to operate the dam and powerhouse?**

Xeneca is concerned that, according to correspondence sent to a Northern Ontario municipality, recent changes to GRC payments to communities may be eliminated. Xeneca firmly believes that GRC payments should accrue to municipalities that host waterpower facilities and we will work with communities to lobby Queen's Park for a fair share of revenues to be paid to host communities.

With respect to jobs, whenever possible, Xeneca will procure goods and services from local businesses. During construction we estimate that we will require 10,000 person hours of labour per MW. Once commissioned, the facilities will require approximately two positions to undertake regular maintenance and safety checks.

**48. Is Xeneca willing to share the Notice of Inspection and/or subsequent Environmental Report with those who have requested it within 14 days of completing the report? If not, please explain your reasoning, as this document is considered an important component of the public consultation process.**

The EA Report, to be issued under the Class EA for Waterpower Projects, will be available for public comment for 30 days.

**49. You indicated in your literature that this will bring jobs to the local community - there has not been a project similar to this ever in the Petawawa community, so from where will you employ experienced professionals, as they will not come from our community? Does this mean you will employ people from out of town and not from our community?**

When the construction phase approaches Xeneca will be accepting RFPs for work and supplies. All work on the project will be done by certified professionals, trades-people and labourers. Where these requirements can be sourced locally and at competitive rates, Xeneca is committed to giving local contractors and suppliers preference. At minimum, local businesses will be procured for lodging and food.

**50. What is the emergency backup plan or disaster recovery plan you have in place in case of all mechanical / structural / technical failures?**

The final design and work will meet or exceed all professional standards and best practices.

**51. Will the project warn swimmers, river users of water coming downstream - how? Will sirens be turned on, horns? How will the community know to get out of the way of the coming water?**

There will never be enough water held back to create dangerous flows. It is important to emphasize that the Catwalk swimming area will have a ZERO impact as a result of this project. Xeneca will not be altering river flows with its proposed Big Eddy project.

**52. People I have spoken with that have used the Petawawa river comment how low the water has been in these past few years. How does that come into play for your project? How will this low water affect the project?**

We have been collecting historic data on water levels and studying it. The findings will be presented in the EA Report. The facility will not operate when flows are very low.

**53. Have there been inclusions in any environmental studies or natural resources studies that take into account the river beds and the species that live there or rely on the water banks? What about bank erosion?**

Yes. We have retained an environmental consulting firm to carry out these studies and many more.

# Big Eddy Inundation Map

